

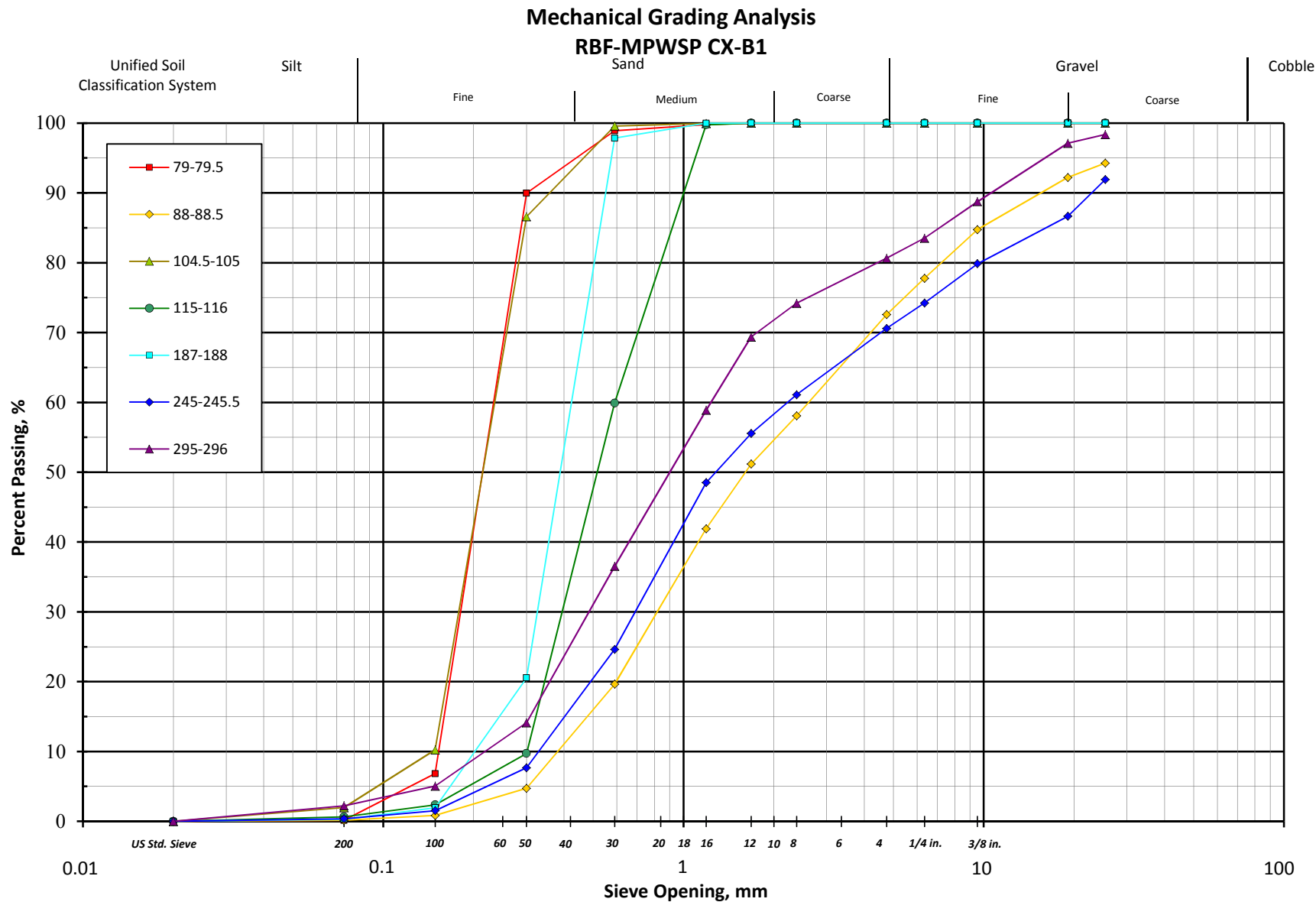
APPENDIX D
Mechanical Grading Analyses – Formation Materials



APPENDIX D:
MECHANICAL GRADING ANALYSES – FORMATION MATERIALS

CONTENTS

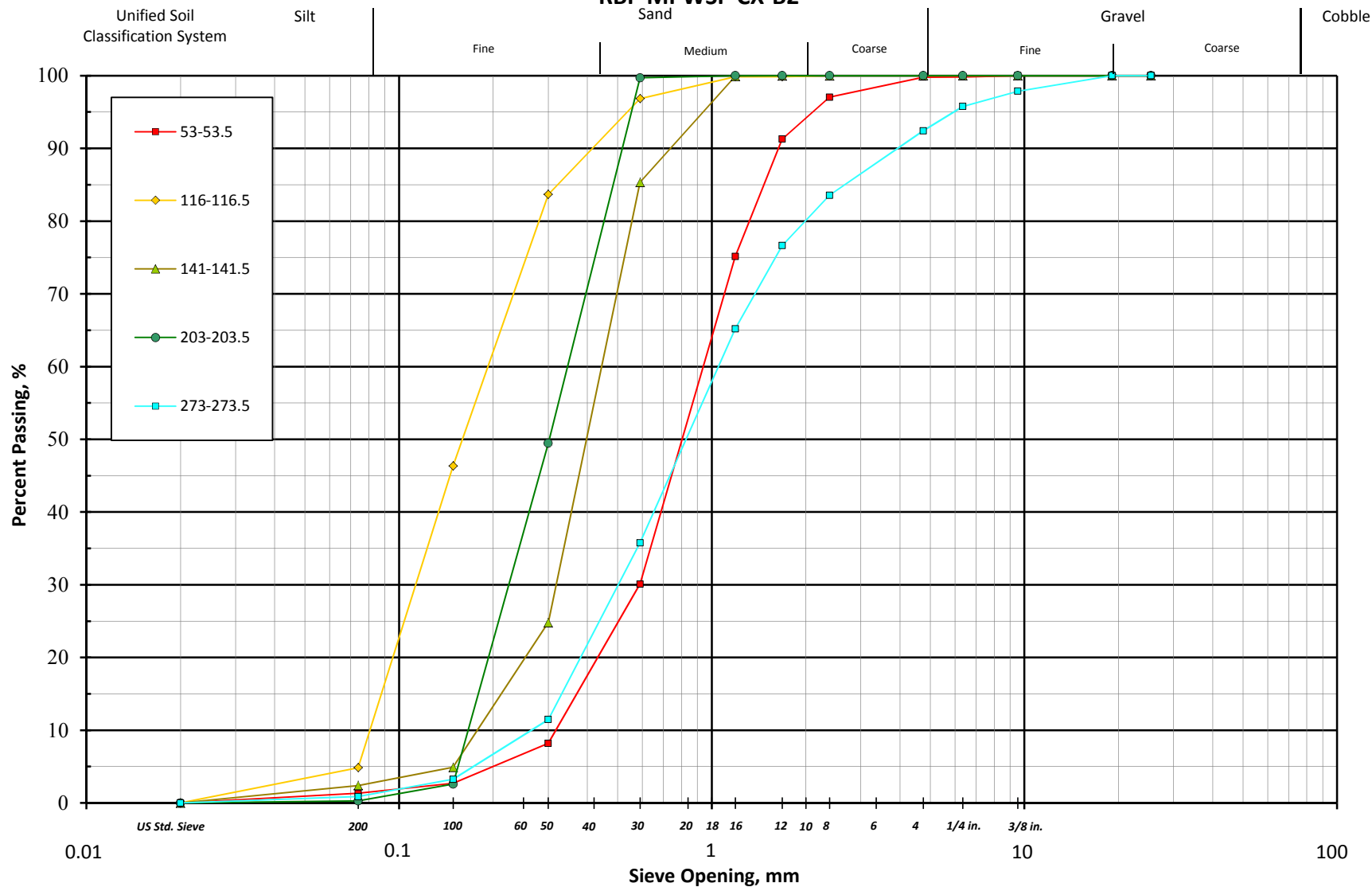
Description	Page
<i>Borehole CX-B1</i>	<i>D-1</i>
<i>Borehole CX-B2</i>	<i>D-2</i>
<i>Borehole CX-B3</i>	<i>D-3</i>
<i>Borehole CX-B4</i>	<i>D-4</i>
<i>Borehole MDW-1</i>	<i>D-5</i>
<i>Borehole ML-1</i>	<i>D-6</i>
<i>Borehole ML-2</i>	<i>D-7</i>
<i>Borehole ML-3</i>	<i>D-8</i>
<i>Borehole ML-4</i>	<i>D-9</i>
<i>Borehole ML-6</i>	<i>D-10</i>
<i>Borehole PR-1</i>	<i>D-11</i>



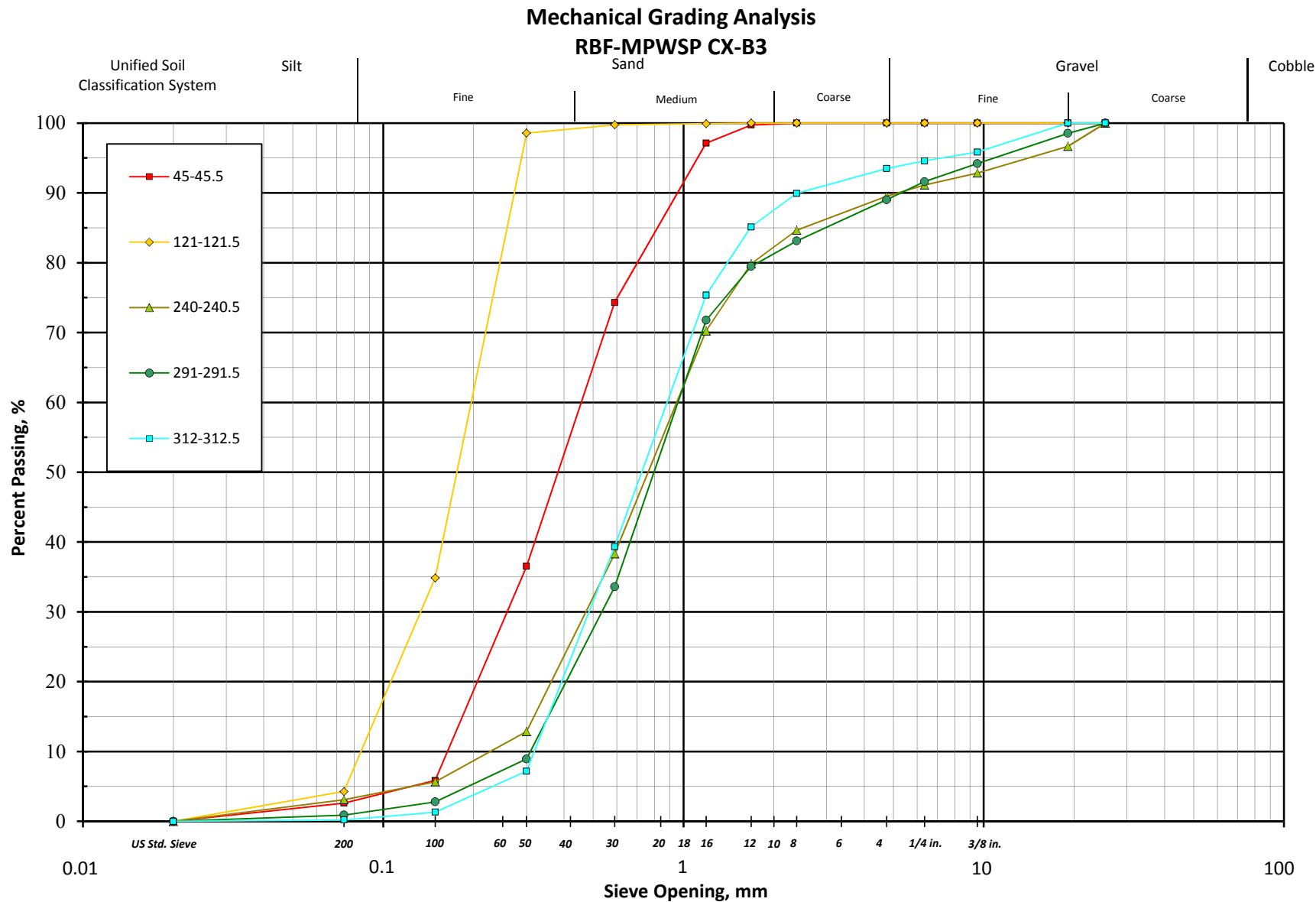
Appendix D

Mechanical Grading Analysis

RBF-MPWSP CX-B2

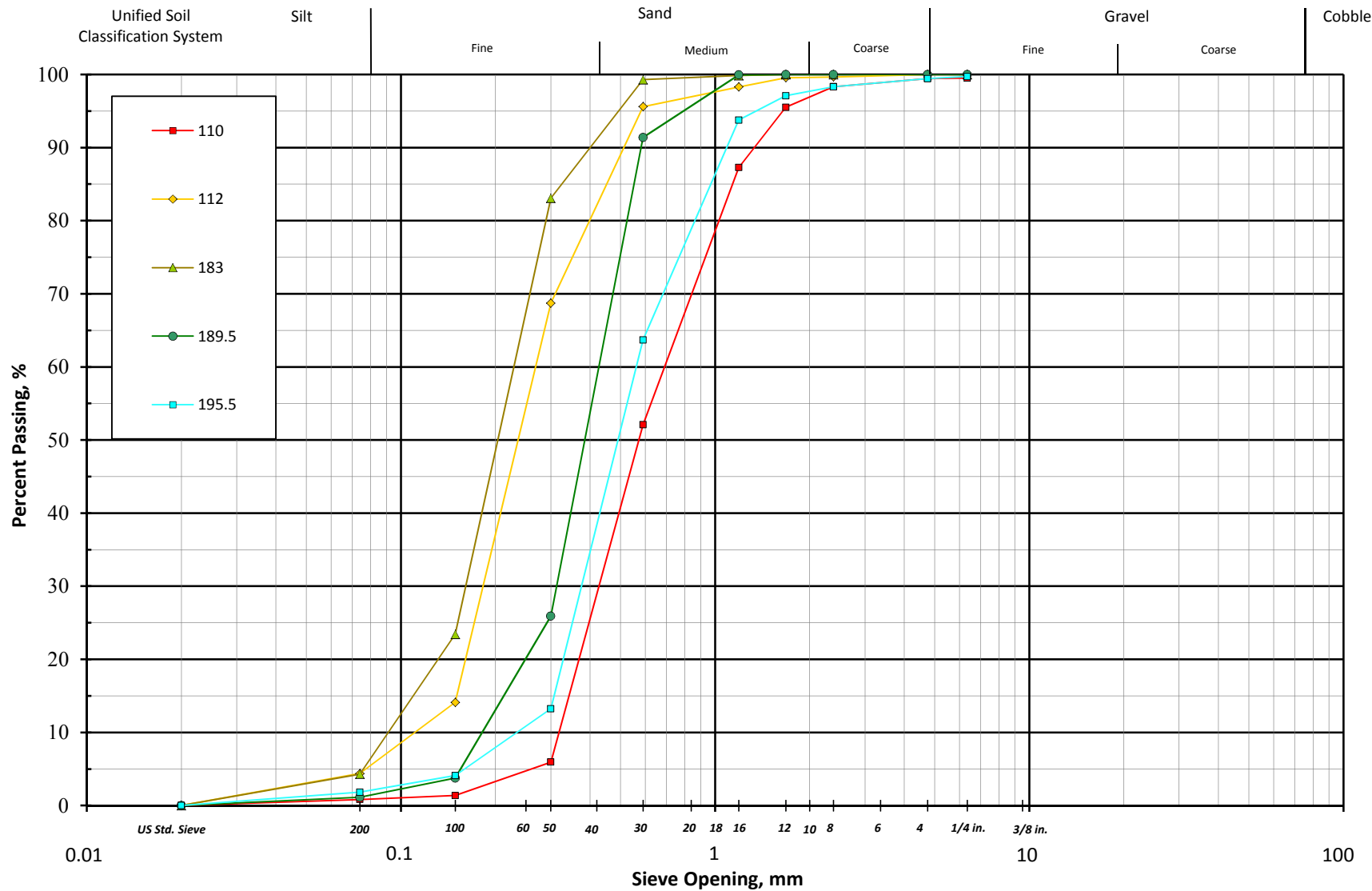


Appendix D



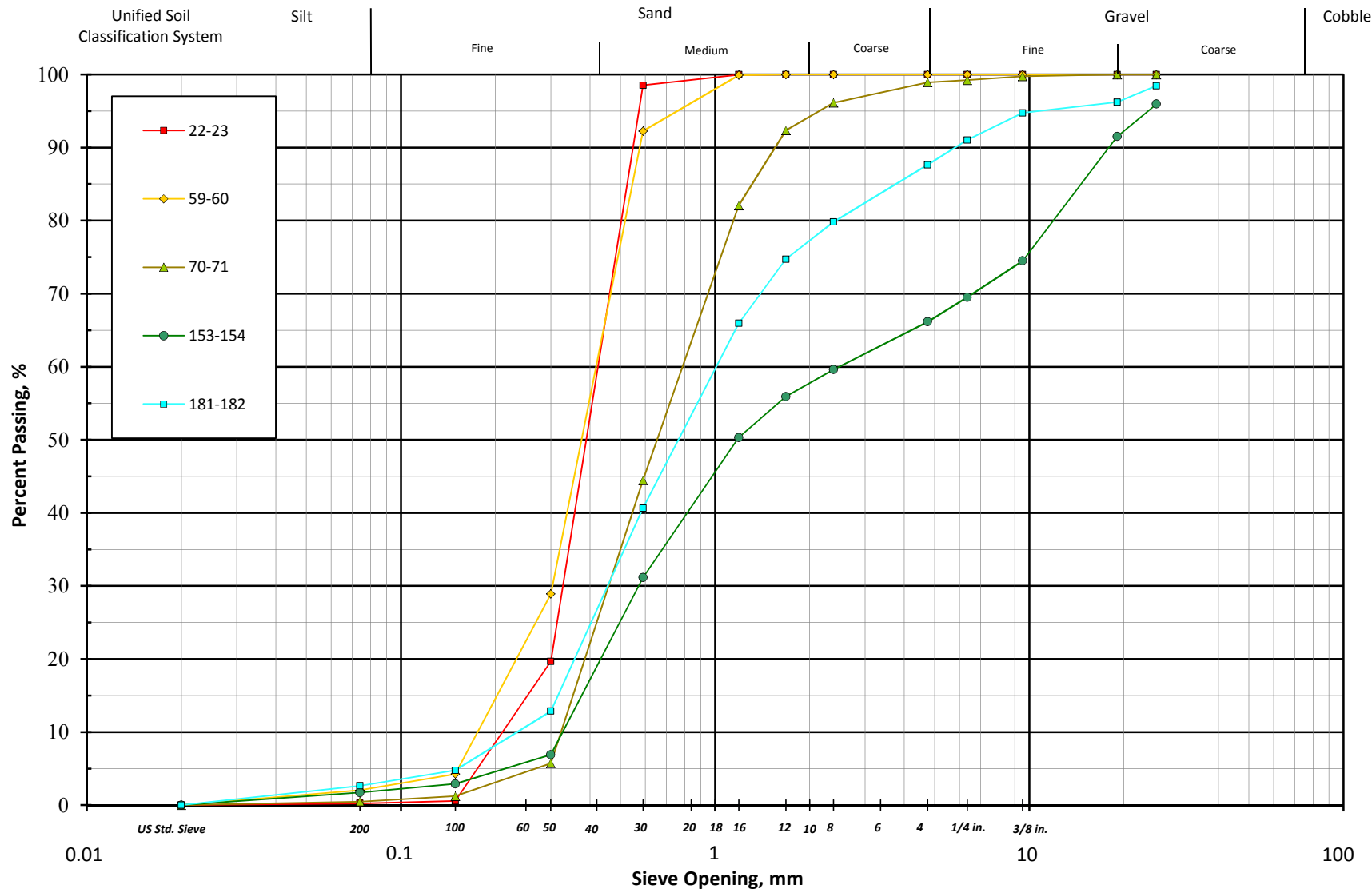
Appendix D

Mechanical Grading Analysis
RBF-MPWSP CX-B4

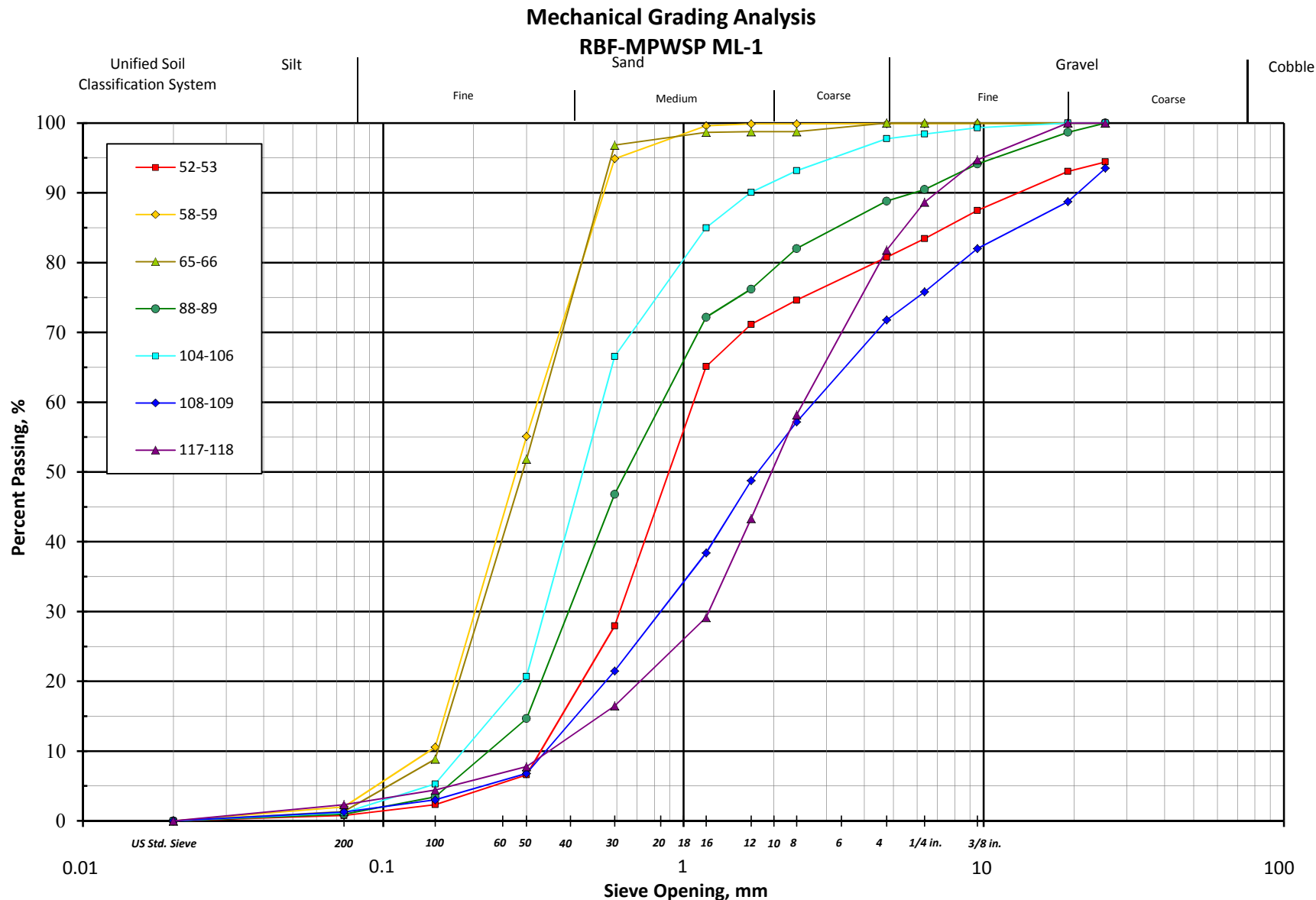


Appendix D

**Mechanical Grading Analysis
 RBF-MPWSP MDW-1**



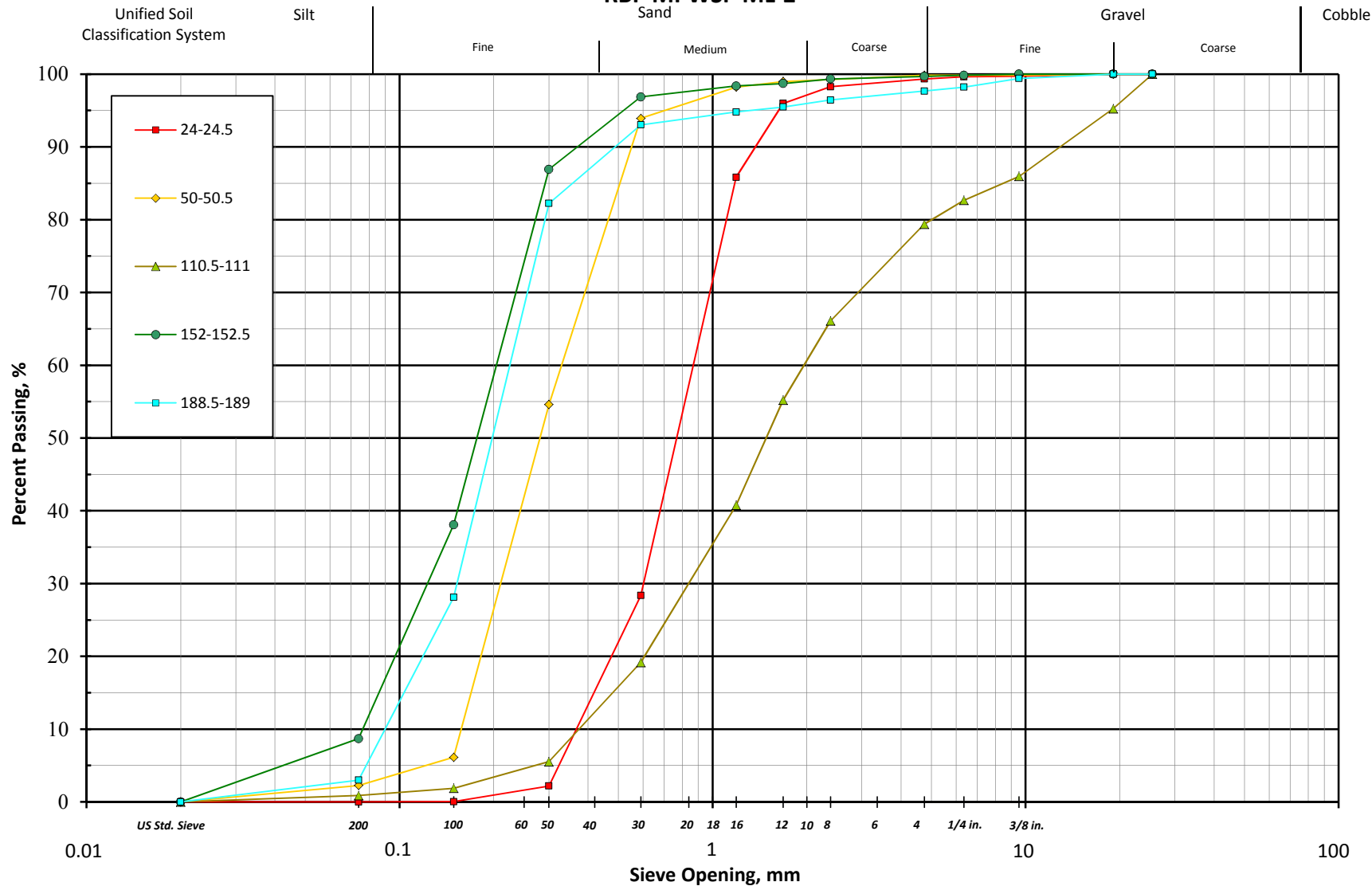
Appendix D



Appendix D

Mechanical Grading Analysis

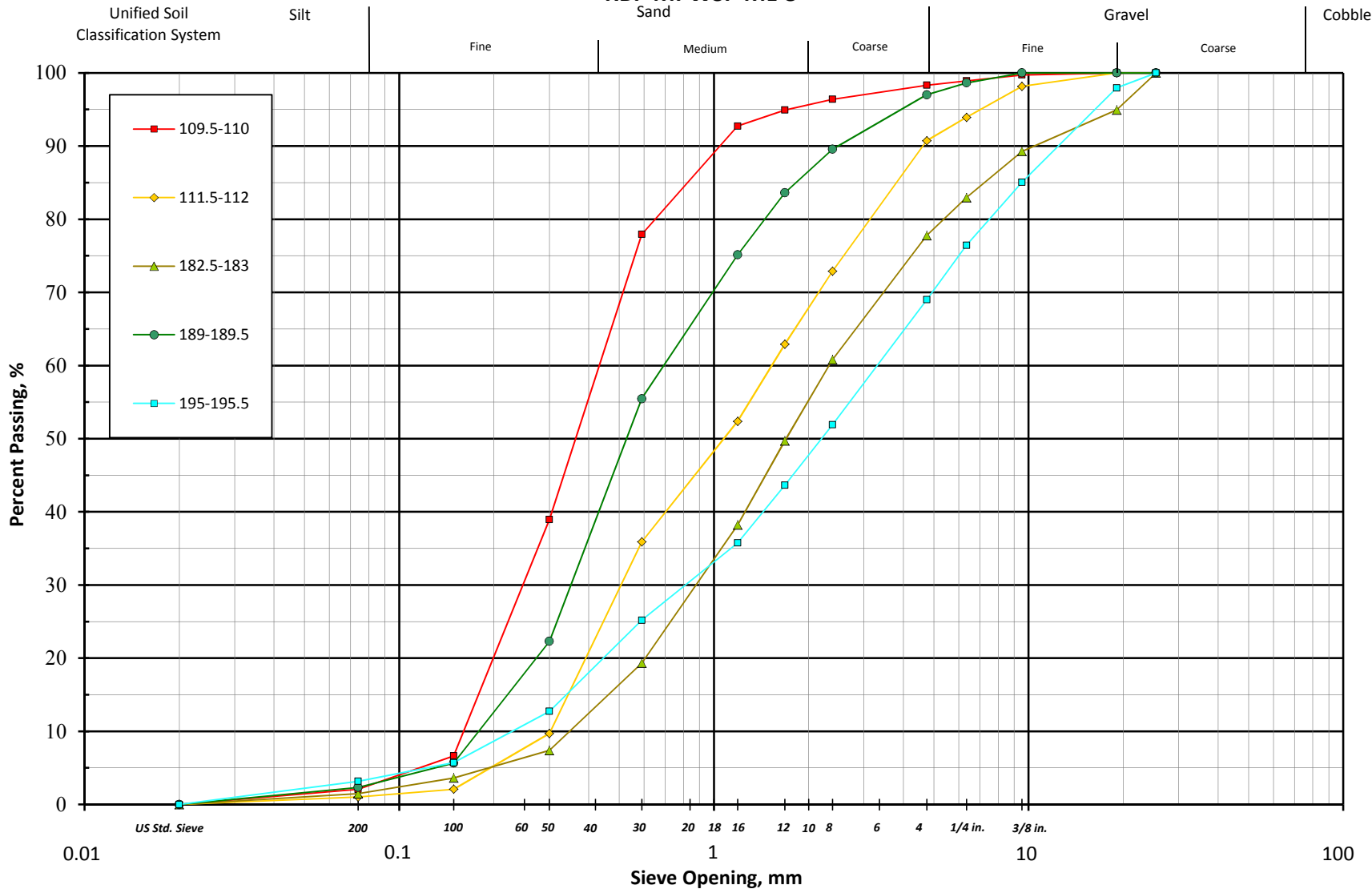
RBF-MPWSP ML-2



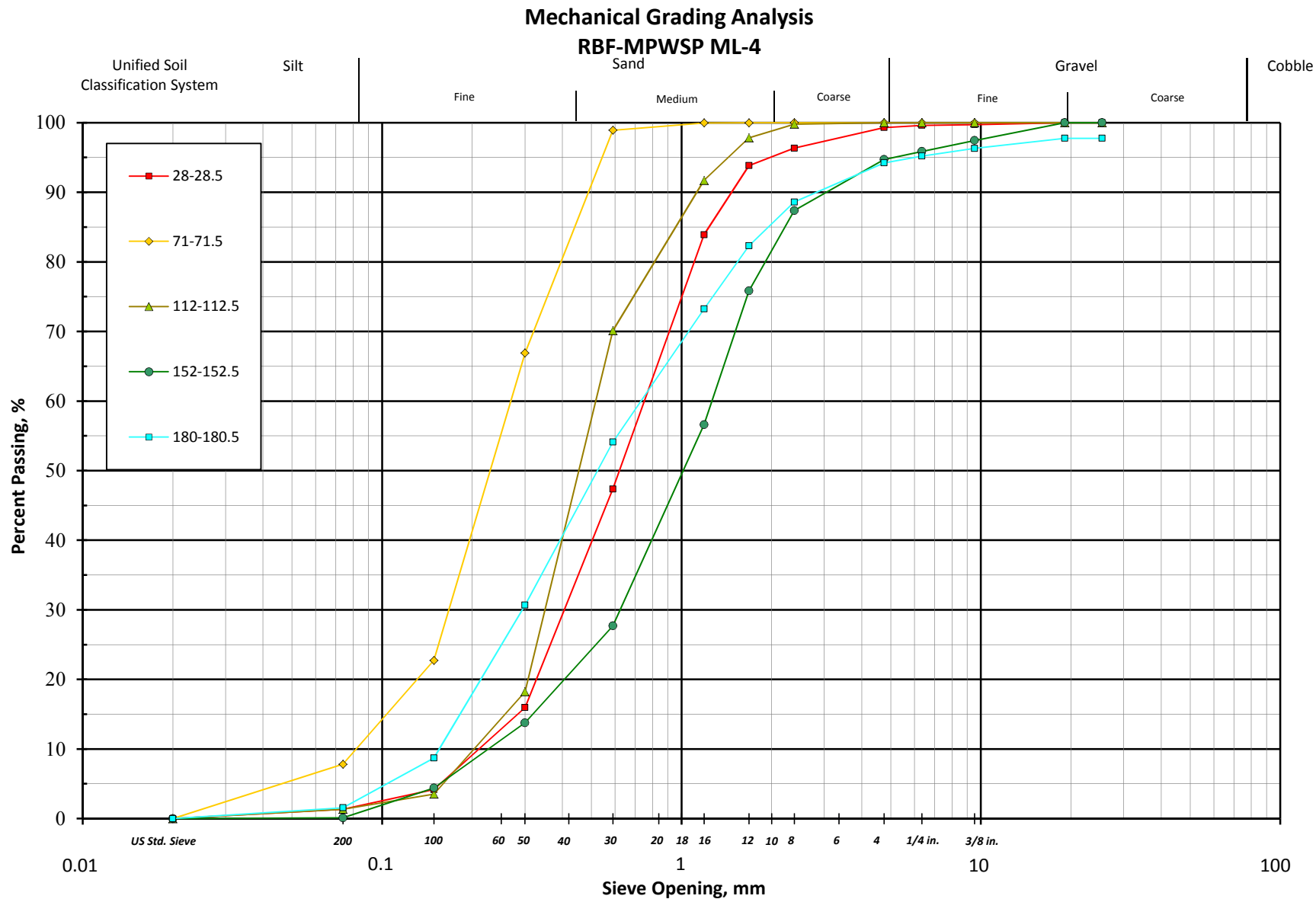
Appendix D

Mechanical Grading Analysis

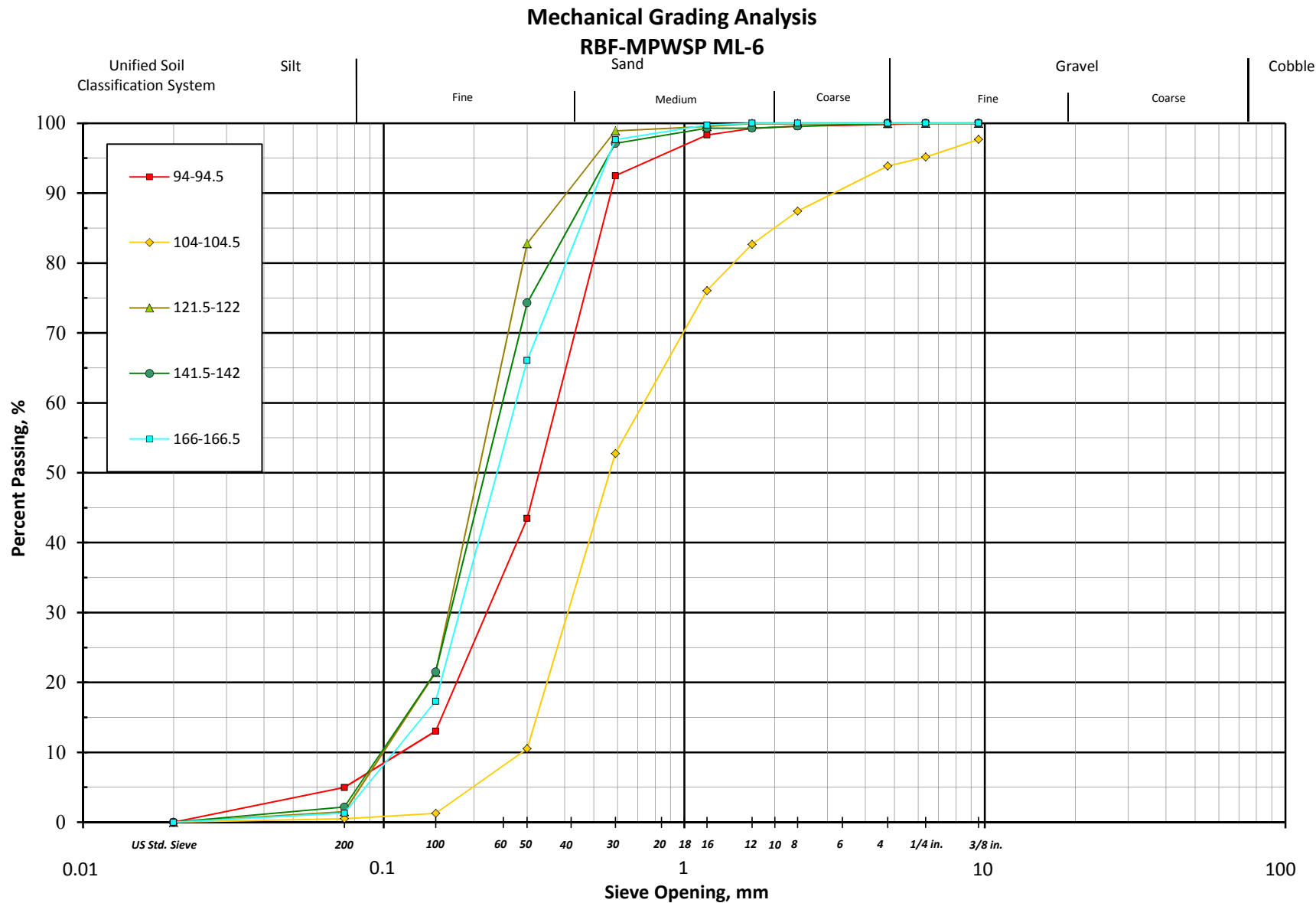
RBF-MPWSP ML-3



Appendix D



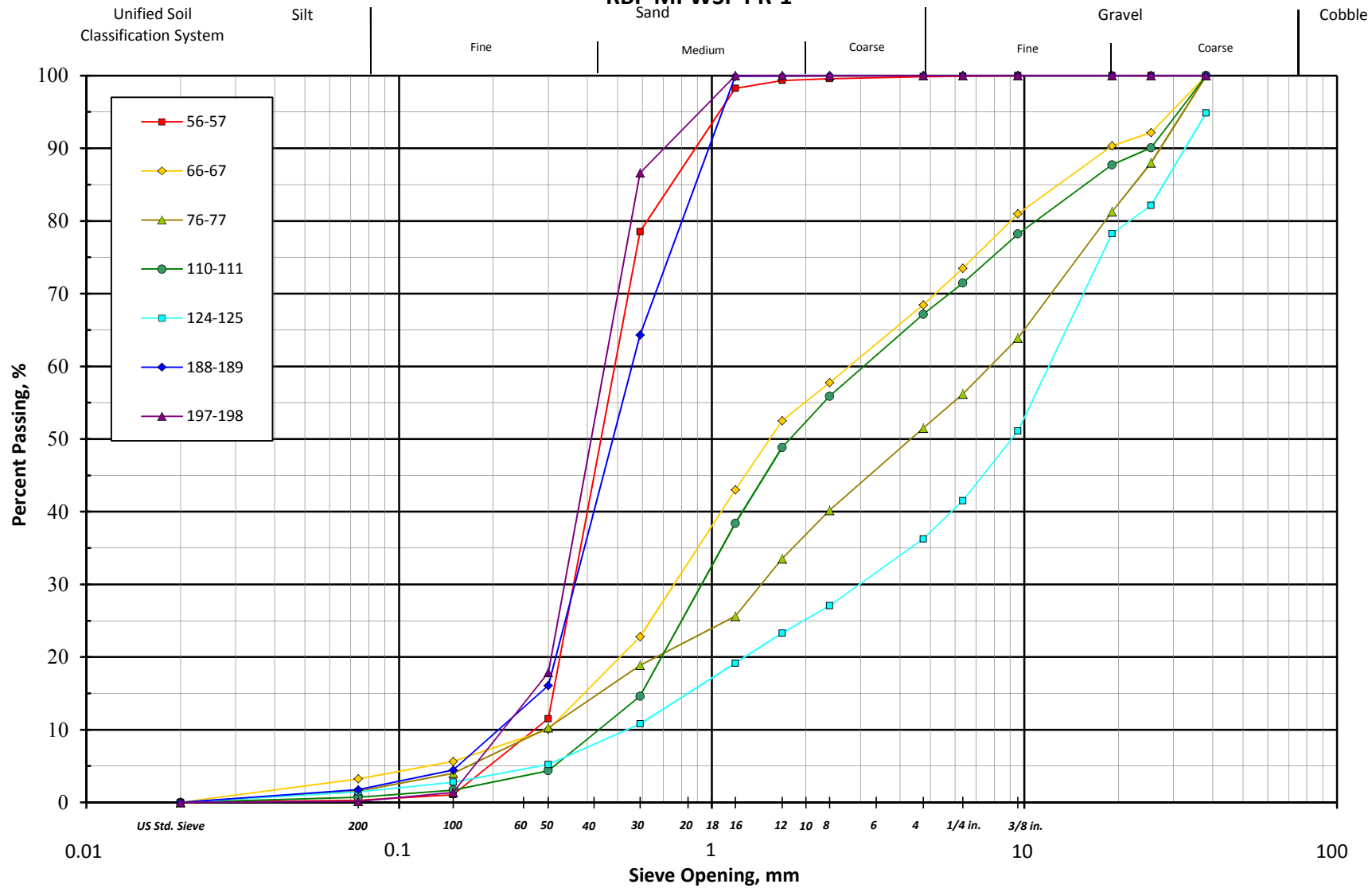
Appendix D



Appendix D

Mechanical Grading Analysis

RBF-MPWSP PR-1



Appendix D

APPENDIX E
Geophysical Borehole Logs

GEOSCIENCE

The logo features the word "GEOSCIENCE" in a blue, italicized, sans-serif font. Below the text is a blue graphic element consisting of a horizontal line that curves downwards at both ends, forming a shallow, inverted V-shape.

APPENDIX E:
GEOPHYSICAL BOREHOLE LOGS

CONTENTS

Description	Page
<i>Borehole CX-B1</i>	<i>E-1</i>
<i>Borehole CX-B2</i>	<i>E-6</i>
<i>Borehole CX-B3</i>	<i>E-11</i>
<i>Borehole CX-B4</i>	<i>E-17</i>
<i>Borehole MDW-1</i>	<i>E-22</i>
<i>Borehole ML-1</i>	<i>E-27</i>
<i>Borehole ML-2</i>	<i>E-31</i>
<i>Borehole ML-3</i>	<i>E-35</i>
<i>Borehole ML-4</i>	<i>E-39</i>
<i>Borehole ML-6</i>	<i>E-42</i>
<i>Borehole PR-1</i>	<i>E-46</i>

DUAL INDUCTION GAMMA-RAY

Job No. 17725	Company	CASCADE DRILLING, INC.		
	Well	CX-B1		
File No.	Field	MARINA		
	County	MONTEREY	State	CA

Location	Other Services:
OFF OF LAPIS RD. GPS: N 36o 42.797' W 121o 48.360'	TEMPERATURE FLUID RESISTIVITY

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L.	0'	above perm. datum
Drilling Measured From	G.L.		K.B. D.F. G.L.

Date	10-26-2013		
Run Number	ONE		
Depth Driller	305'		
Depth Logger	304'		
Bottom Logged Interval	304'		
Top Log Interval	0'		
Open Hole Size	9" (0'-100')	8" (100'-306')	
Type Fluid	N/A		
Density / Viscosity	N/A		
Fluid Level	N/A		
Bentonite Seal	N/A		
Time Well Ready	1330		
Time Logger on Bottom	1400		
Equipment Number	PS-3		
Location	LA		
Recorded By	SCHUMACHER		
Witnessed By	B. VILLALOBOS		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	9"	0'	100'				
TWO	8"	100'	306'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9"	N/A	0'	3.5'
Prot. String	4" PVC	N/A	0'	305'
Production String				
Liner				F-1

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pacific Surveys cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to Pacific Surveys' general terms and conditions set out in our current Price Schedule.

Comments

0.010" SLOT FROM 5'-305' BGS

Calibration Report

Database File 17725.db
 Dataset Pathname DIL
 Dataset Creation Sat Oct 26 14:46:45 2013

Dual Induction Calibration Report

Serial-Model:
Surface Cal Performed:

0001-ALT
Wed Aug 31 18:21:15 2011

Appendix E

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	1407.490	3493.640	cps	0.000	612.000	mmho/m	0.293	-412.905
Medium	1908.120	14487.900	cps	0.000	1960.000	mmho/m	0.156	-297.296

Gamma Ray Calibration Report

Serial Number: PS_1
 Tool Model: 01
 Performed: Wed Aug 31 18:22:13 2011

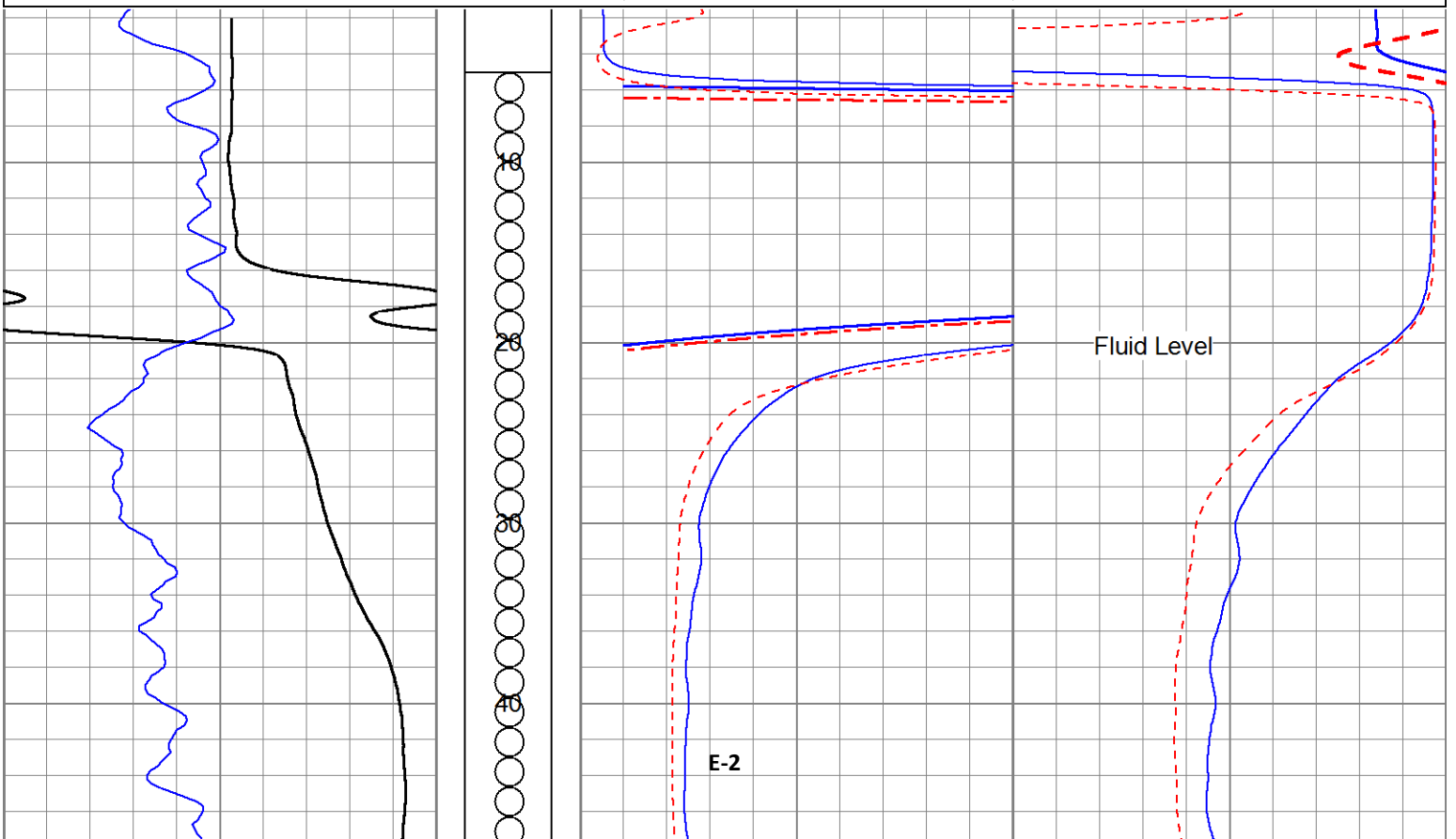
Calibrator Value: 162.0 GAPI

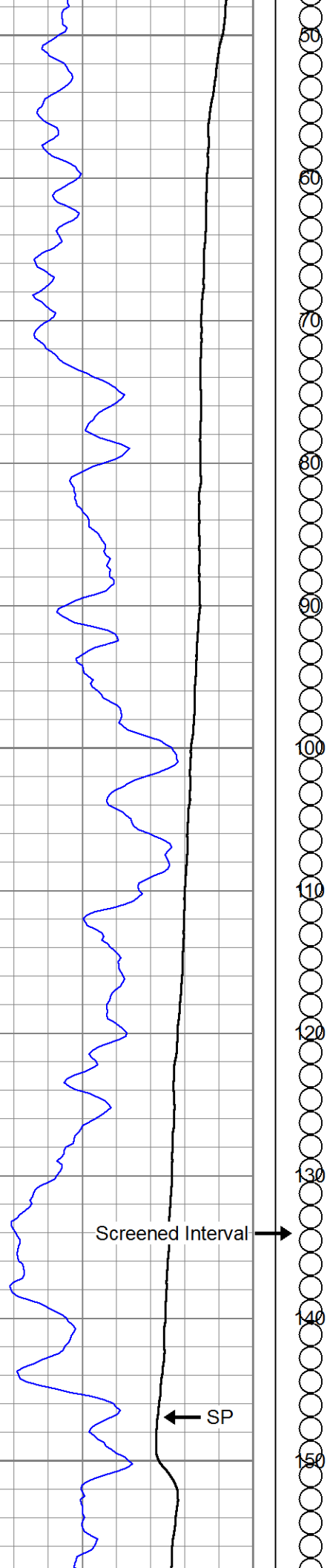
Background Reading: 46.1 cps
 Calibrator Reading: 180.8 cps

Sensitivity: 1.2020 GAPI/cps

Database File 17725.db
 Dataset Pathname DIL
 Presentation Format dil_ps
 Dataset Creation Sat Oct 26 14:46:45 2013
 Charted by Depth in Feet scaled 1:120

10	SP (mV)	160	0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
10	Gamma Ray (GAPI)	110	0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
			5	RILM backup (Ohm-m)	10	15000	CILM backup (mmho/m)	1500
			5	RILD backup (Ohm-m)	10	15000	CILD backup (mmho/m)	1500





Screened Interval

SP

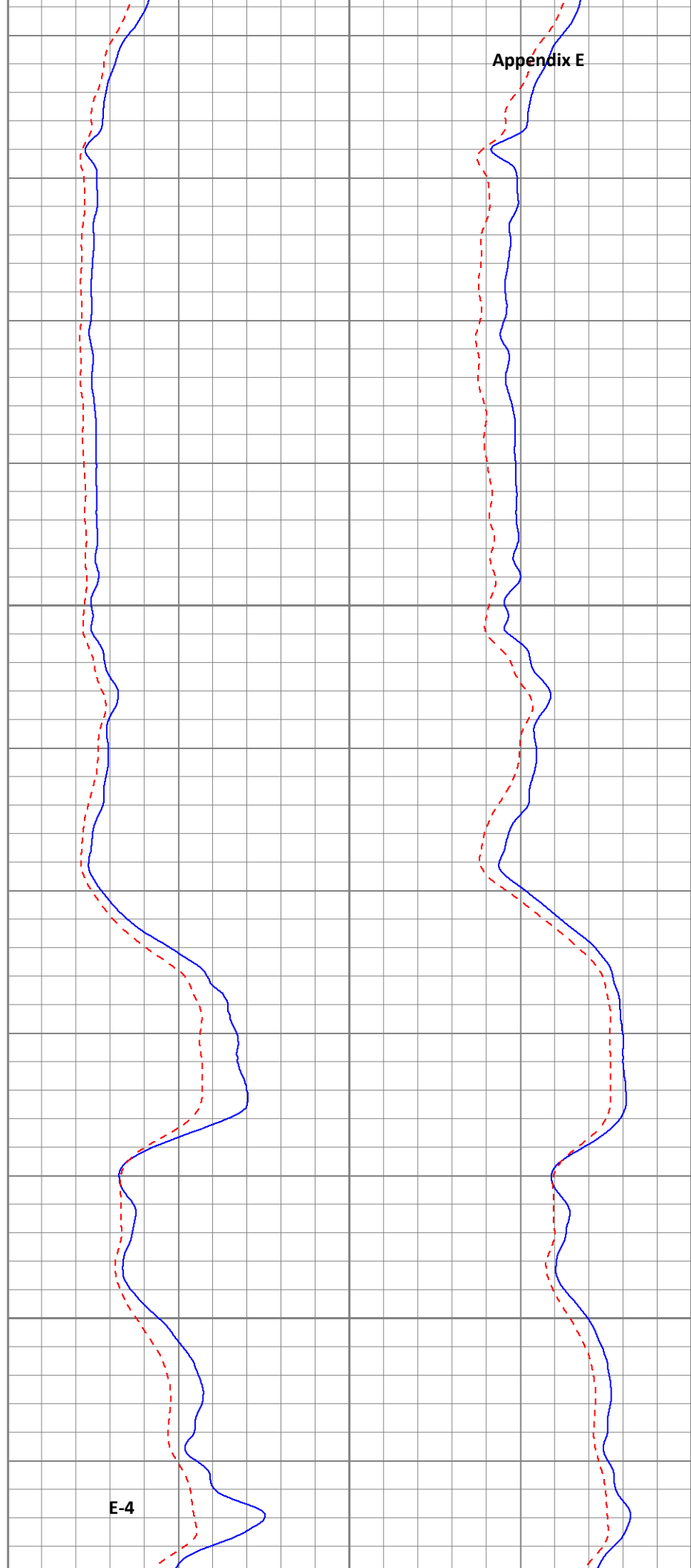
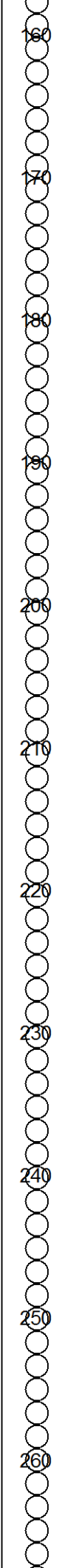
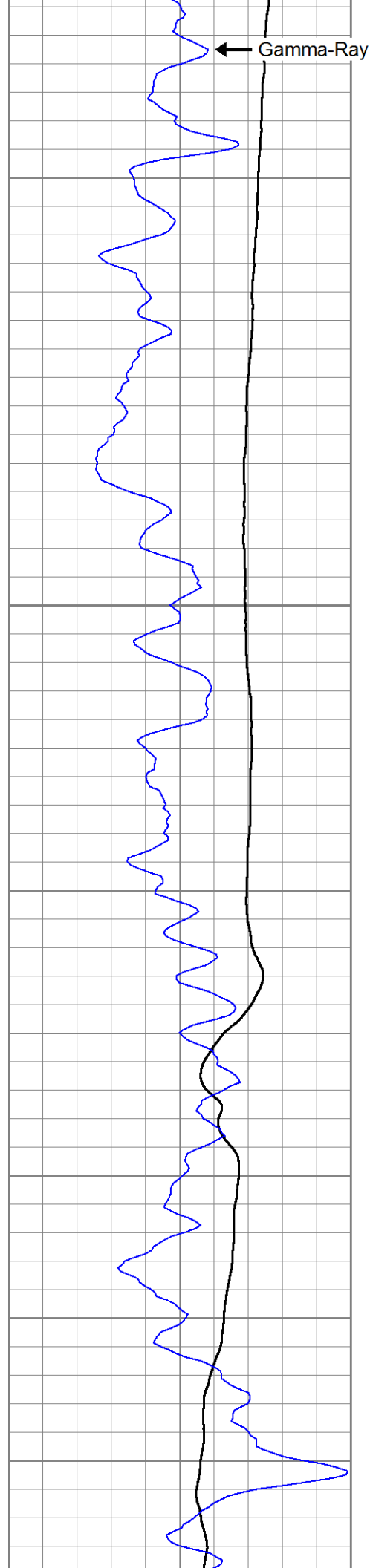
RILD
E-3

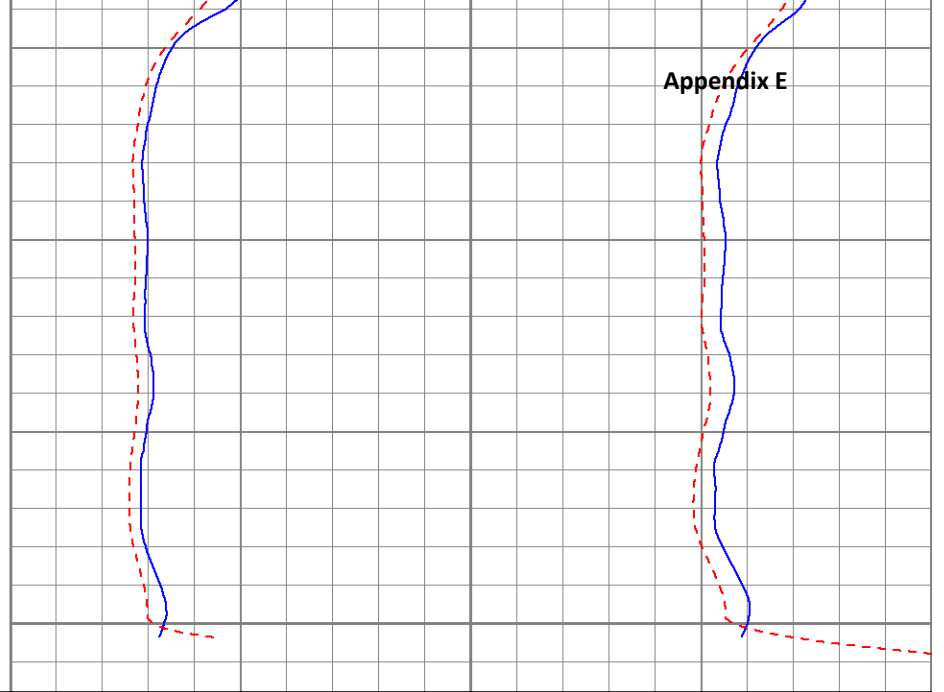
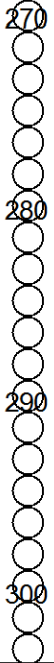
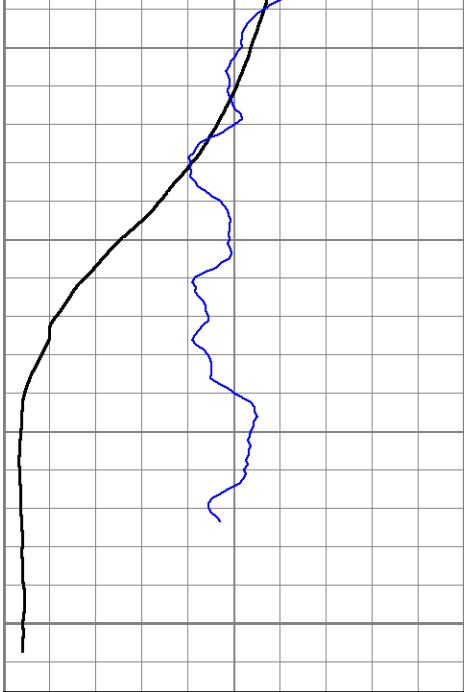
Appendix E

RILM

CILM

CILD





10	SP (mV)	160
10	Gamma Ray (GAPI)	110

0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
5	RILM backup (Ohm-m)	10	15000	CILM backup (mmho/m)	1500
5	RILD backup (Ohm-m)	10	15000	CILD backup (mmho/m)	1500

DUAL INDUCTION GAMMA RAY

Job No. 17805	Company	CASCADE DRILLING INC.		
	Well	CX-B2		
File No.	Field	MARINA		
	County	MONTEREY	State	CA

Location	Other Services:
OFF OF LAPIS RD. GPS: N36o42.768' W121o48.226'	TEMPERATURE FLUID RESISTIVITY

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L. 0'	above perm. datum	K.B. D.F. G.L.
Drilling Measured From	G.L.		

Date	11-07-2013		
Run Number	ONE		
Depth Driller	305.5'		
Depth Logger	301.5'		
Bottom Logged Interval	300'		
Top Log Interval	0'		
Open Hole Size	7" (0'-30')	6.5" (30'-307')	
Type Fluid	WATER		
Density / Viscosity	N/A		
Fluid Level	27'		
Bentonite Seal	N/A		
Time Well Ready	11:00 AM		
Time Logger on Bottom	11:30 AM		
Equipment Number	PS-5		
Location	L.A.		
Recorded By	ABREAU		
Witnessed By	N. REYNOLDS		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	7"	0'	30'				
TWO	6.5"	30'	307'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	7.25"	N/A	0'	30'
Prot. String				
Production String	4" PVC	SCH 40	0'	305.5'
Liner				F-6

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Comments

Calibration Report

Database File 17805.db
 Dataset Pathname DIL
 Dataset Creation Thu Nov 07 12:02:28 2013

Dual Induction Calibration Report

Serial-Model:
Surface Cal Performed:

0001-ALT
Tue Feb 19 09:35:46 2013

Appendix E

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	1421.120	3677.430	cps	0.000	612.000	mmho/m	0.271	-385.466
Medium	2115.060	14165.800	cps	0.000	1960.000	mmho/m	0.163	-344.005

Gamma Ray Calibration Report

Serial Number: PS_1
 Tool Model: 01
 Performed: Tue Feb 19 09:35:55 2013

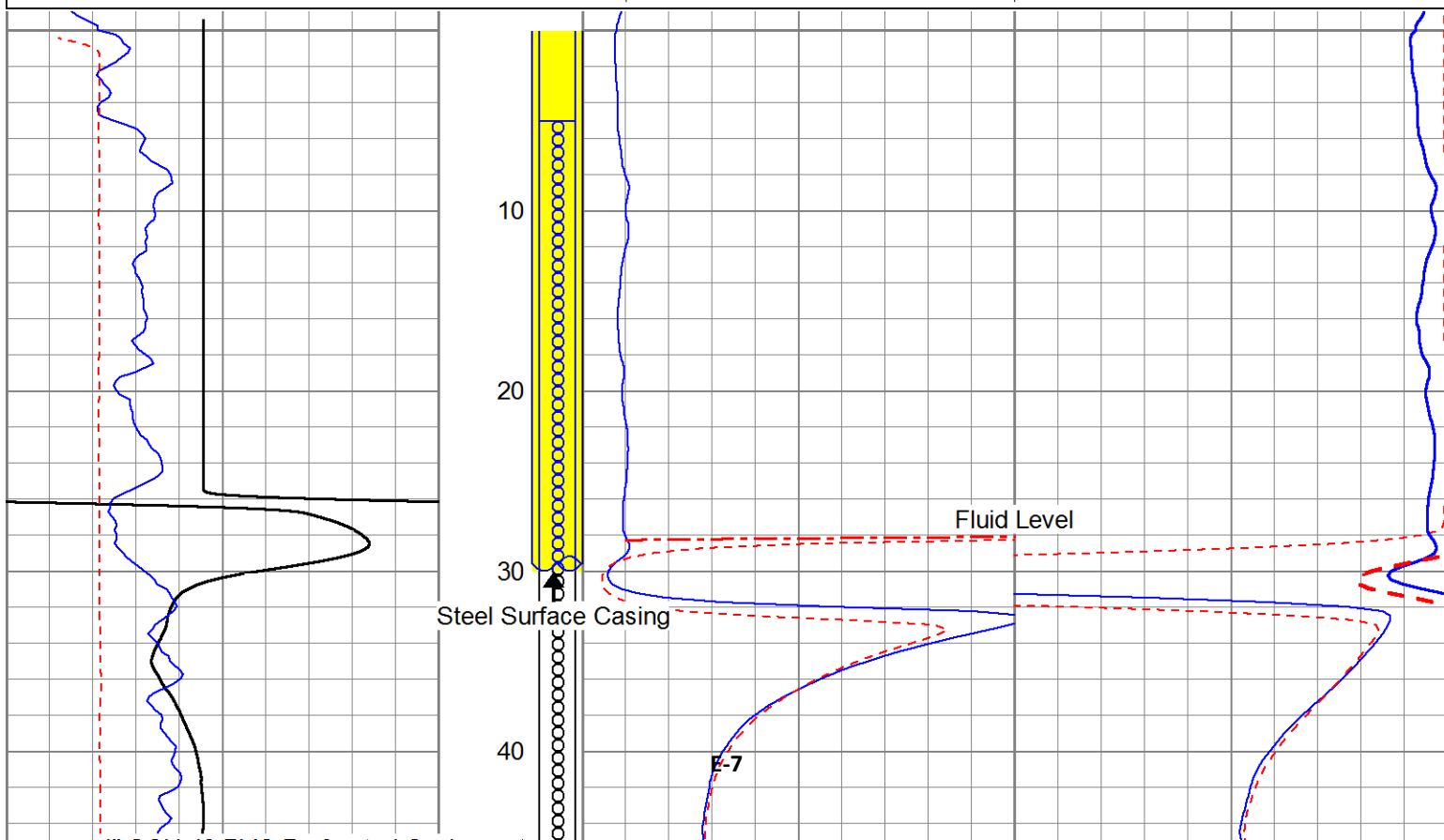
Calibrator Value: 162.0 GAPI

Background Reading: 46.1 cps
 Calibrator Reading: 180.8 cps

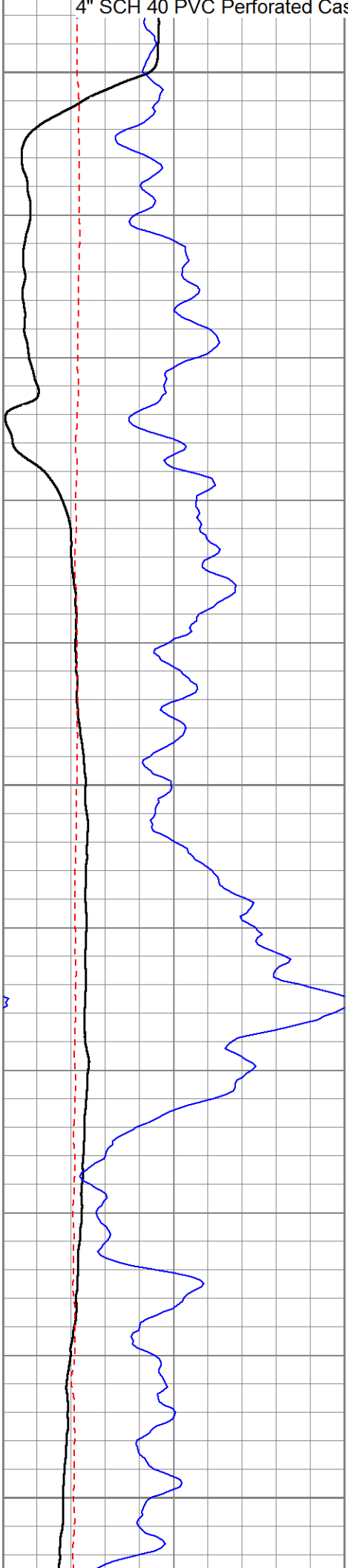
Sensitivity: 1.2020 GAPI/cps

Database File 17805.db
 Dataset Pathname DIL
 Presentation Format dil_ps
 Dataset Creation Thu Nov 07 12:02:28 2013
 Charted by Depth in Feet scaled 1:120

-150	SP (mV)	-50	0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
10	Gamma Ray (GAPI)	110	0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
0	Line Speed (ft/min)	-100	5	RILM backup (Ohm-m)	10	15000	CILM backup (mmho/m)	1500
			5	RILD backup (Ohm-m)	10	15000	CILD backup (mmho/m)	1500

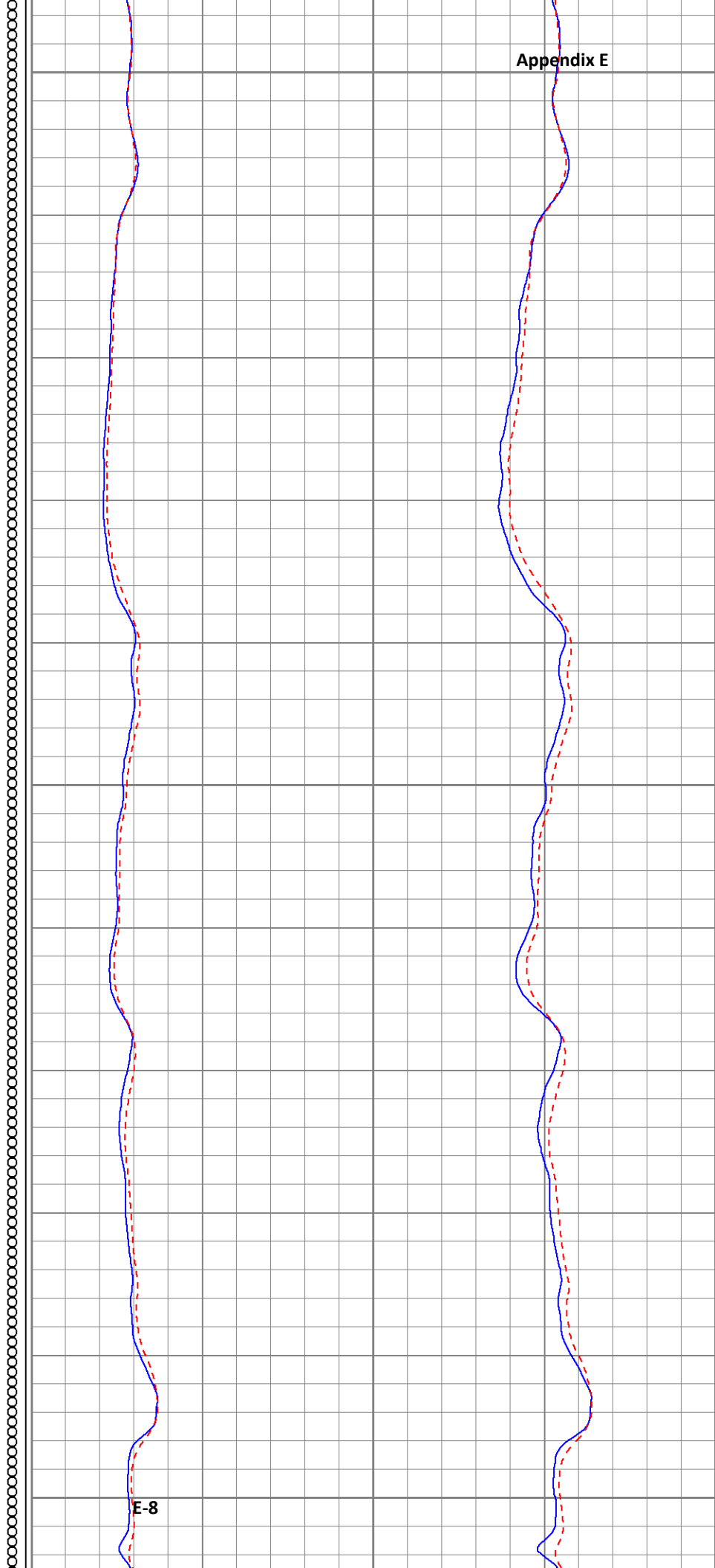


4" SCH 40 PVC Perforated Casing →

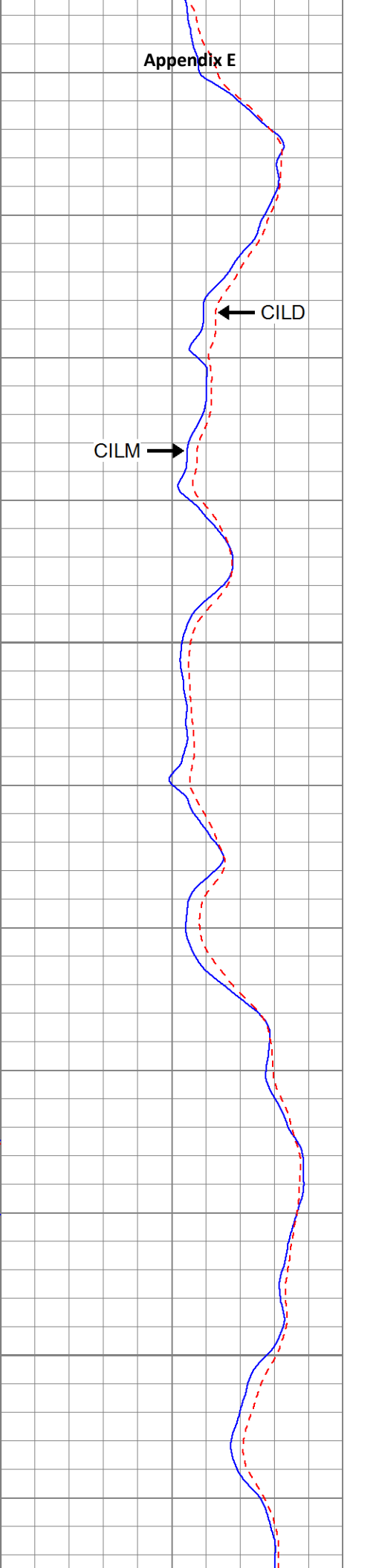
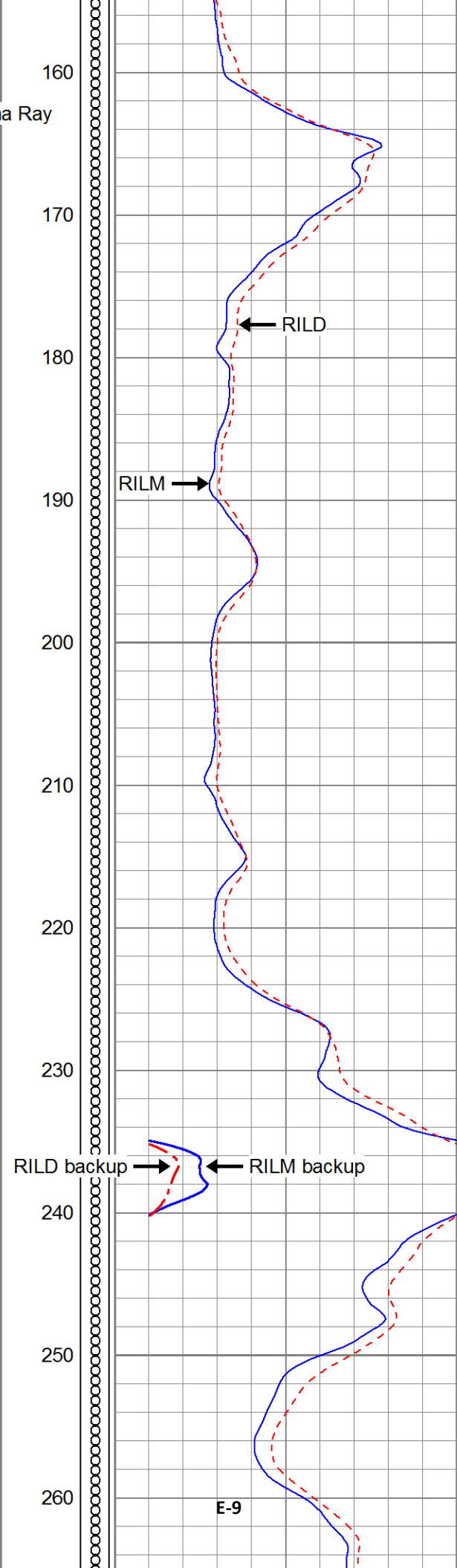
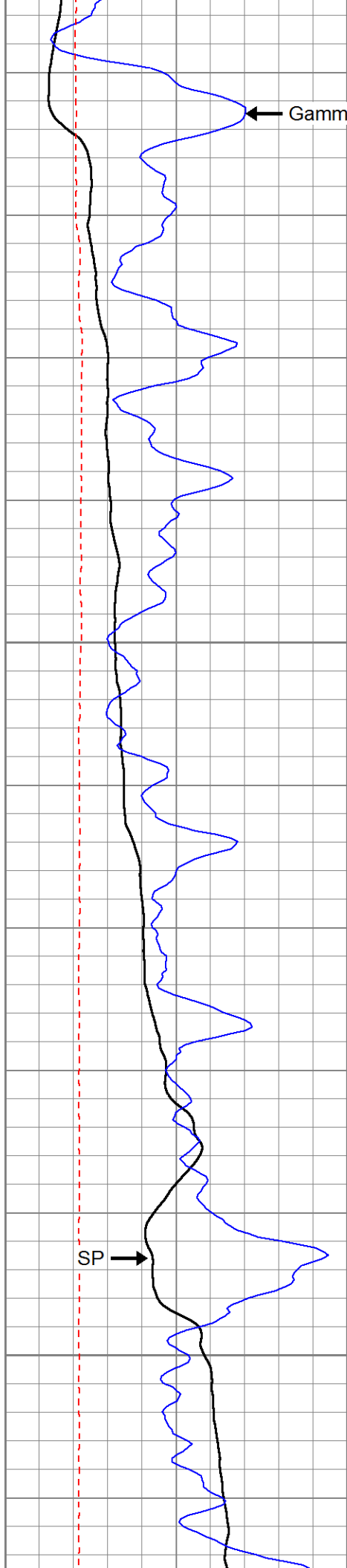


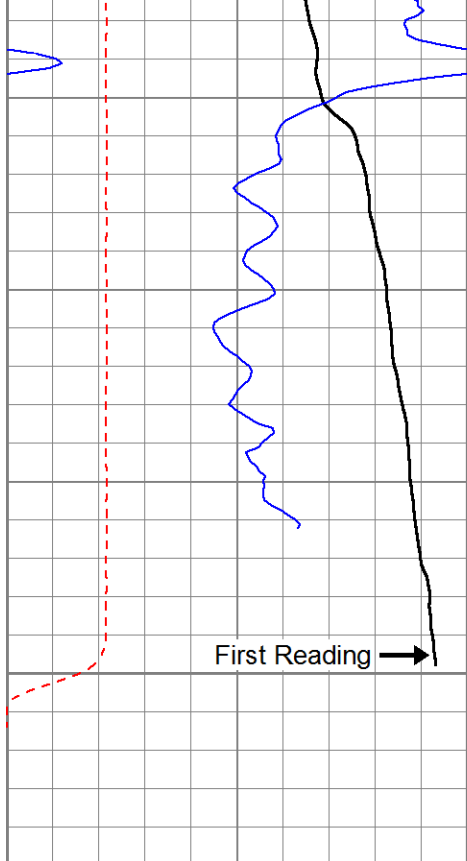
50
60
70
80
90
100
110
120
130
140
150

Appendix E

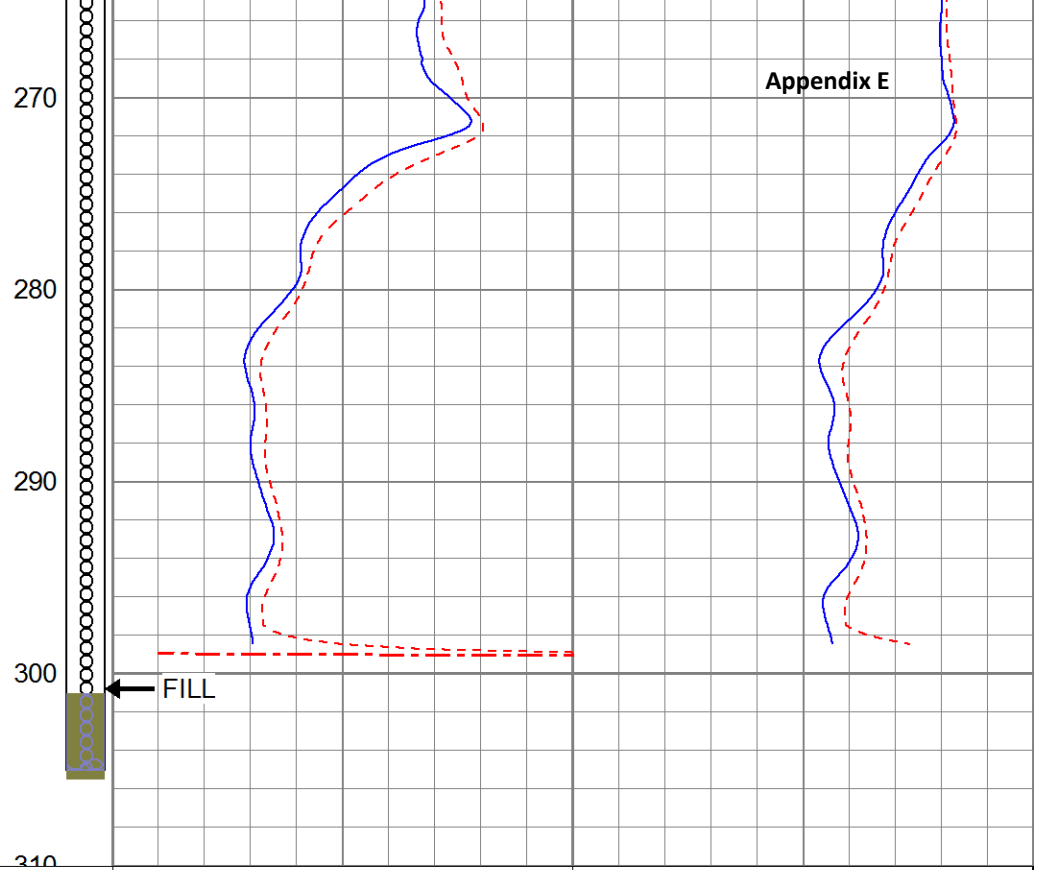


E-8





-150	SP (mV)	-50
10	Gamma Ray (GAPI)	110
0	Line Speed (ft/min)	-100



0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
5	RILM backup (Ohm-m)	10	15000	CILM backup (mmho/m)	1500
5	RILD backup (Ohm-m)	10	15000	CILD backup (mmho/m)	1500

**TEMPERATURE
DELTA TEMPERATURE
FLUID RESISTIVITY
DELTA FLUID RESISTIVITY**

Job No. 17821	Company	CASCADE DRILLING INC.		
	Well	CX-B3		
File No.	Field	MARINA		
	County	MONTEREY	State	CA

Location OFF OF LAPIS RD. GPS: N36o42.721' W121o47.985'	Other Services: DUAL INDUCTION GAMMA RAY
---	--

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L. 0'	above perm. datum	K.B. D.F. G.L.
Drilling Measured From	G.L.		

Date	11-12-2013		
Run Number	ONE		
Depth Driller	348.5'		
Depth Logger	346.5'		
Bottom Logged Interval	346'		
Top Log Interval	0'		
Open Hole Size	7" (0-30')	6.5" (30'-348.5')	
Type Fluid	WATER		
Density / Viscosity	N/A		
Fluid Level	26'		
Bentonite Seal	N/A		
Time Well Ready	10:00 AM		
Time Logger on Bottom	10:10 AM		
Equipment Number	PS-5		
Location	L.A.		
Recorded By	ABREAU		
Witnessed By	N. REYNOLDS		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	7"	0'	30'				
TWO	6.5"	30'	348.5'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	7.25"	N/A	0'	30'
Prot. String				
Production String	4" PVC	SCH 40	0'	348.5'
Liner				E-11

<<< Fold Here >>>

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Comments

Calibration Report

Database File 17821.db
 Dataset Pathname tmp
 Dataset Creation Tue Nov 12 10:04:04 2013

Temperature Calibration Report

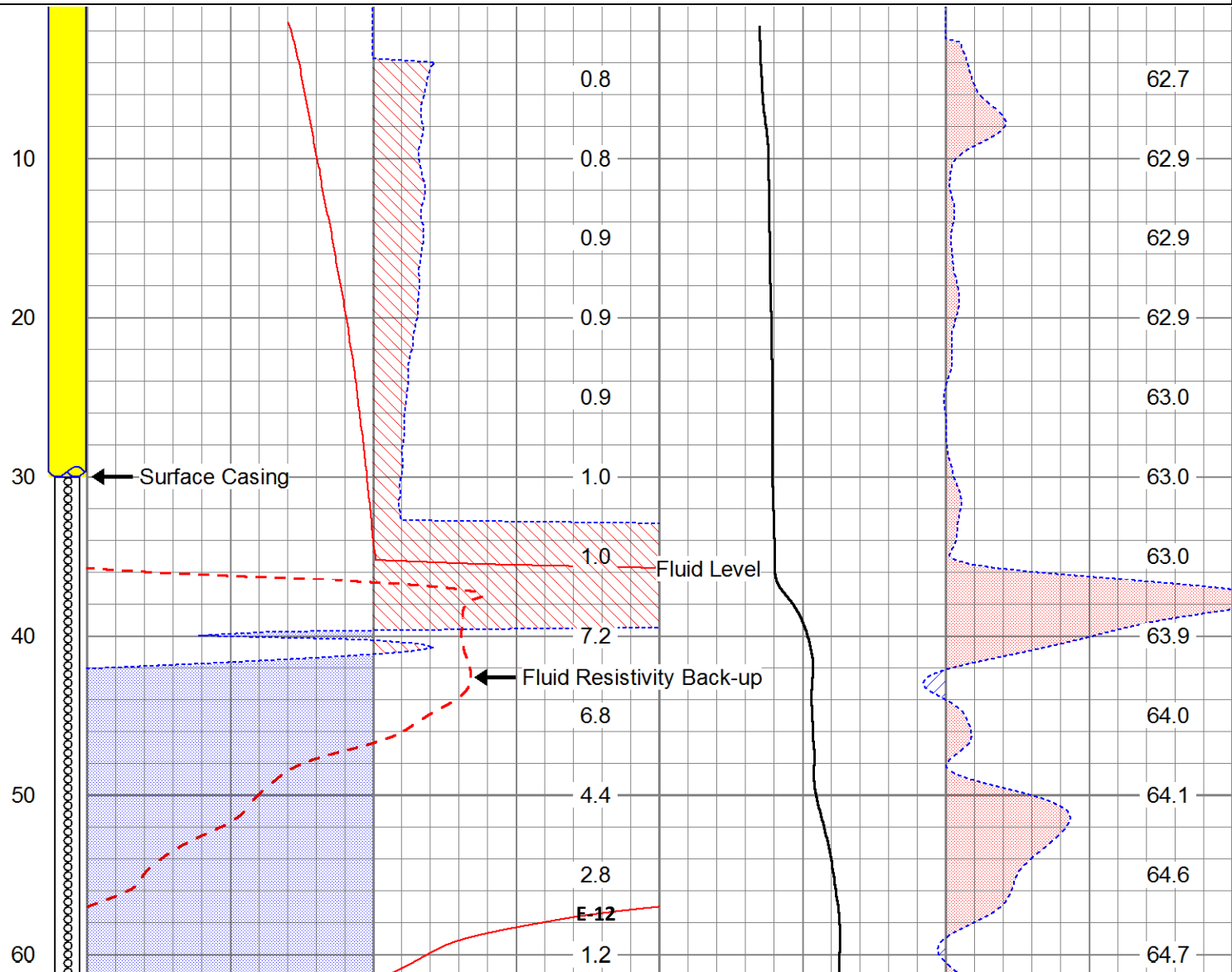
Serial Number: 5269A
 Tool Model: MLS
 Performed: Fri Nov 30 10:30:16 2012

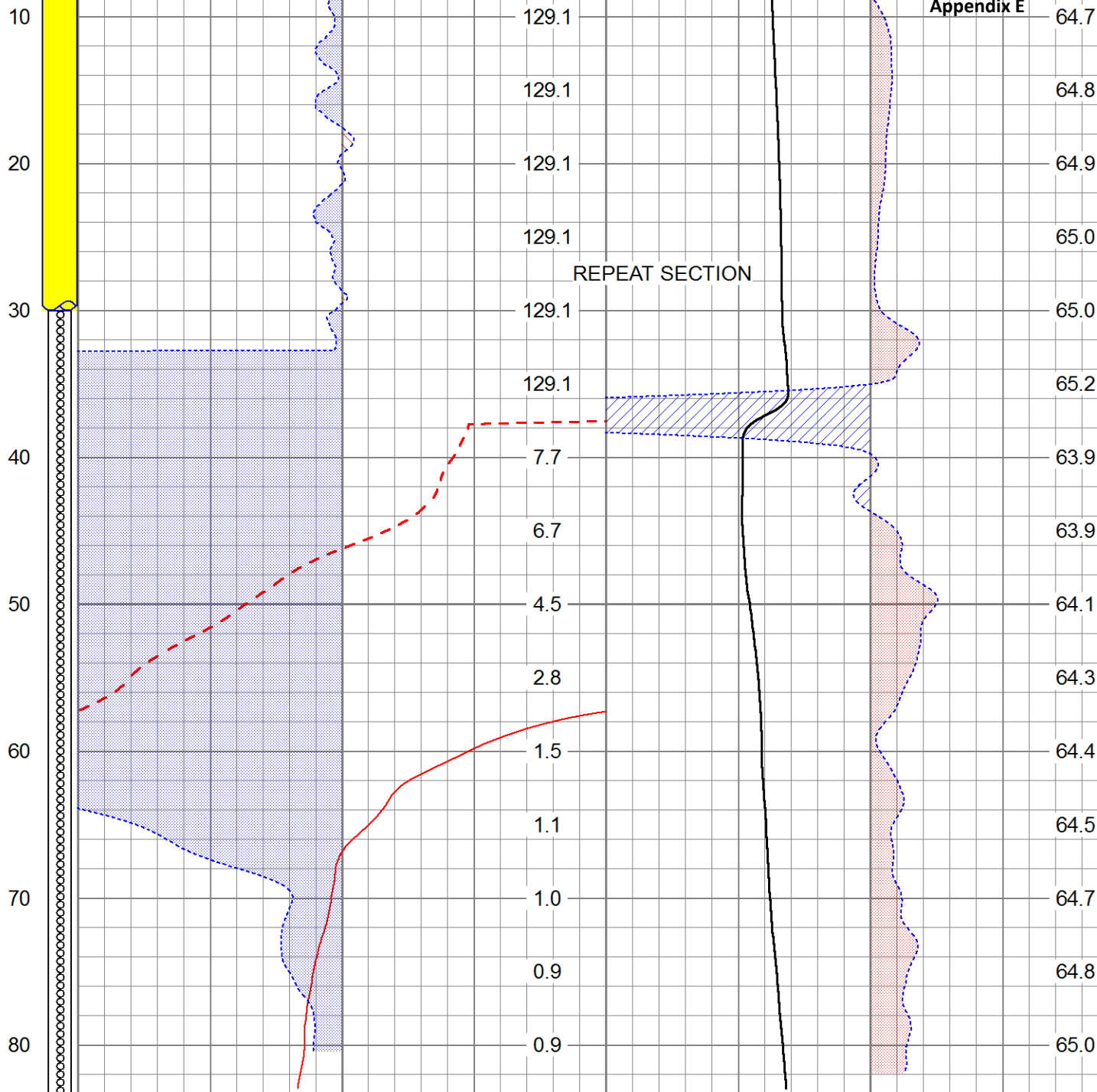
Appendix E

	Reference	Reading
Low Reference:	46.04 degF	1527.00cps
High Reference:	146.30 degF	4253.00cps
Gain:	0.04	
Offset:	-9.42	
Delta Spacing	2	

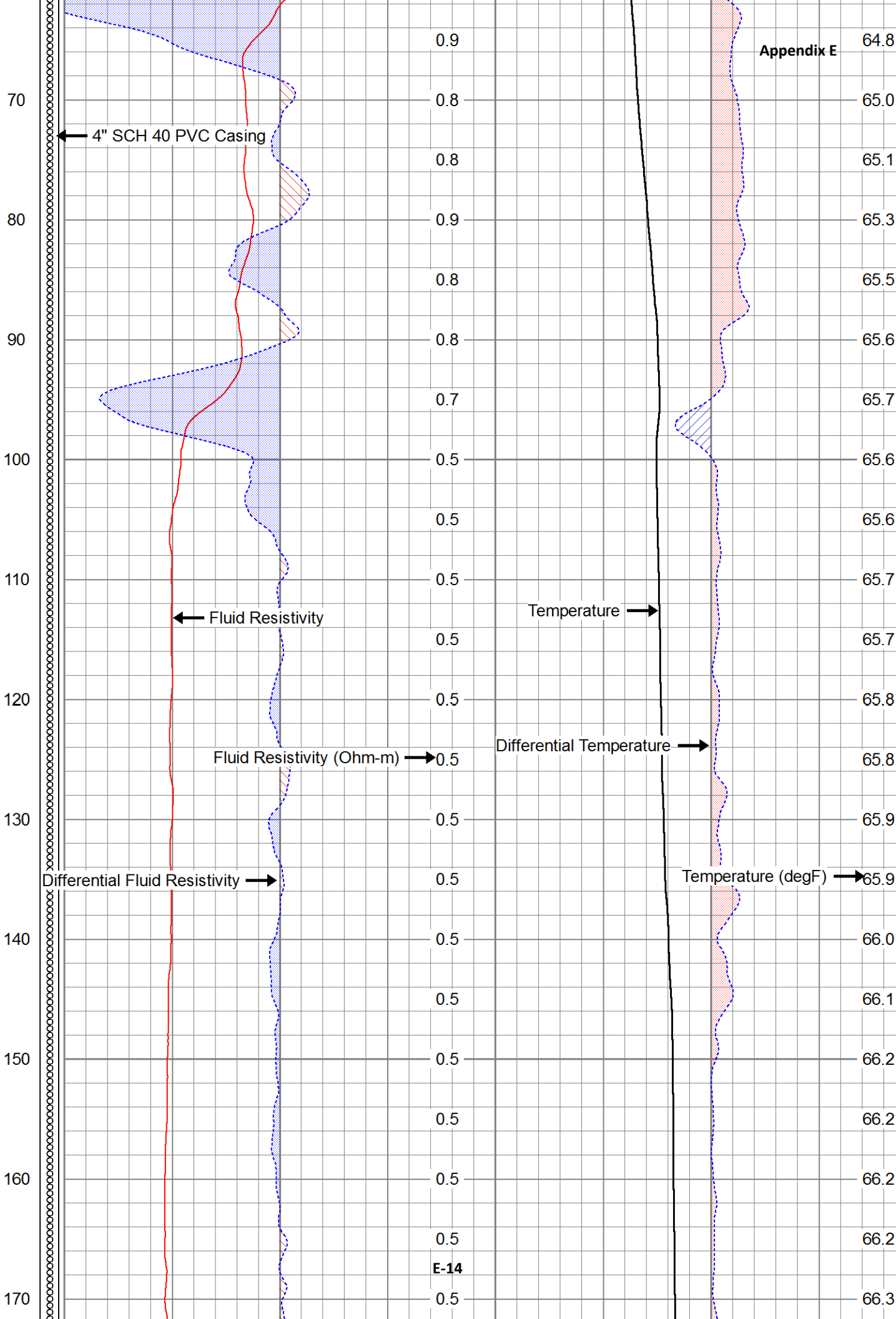
Database File 17821.db
 Dataset Pathname tmp
 Presentation Format frttemp2
 Dataset Creation Tue Nov 12 10:04:04 2013
 Charted by Depth in Feet scaled 1:120

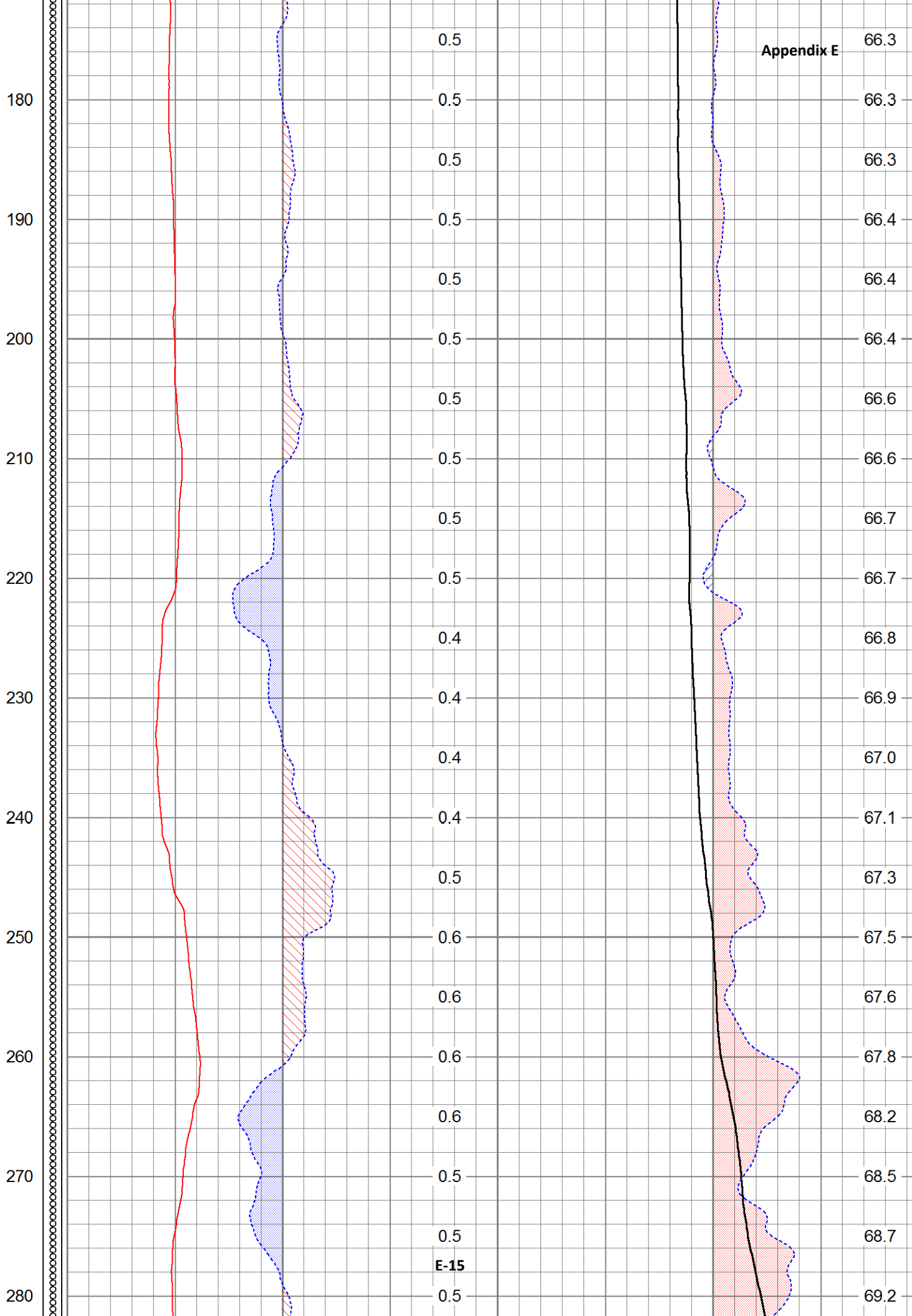
0	Fluid Resistivity (Ohm-m)	2	60	Temperature (degF)	75
-0.06	Differential Fluid Resistivity (Ohm-m)	0.06	-0.25	Differential Temperature (degF)	0.25
2	Fluid Resistivity (Back-up) (Ohm-m)	10			
				TEMP	
				(degF)	

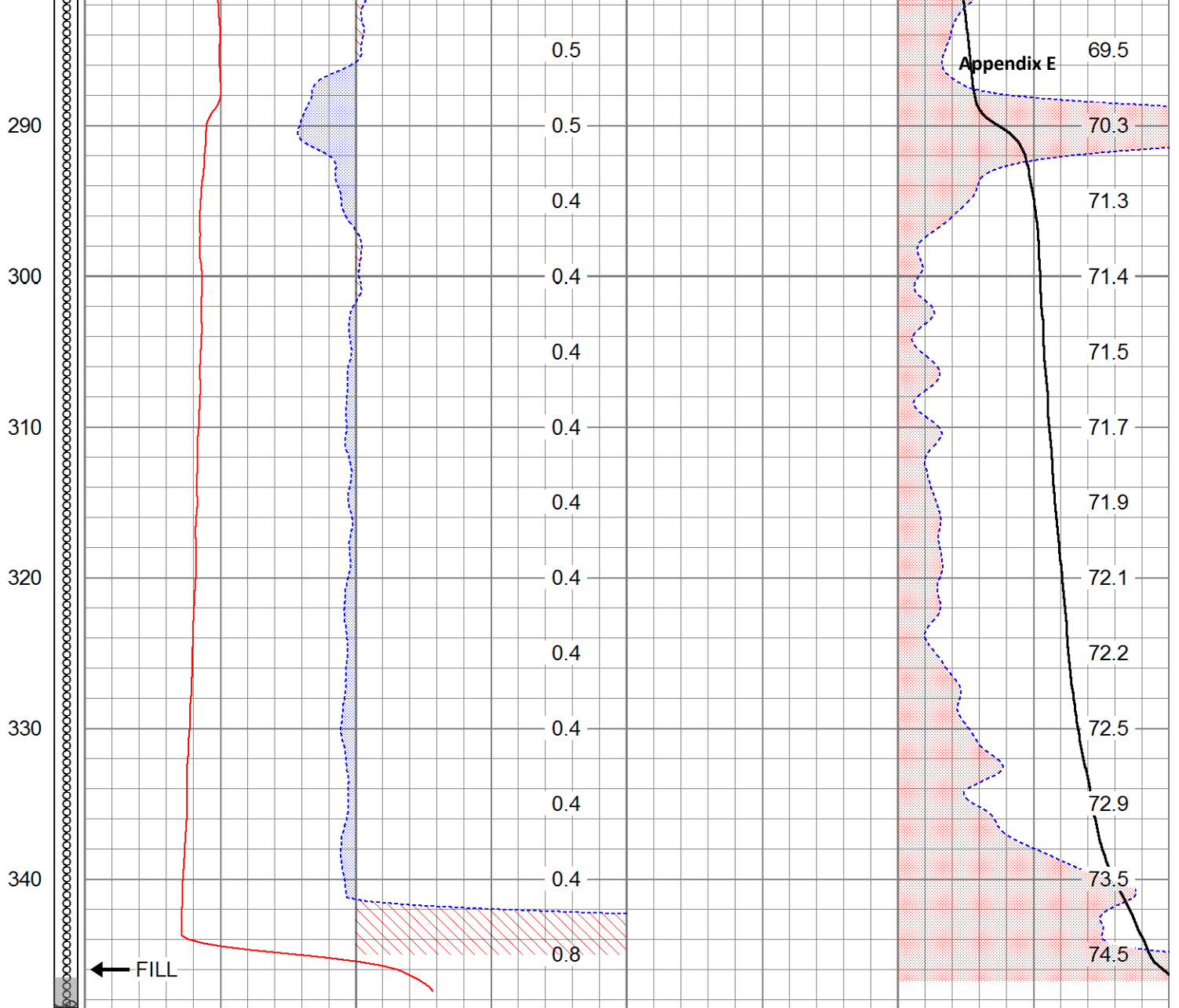




0	Fluid Resistivity (Ohm-m)	2	60	Temperature (degF)	75
-0.06	Differential Fluid Resistivity (Ohm-m)	0.06	-0.25	Differential Temperature (degF)	0.25
2	Fluid Resistivity (Back-up) (Ohm-m)	10			
	FRES (Ohm-m)			TEMP (degF)	







0	Fluid Resistivity (Ohm-m)	2	60	Temperature (degF)	75
-0.06	Differential Fluid Resistivity (Ohm-m)	0.06	-0.25	Differential Temperature (degF)	0.25
2	Fluid Resistivity (Back-up) (Ohm-m)	10		TEMP	(degF)
	FRES				
	(Ohm-m)				

Database File 17821.db
 Dataset Pathname tmp_rpt
 Presentation Format frttemp2
 Dataset Creation Tue Nov 12 10:27:23 2013
 Charted by Depth in Feet scaled 1:120

0	Fluid Resistivity (Ohm-m)	2	60	Temperature (degF)	75
-0.06	Differential Fluid Resistivity (Ohm-m)	0.06	-0.25	Differential Temperature (degF)	0.25
2	Fluid Resistivity (Back-up) (Ohm-m)	10		TEMP	(degF)
	FRES				
	(Ohm-m)				

E-16

129.1

64.8

DUAL INDUCTION GAMMA RAY

Job No. 18145	Company	CASCADE DRILLING INC.		
File No.	Well	CX-B4		
	Field	MARINA		
	County	MONTEREY	State	CA

Location LAPIS RD GPS: N36o 42.714' W121o 47.910'	Other Services: TEMPERATURE FLUID RESISTIVITY
---	---

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L.	0'	above perm. datum
Drilling Measured From	G.L.		K.B. D.F. G.L.

Date	3-27-2014
Run Number	ONE
Depth Driller	348.5'
Depth Logger	345'
Bottom Logged Interval	345'
Top Log Interval	0'
Open Hole Size	8" (26-350')
Type Fluid	WATER
Density / Viscosity	N/A
Fluid Level	35'
Bentonite Seal	N/A
Time Well Ready	13:00
Time Logger on Bottom	13:30
Equipment Number	PS-7
Location	LA
Recorded By	WATKINS
Witnessed By	N. REYNOLDS

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	8"	26'	350'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	10"	N/A	0'	25'
Prot. String				
Production String	4" PVC	N/A	0'	348.5'
Liner				E-17

<<< Fold Here >>>

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Comments

Calibration Report

Database File 18145.db
 Dataset Pathname dil/dil.1
 Dataset Creation Thu Mar 27 14:50:26 2014

Dual Induction Calibration Report

Serial-Model:
Surface Cal Performed:

0001-ALT

Appendix E

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	1411.390	3440.570	cps	0.000	612.000	mmho/m	0.302	-425.677
Medium	2379.120	14715.100	cps	0.000	1960.000	mmho/m	0.159	-378.004

Gamma Ray Calibration Report

Serial Number: PS_1
 Tool Model: 01
 Performed: Wed Sep 19 16:56:13 2012

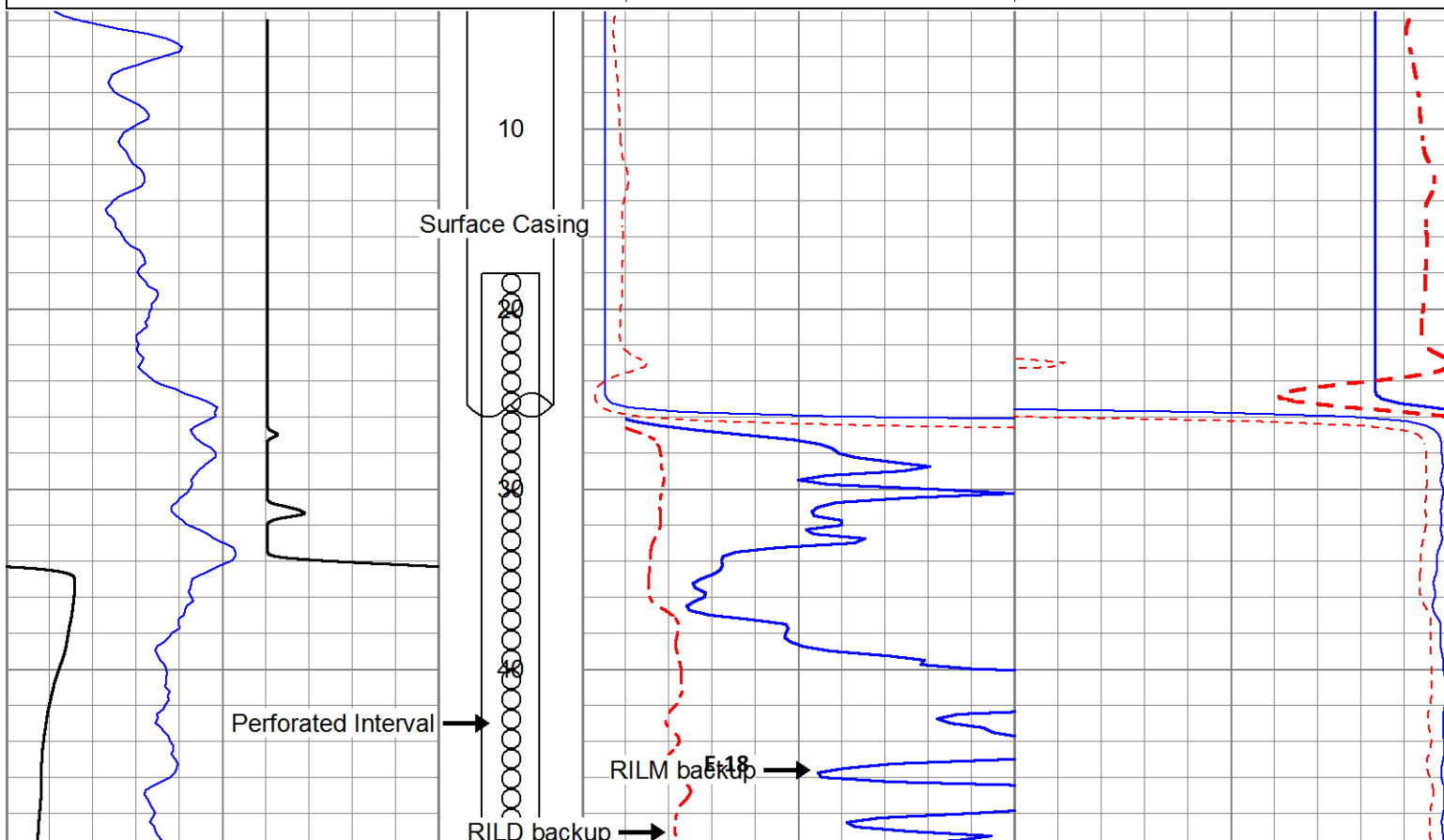
Calibrator Value: 162.0 GAPI

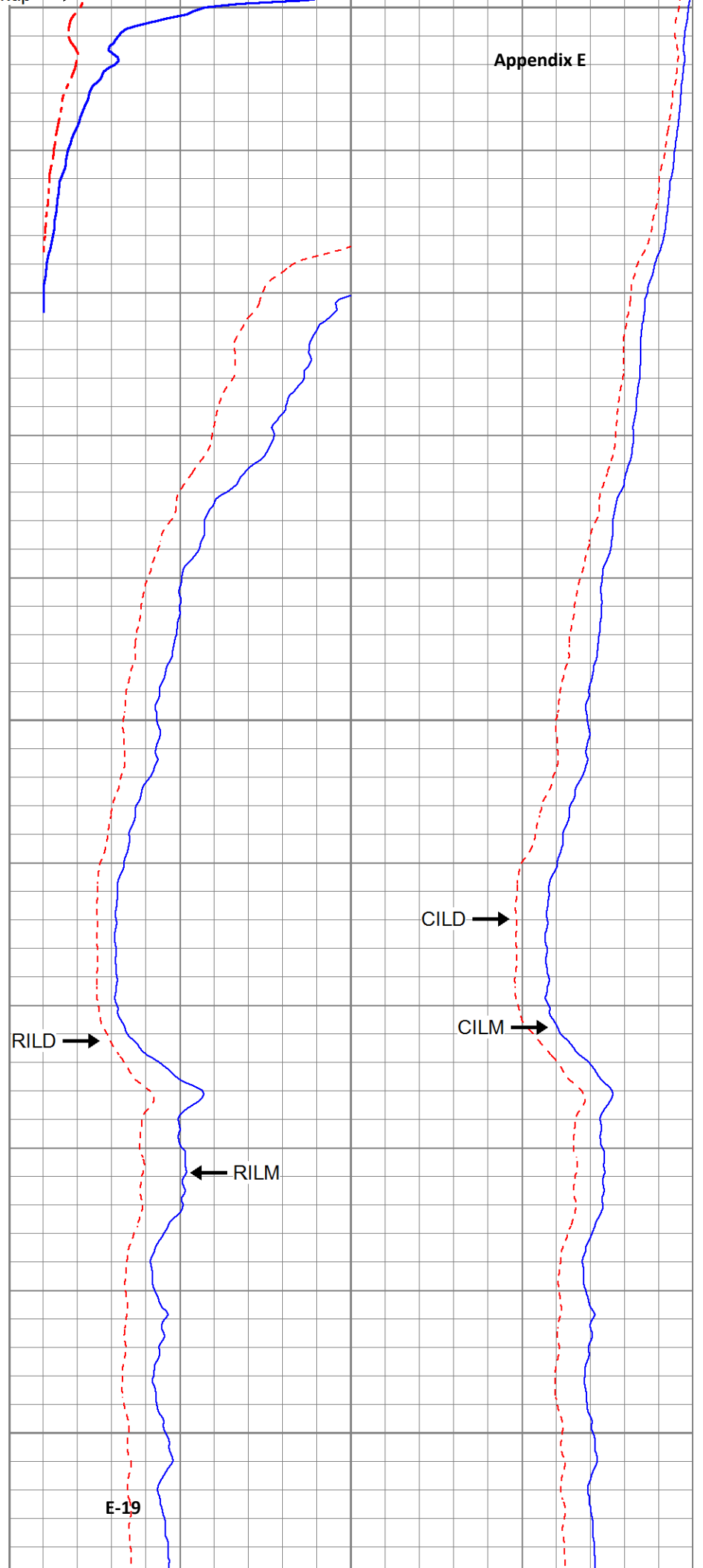
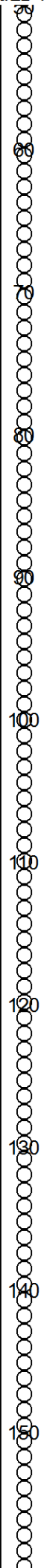
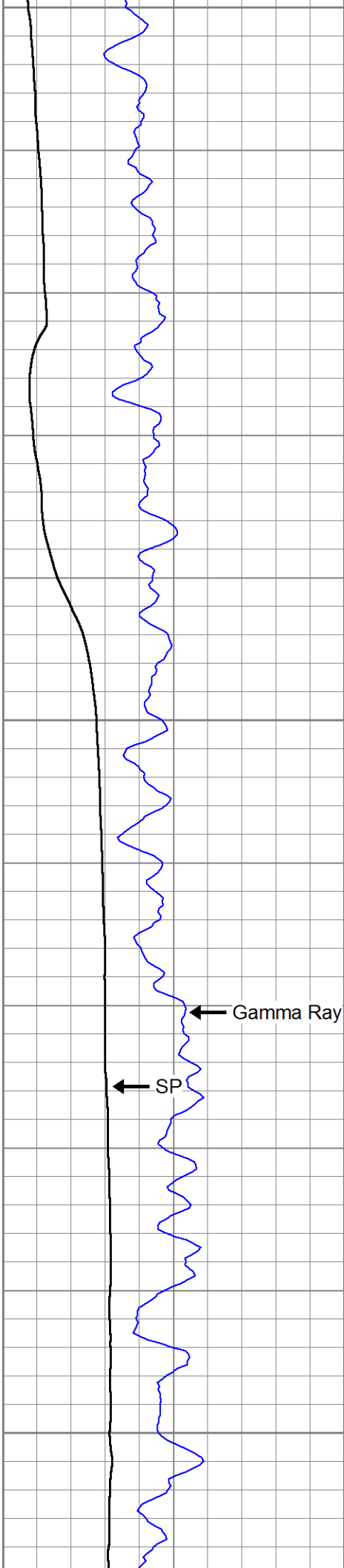
Background Reading: 46.1 cps
 Calibrator Reading: 180.8 cps

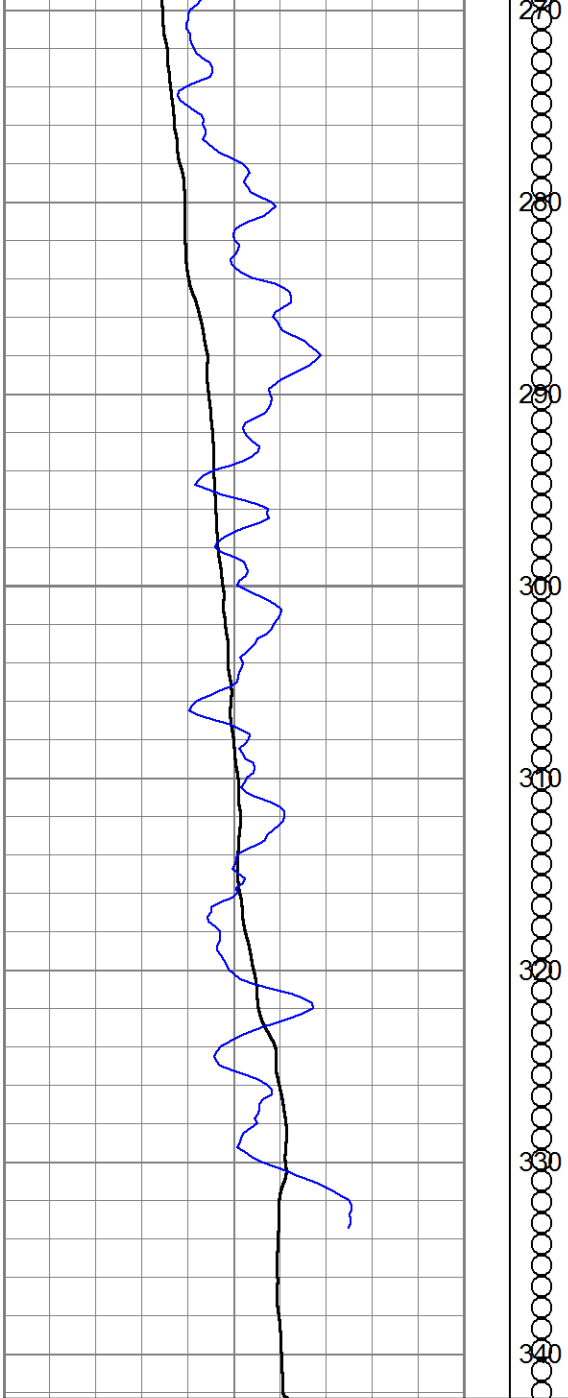
Sensitivity: 1.2020 GAPI/cps

Database File 18145.db
 Dataset Pathname dil/dil.1
 Presentation Format dil_ps
 Dataset Creation Thu Mar 27 14:50:26 2014
 Charted by Depth in Feet scaled 1:120

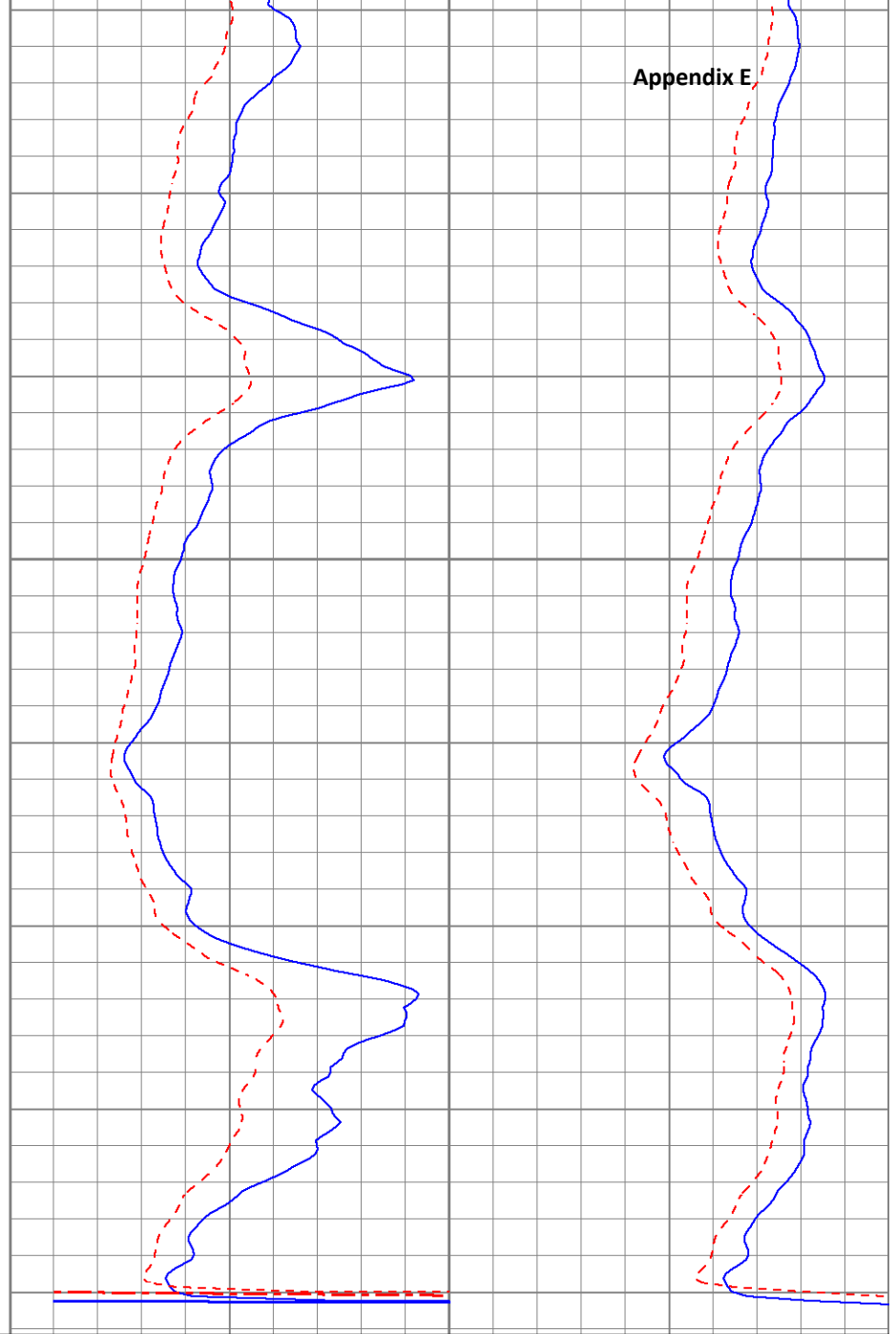
-125	SP (mV)	75	0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
10	Gamma Ray (GAPI)	110	0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
			5	RILM backup (Ohm-m)	105	15000	CILM backup (mmho/m)	1500
			5	RILD backup (Ohm-m)	105	15000	CILD backup (mmho/m)	1500







-125	SP (mV)	75
10	Gamma Ray (GAPI)	110



0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
5	RILM backup (Ohm-m)	105	15000	CILM backup (mmho/m)	1500
5	RILD backup (Ohm-m)	105	15000	CILD backup (mmho/m)	1500

DUAL INDUCTION GAMMA RAY

Job No. 18298	Company	CASCADE DRILLING INC.		
	Well	MDW-1		
File No.	Field	CASTROVILLE		
	County	MONTEREY	State	CA

Location MONTEREY DUNES WAY GPS: N36o 46.540' W121o 47.694'	Other Services: TEMPERATURE FLUID RESISTIVITY
---	---

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L.	0'	above perm. datum
Drilling Measured From	G.L.		K.B. D.F. G.L.

Date	4-28-2014		
Run Number	ONE		
Depth Driller	292'		
Depth Logger	291'		
Bottom Logged Interval	291'		
Top Log Interval	0'		
Open Hole Size	9" (17-47')	8" (47-300')	
Type Fluid	WATER		
Density / Viscosity	N/A		
Fluid Level	~17'		
Bentonite Seal	N/A		
Time Well Ready	11:00		
Time Logger on Bottom	11:20		
Equipment Number	PS-3		
Location	LA		
Recorded By	WATKINS		
Witnessed By	N. REYNOLDS		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	9"	17'	47'				
ONE	8"	47'	300'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	10"	N/A	0'	17'
Prot. String				
Production String	4"	N/A	0'	292'
Liner				E-22

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Comments

4" CASING INSTALLED TO 294'. FILL MATERIAL TAGGED AT 292'. CASING HAD 0.010" SLOTS.

Calibration Report

Database File 18298.db
 Dataset Pathname DIL
 Dataset Creation Mon Apr 28 12:14:40 2014

Dual Induction Calibration Report

Serial-Model:
Surface Cal Performed:

0001-ALT
Wed Aug 31 18:21:15 2011

Appendix E

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	1407.490	3493.640	cps	0.000	612.000	mmho/m	0.293	-412.905
Medium	1908.120	14487.900	cps	0.000	1960.000	mmho/m	0.156	-297.296

Gamma Ray Calibration Report

Serial Number: PS_1
 Tool Model: 01
 Performed: Wed Aug 31 18:22:13 2011

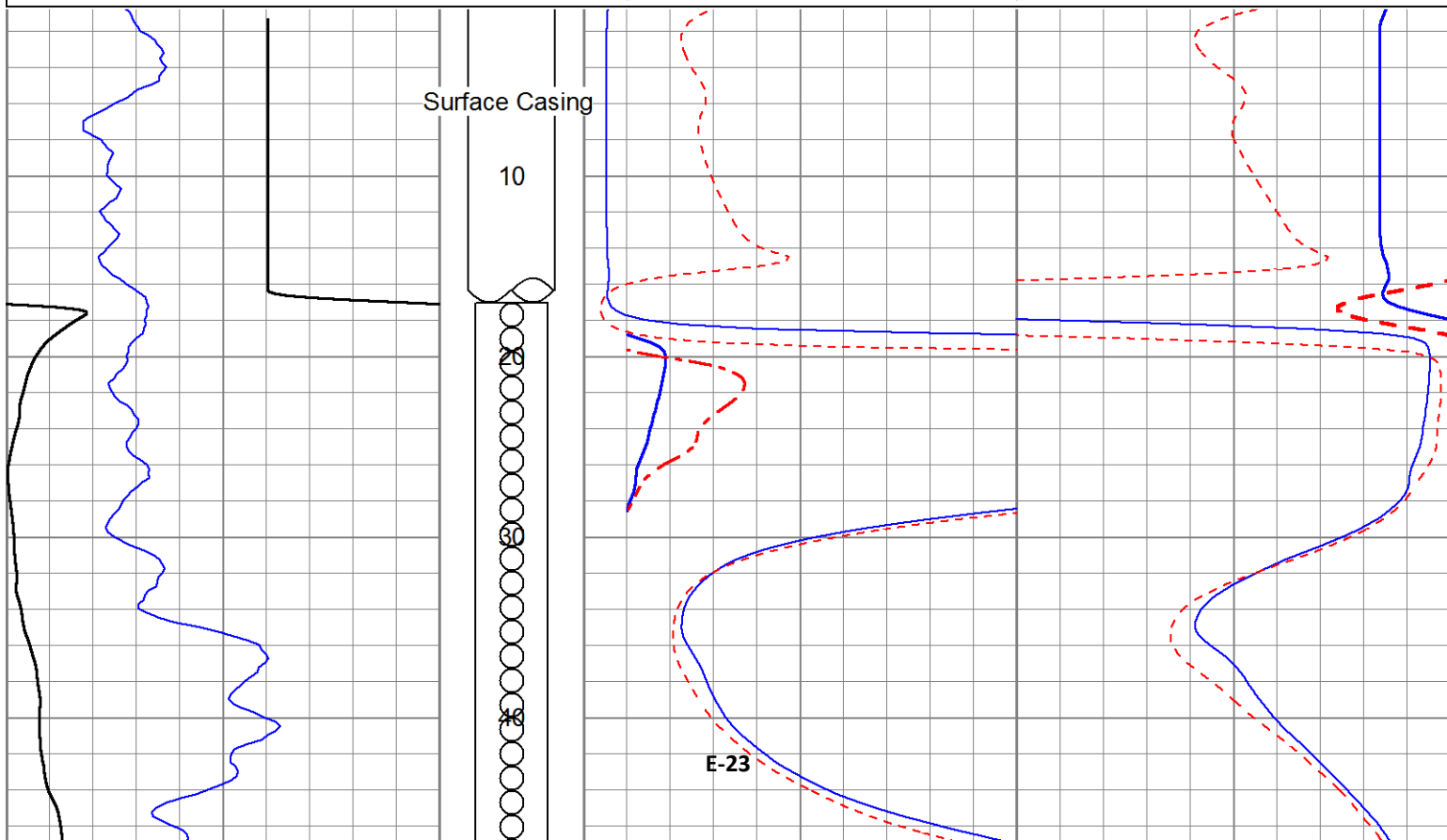
Calibrator Value: 162.0 GAPI

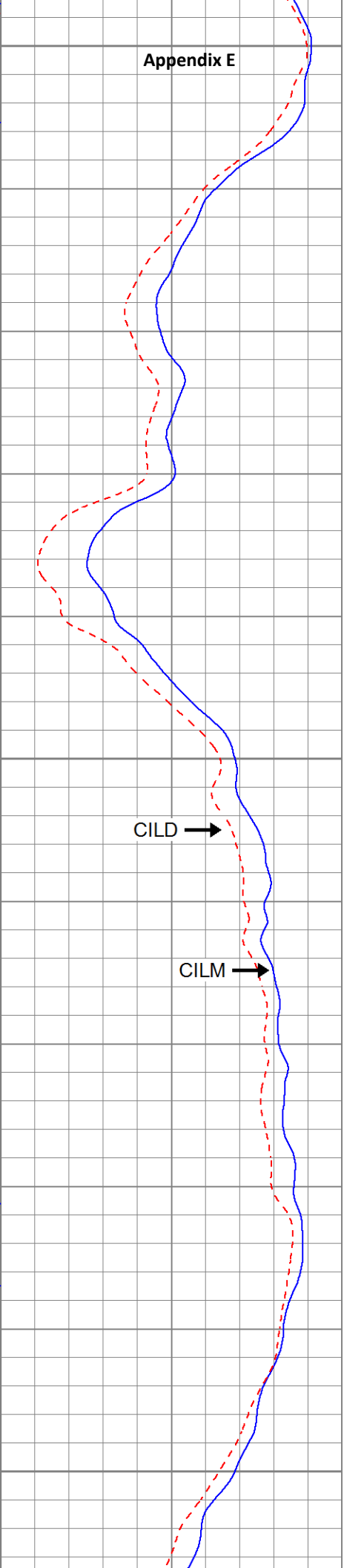
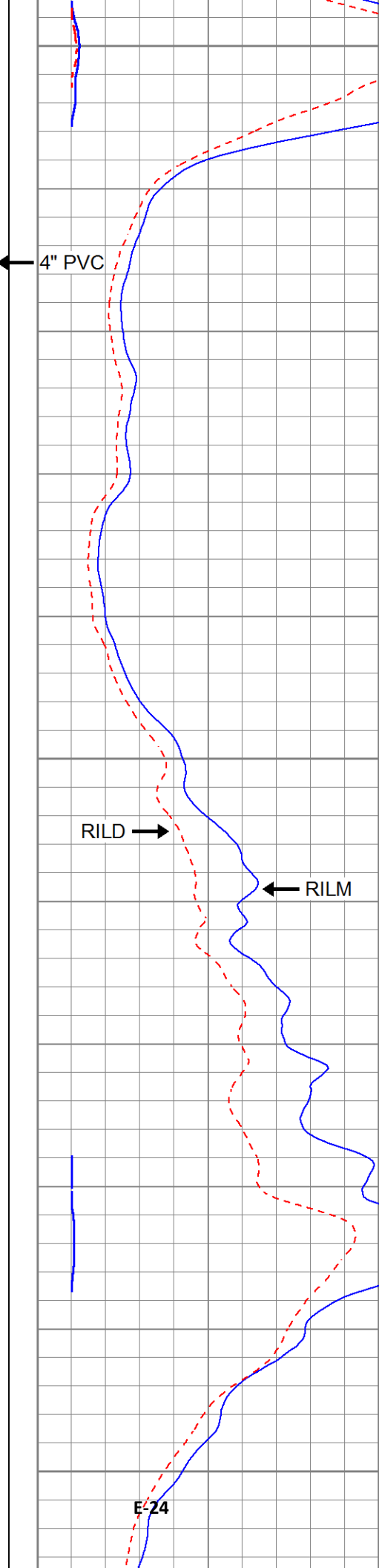
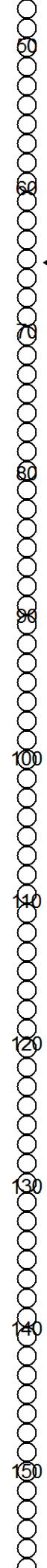
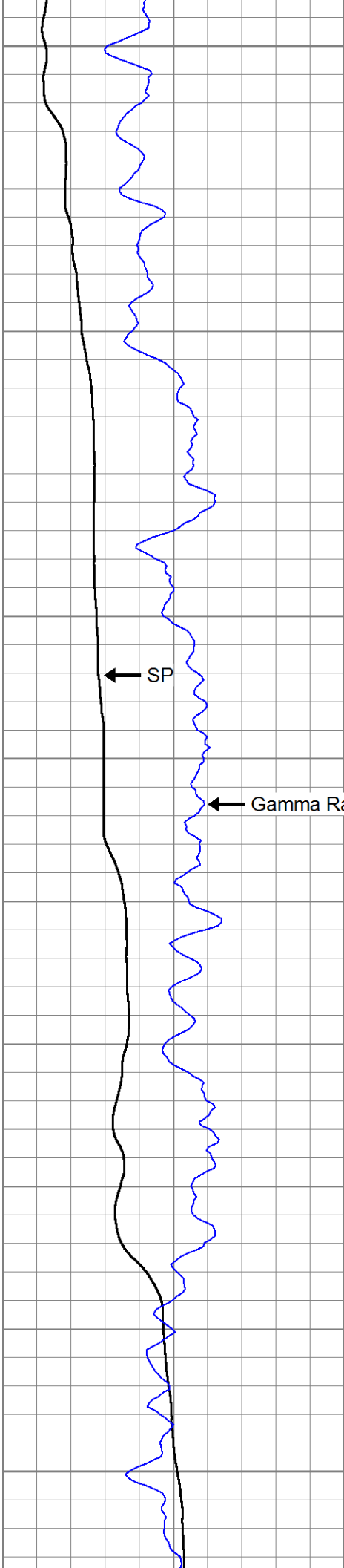
Background Reading: 46.1 cps
 Calibrator Reading: 180.8 cps

Sensitivity: 1.2020 GAPI/cps

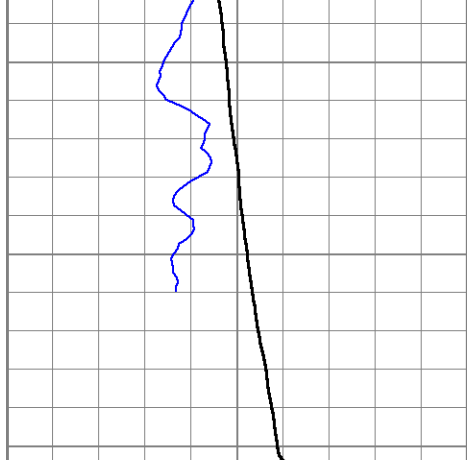
Database File 18298.db
 Dataset Pathname DIL
 Presentation Format dil_ps
 Dataset Creation Mon Apr 28 12:14:40 2014
 Charted by Depth in Feet scaled 1:120

-125	SP (mV)	75	0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
10	Gamma Ray (GAPI)	110	0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
			5	RILM backup (Ohm-m)	105	15000	CILM backup (mmho/m)	1500
			5	RILD backup (Ohm-m)	105	15000	CILD backup (mmho/m)	1500

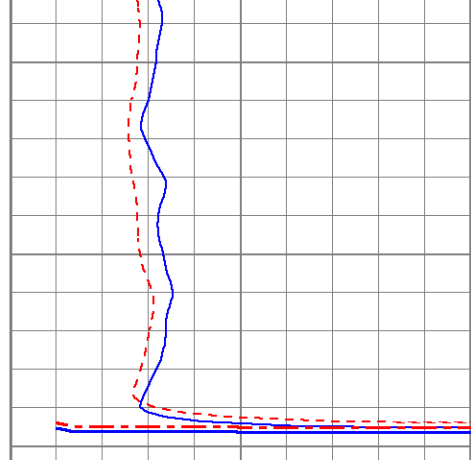




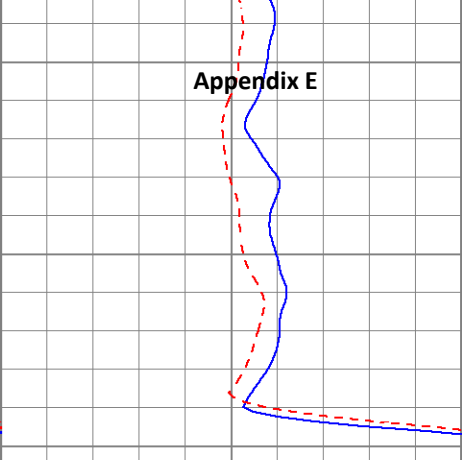
Appendix E



-125	SP (mV)	75
10	Gamma Ray (GAPI)	110



0	RILM (Ohm-m)	5
0	RILD (Ohm-m)	5



1500	CILM (mmho/m)	0
1500	CILD (mmho/m)	0

5	RILM backup (Ohm-m)	105	15000	CILM backup (mmho/m)	1500
5	RILD backup (Ohm-m)	105	15000	CILD backup (mmho/m)	1500

Appendix E

DUAL INDUCTION GAMMA-RAY

Job No. 17719	Company	CASCADE DRILLING, INC.		
	Well	ML-1		
File No.	Field	MOSS LANDING		
	County	MONTEREY	State	CA

Location NEAR SANDHOLDT RD GPS: N36o 47.967' W121o 47.343'	Other Services: TEMPERATURE FLUID RESISTIVITY
--	---

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L.	0'	above perm. datum
Drilling Measured From	G.L.		K.B. D.F. G.L.

Date	10-4-2013
Run Number	ONE
Depth Driller	200'
Depth Logger	200'
Bottom Logged Interval	200'
Top Log Interval	0'
Open Hole Size	8"
Type Fluid	N/A
Density / Viscosity	N/A
Fluid Level	N/A
Bentonite Seal	N/A
Time Well Ready	15:30
Time Logger on Bottom	15:45
Equipment Number	PS-3
Location	LA
Recorded By	WATKINS
Witnessed By	N. REYNOLDS

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	8"	0'	200'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9"	N/A	0'	10'
Prot. String	4"	N/A	0'	200'
Production String				
Liner				E-27

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Comments

0.010" SLOT FROM 10-200' BGS

Calibration Report

Database File 17719.db
 Dataset Pathname dli
 Dataset Creation Fri Oct 04 15:51:34 2013

Dual Induction Calibration Report

Serial-Model:
Surface Cal Performed:

0001-ALT
Wed Aug 31 18:21:15 2011

Appendix E

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	1407.490	3493.640	cps	0.000	612.000	mmho/m	0.293	-412.905
Medium	1908.120	14487.900	cps	0.000	1960.000	mmho/m	0.156	-297.296

Gamma Ray Calibration Report

Serial Number: PS_1
 Tool Model: 01
 Performed: Wed Aug 31 18:22:13 2011

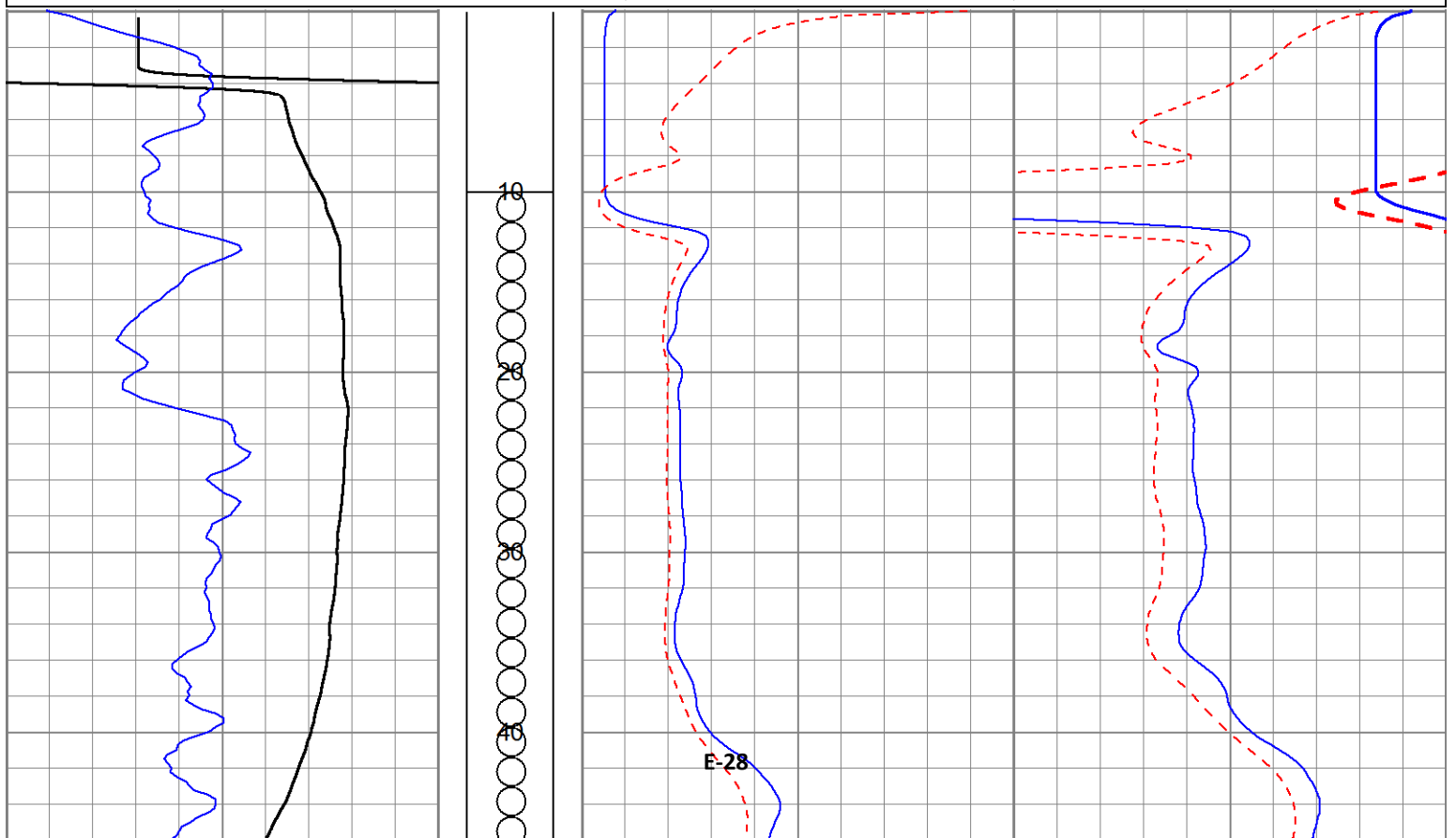
Calibrator Value: 162.0 GAPI

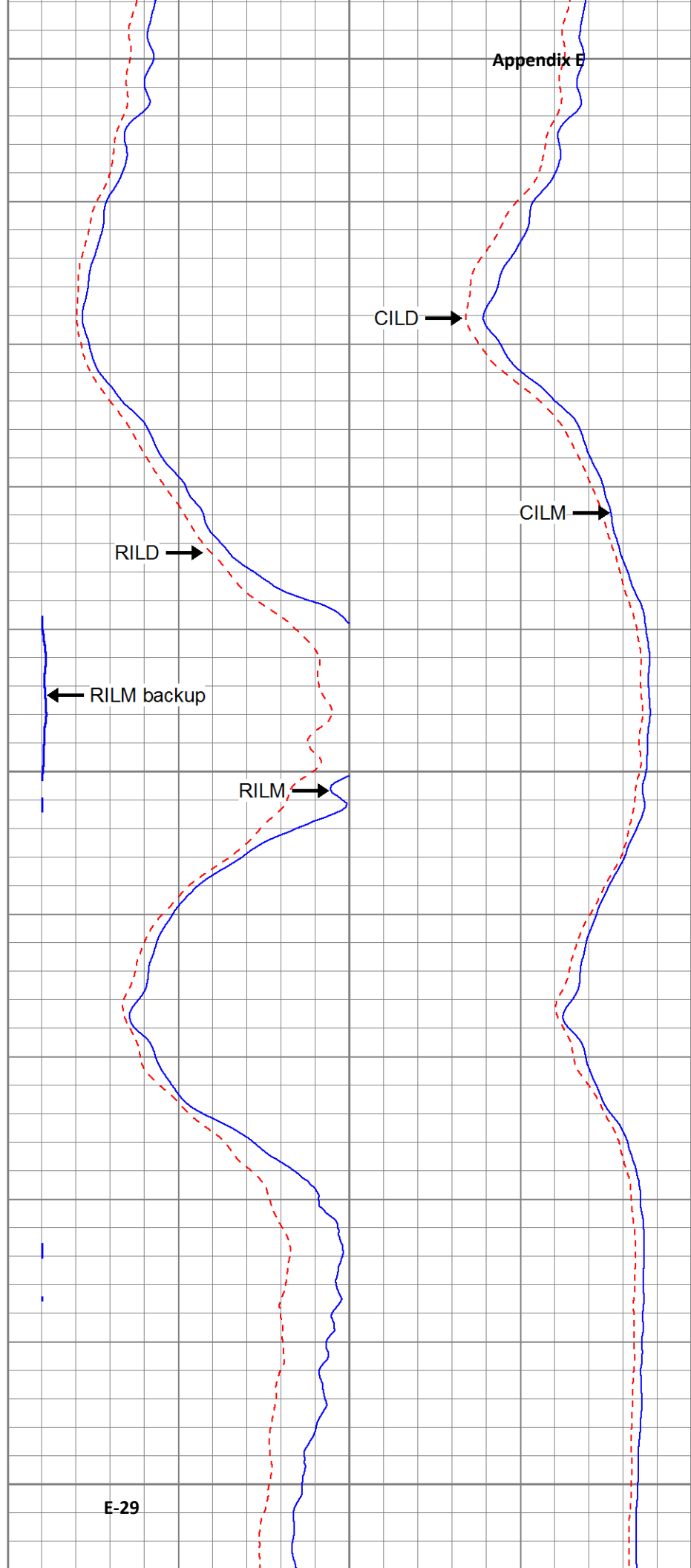
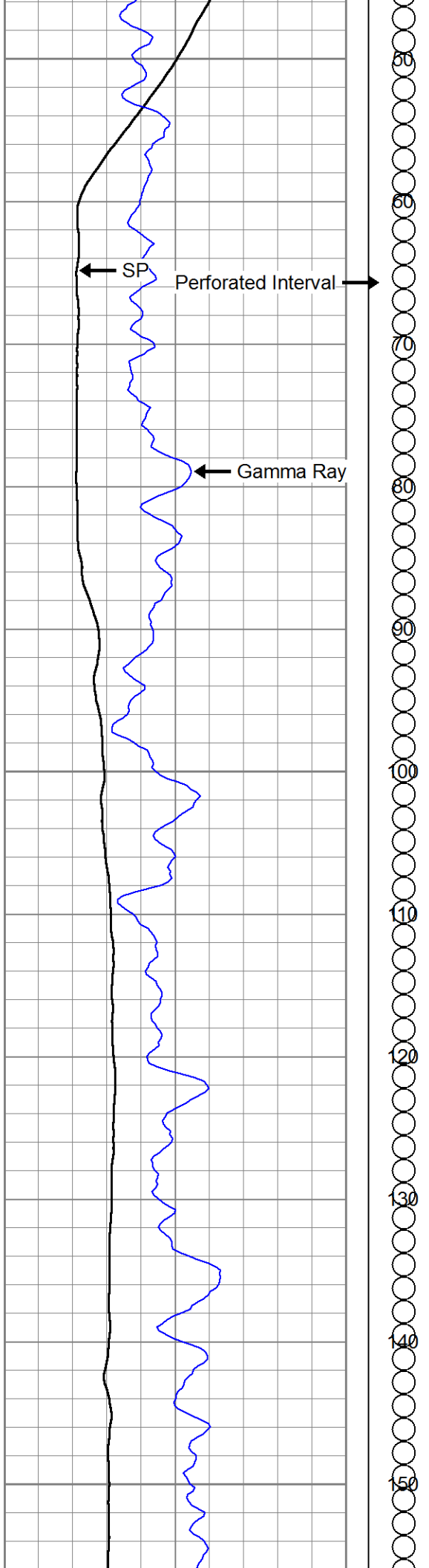
Background Reading: 46.1 cps
 Calibrator Reading: 180.8 cps

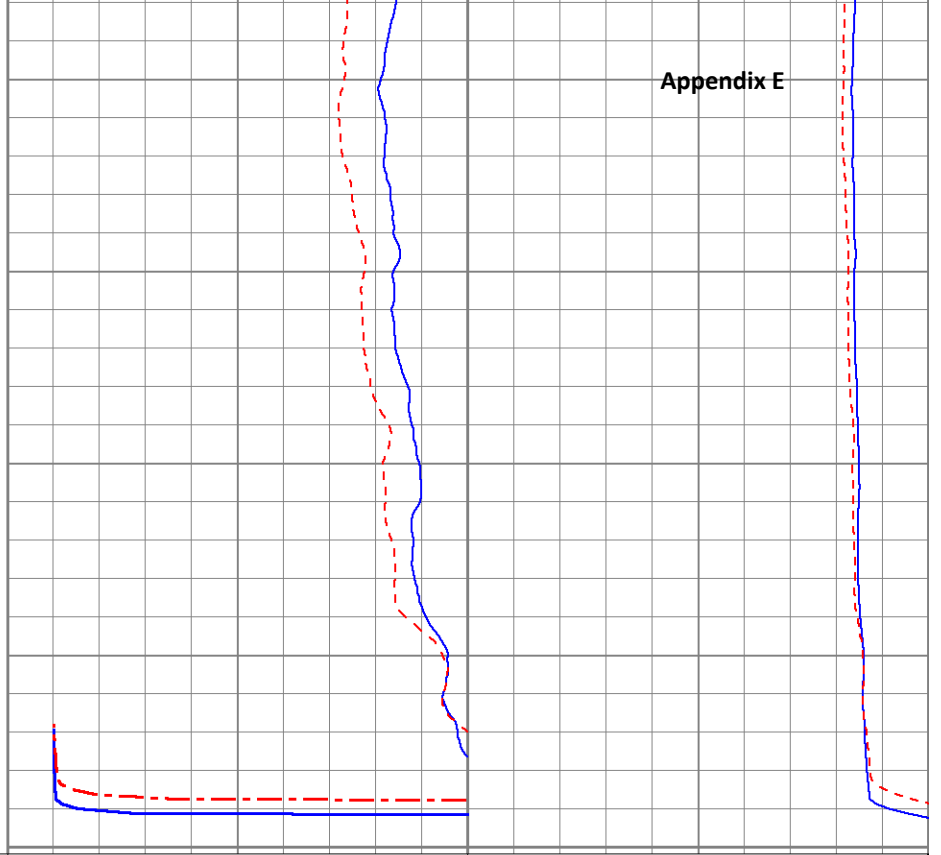
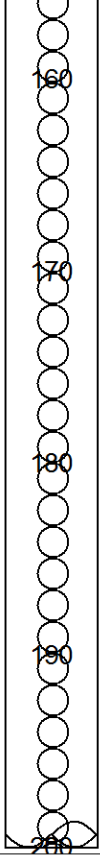
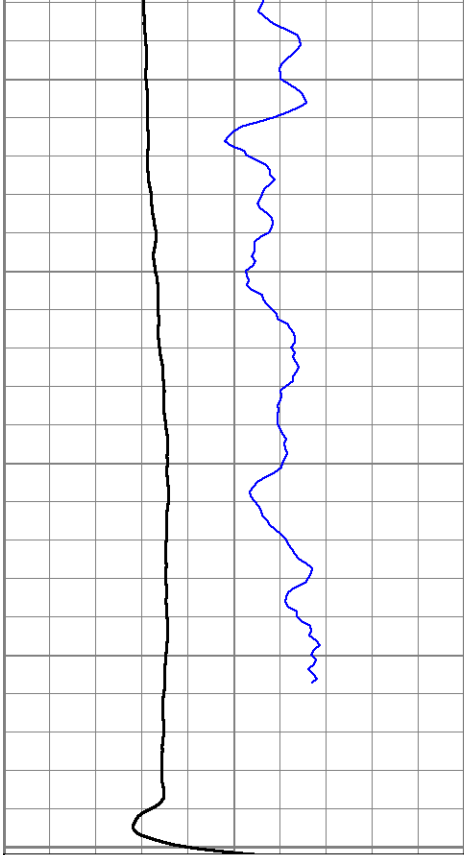
Sensitivity: 1.2020 GAPI/cps

Database File 17719.db
 Dataset Pathname dil
 Presentation Format dil_ps
 Dataset Creation Fri Oct 04 15:51:34 2013
 Charted by Depth in Feet scaled 1:120

-100	SP (mV)	50	0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
10	Gamma Ray (GAPI)	110	0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
			5	RILM backup (Ohm-m)	50	15000	CILM backup (mmho/m)	1500
			5	RILD backup (Ohm-m)	50	15000	CILD backup (mmho/m)	1500







-100	SP (mV)	50
10	Gamma Ray (GAPI)	110

0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
5	RILM backup (Ohm-m)	50	15000	CILM backup (mmho/m)	1500
5	RILD backup (Ohm-m)	50	15000	CILD backup (mmho/m)	1500

DUAL INDUCTION GAMMA-RAY

Job No. 17870	Company	CASCADE DRILLING		
	Well	ML-2		
File No.	Field	MOSS LANDING		
	County	MONTEREY	State	CA

Location 7549 SANDHOLDT RD. GPS: N36o 48.205' W121o 47.218'	Other Services: TEMPERATURE FLUID RESISTIVITY
---	---

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L.	0'	above perm. datum
Drilling Measured From	G.L.		K.B. D.F. G.L.

Date	12-11-2013
Run Number	ONE
Depth Driller	197'
Depth Logger	194.5'
Bottom Logged Interval	194.5'
Top Log Interval	0'
Open Hole Size	8"
Type Fluid	WATER
Density / Viscosity	N/A
Fluid Level	3.45'
Bentonite Seal	N/A
Time Well Ready	0945
Time Logger on Bottom	1000
Equipment Number	PS-7
Location	LA
Recorded By	SCHUMACHER
Witnessed By	N. REYNOLDS

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	8"	0'	200'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8"	N/A	0'	23.5'
Prot. String				
Production String	4" PVC	SCH 40	0'	198'
Liner				E-31

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Comments

NOTE: 0.010" SLOT FROM 18.5' TO 198'.

Calibration Report

Database File 17870.db
 Dataset Pathname DUAL
 Dataset Creation Wed Dec 11 11:54:33 2013

Dual Induction Calibration Report

Serial-Model:
Surface Cal Performed:

0001-ALT

Appendix E

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	1411.390	3440.570	cps	0.000	612.000	mmho/m	0.302	-425.677
Medium	2379.120	14715.100	cps	0.000	1960.000	mmho/m	0.159	-378.004

Gamma Ray Calibration Report

Serial Number: PS_1
 Tool Model: 01
 Performed: Wed Sep 19 16:56:13 2012

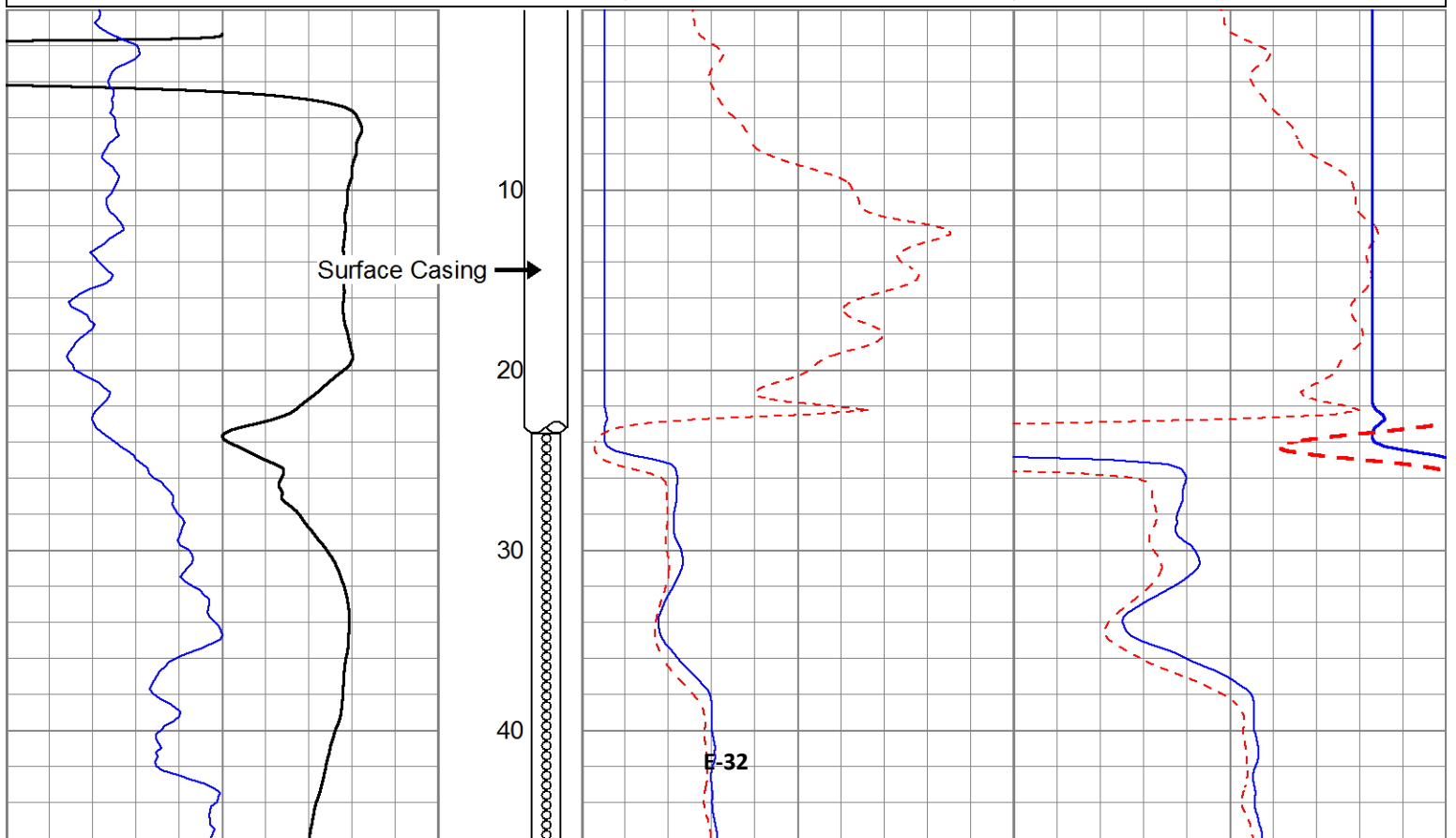
Calibrator Value: 162.0 GAPI

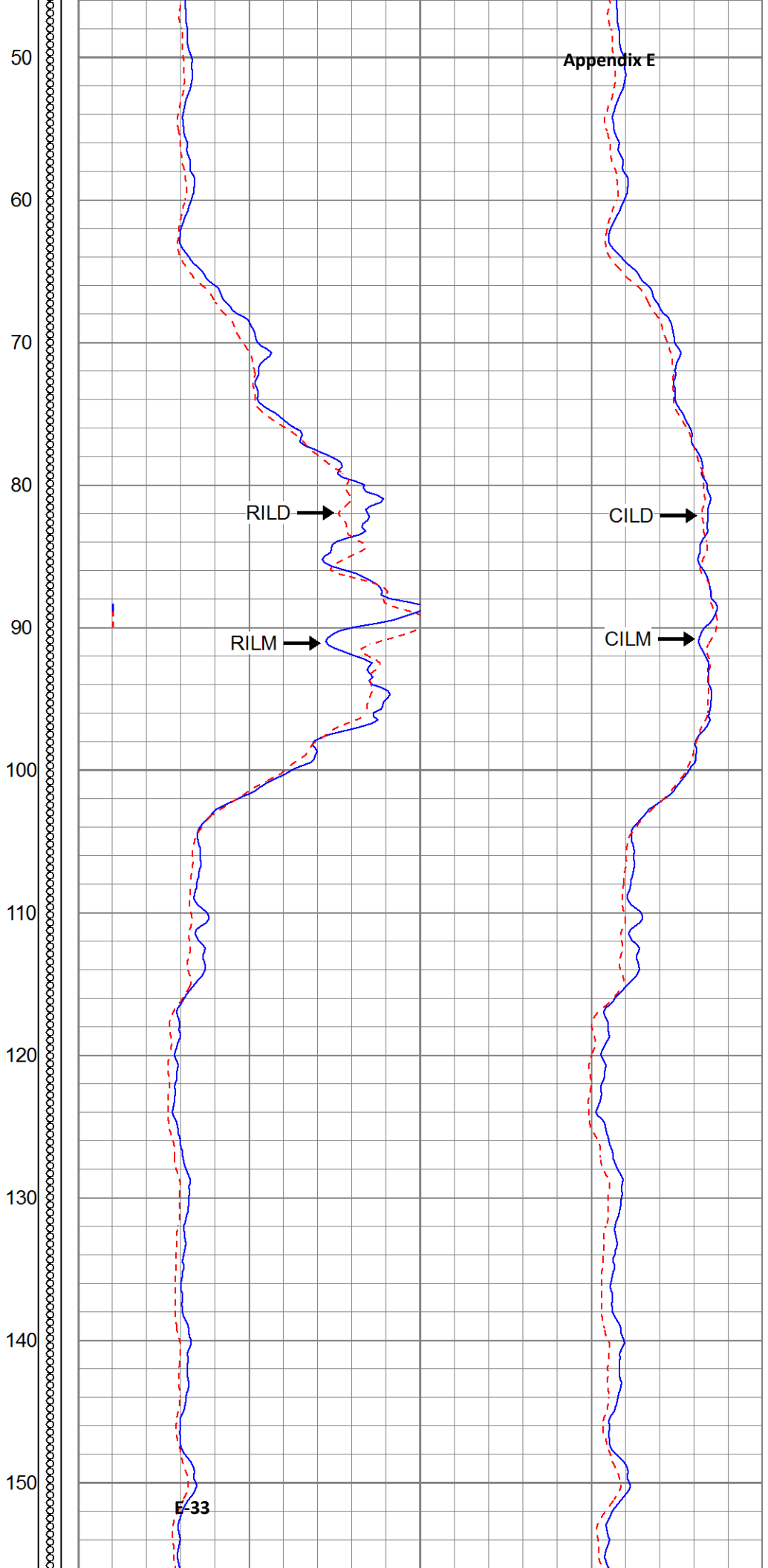
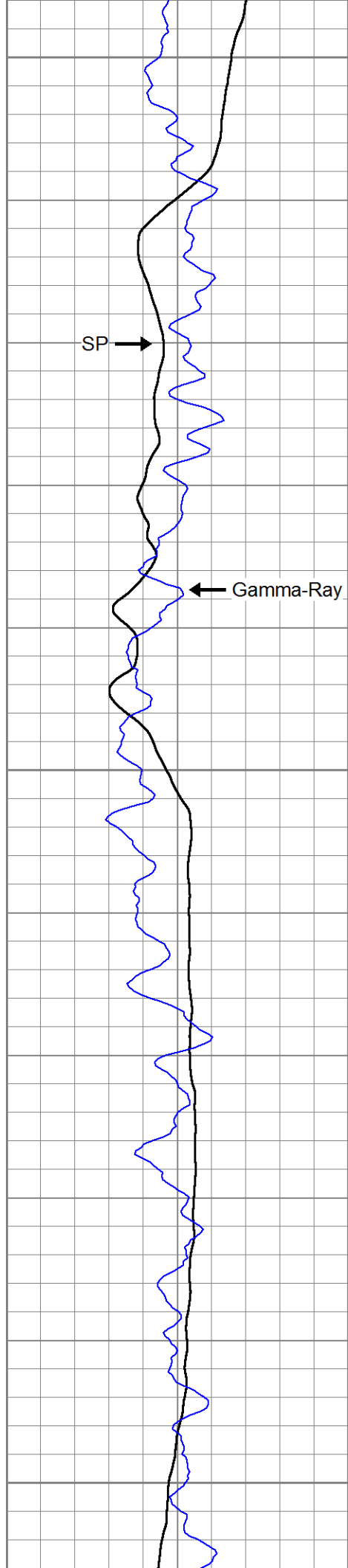
Background Reading: 46.1 cps
 Calibrator Reading: 180.8 cps

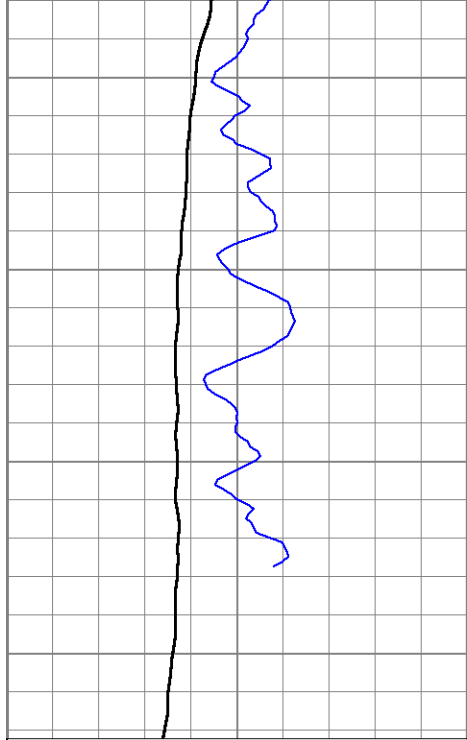
Sensitivity: 1.2020 GAPI/cps

Database File 17870.db
 Dataset Pathname DUAL
 Presentation Format dil_ps
 Dataset Creation Wed Dec 11 11:54:33 2013
 Charted by Depth in Feet scaled 1:120

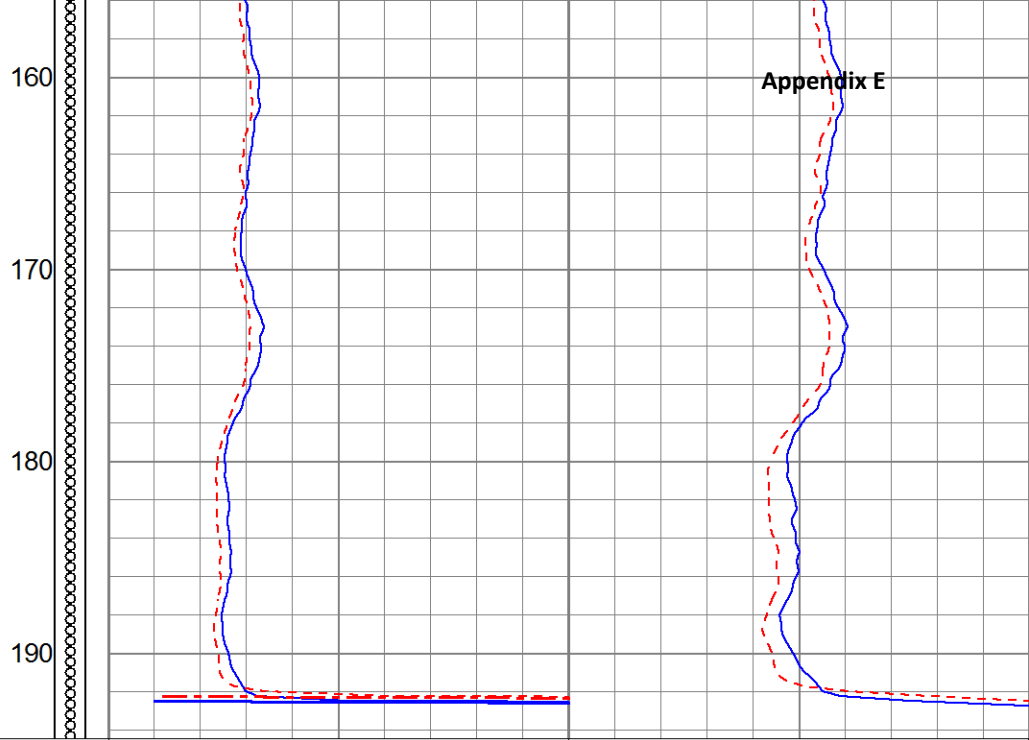
-50	SP (mV)	50	0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
10	Gamma Ray (GAPI)	110	0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
			5	RILM backup (Ohm-m)	50	15000	CILM backup (mmho/m)	1500
			5	RILD backup (Ohm-m)	50	15000	CILD backup (mmho/m)	1500







-50	SP (mV)	50
10	Gamma Ray (GAPI)	110



0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
5	RILM backup (Ohm-m)	50	15000	CILM backup (mmho/m)	1500
5	RILD backup (Ohm-m)	50	15000	CILD backup (mmho/m)	1500

DUAL INDUCTION GAMMA RAY

Job No. 17939	Company CASCADE DRILLING
File No.	Well ML-3
	Field MOSS LANDING
	County MONTEREY
	State CA

Location Intersection of Moss Landing Rd & Cabrillo Hwy GPS:N36o48.013' W121o47.021'	Other Services: TEMPERATURE FLUID RESISTIVITY
--	---

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L.	0'	above perm. datum
Drilling Measured From	G.L.		K.B. D.F. G.L.

Date	01-09-2014
Run Number	ONE
Depth Driller	198'
Depth Logger	197.5'
Bottom Logged Interval	197.5'
Top Log Interval	0'
Open Hole Size	8"
Type Fluid	WATER
Density / Viscosity	N/A
Fluid Level	10'
Bentonite Seal	N/A
Time Well Ready	9:30 AM
Time Logger on Bottom	10:00 AM
Equipment Number	PS-7
Location	LA
Recorded By	ABREAU
Witnessed By	N. REYNOLDS

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	8"	0'	200'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8"	N/A	0'	14'
Prot. String				
Production String	4" PVC	SCH 40	0'	200'
Liner				E-35

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Comments

NOTE: 0.010" SLOT FOR LENGTH OF PVC

Calibration Report

Database File 17939.db
Dataset Pathname dli2
Dataset Creation Thu Jan 09 11:22:56 2014

Dual Induction Calibration Report

Serial-Model:
Surface Cal Performed:

0001-ALT

Appendix E

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	1407.490	3493.640	cps	0.000	612.000	mmho/m	0.293	-412.906
Medium	1908.120	14487.900	cps	0.000	1960.000	mmho/m	0.156	-297.296

Gamma Ray Calibration Report

Serial Number: PS_1
 Tool Model: 01
 Performed: Wed Sep 19 16:56:13 2012

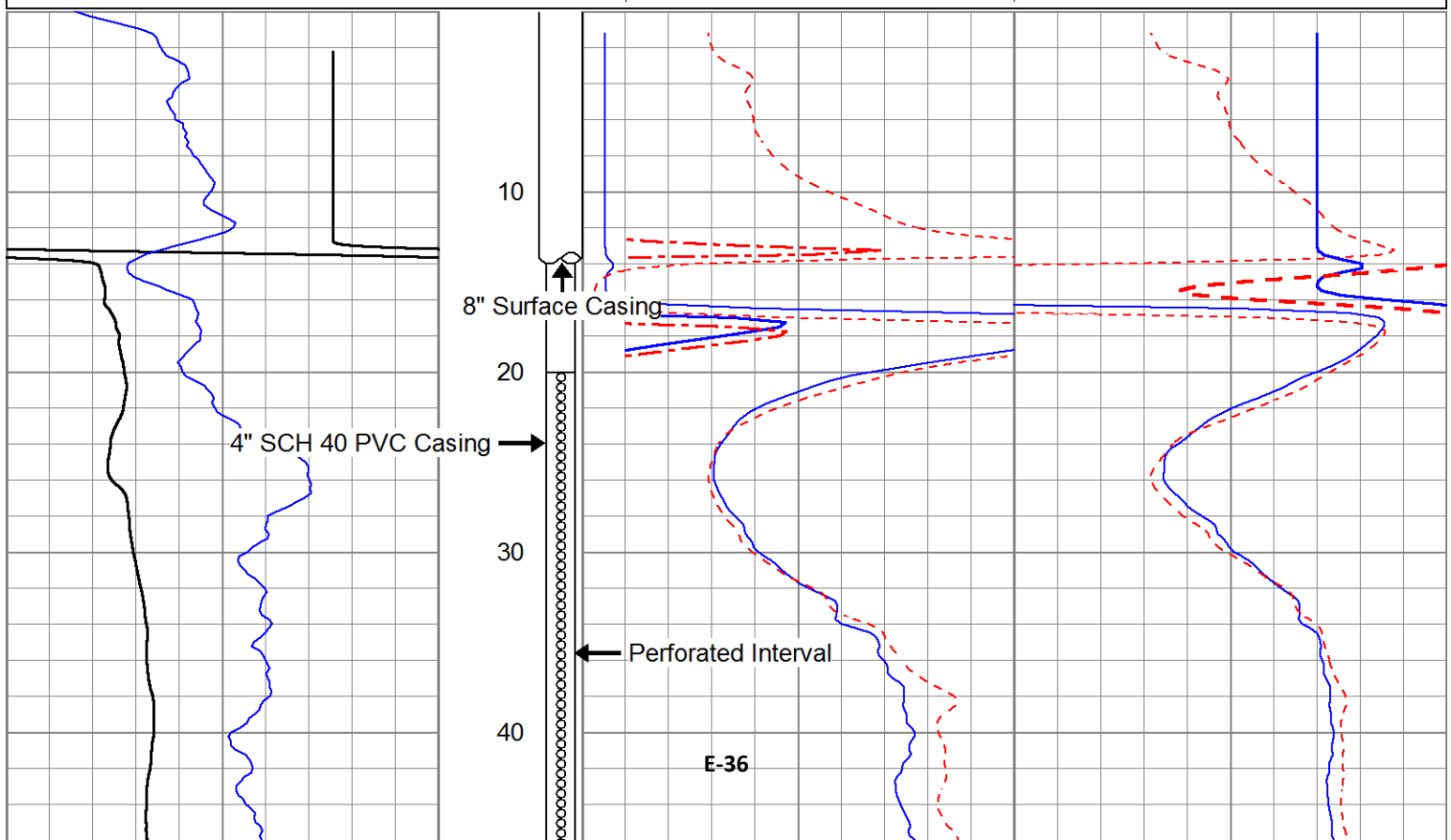
Calibrator Value: 162.0 GAPI

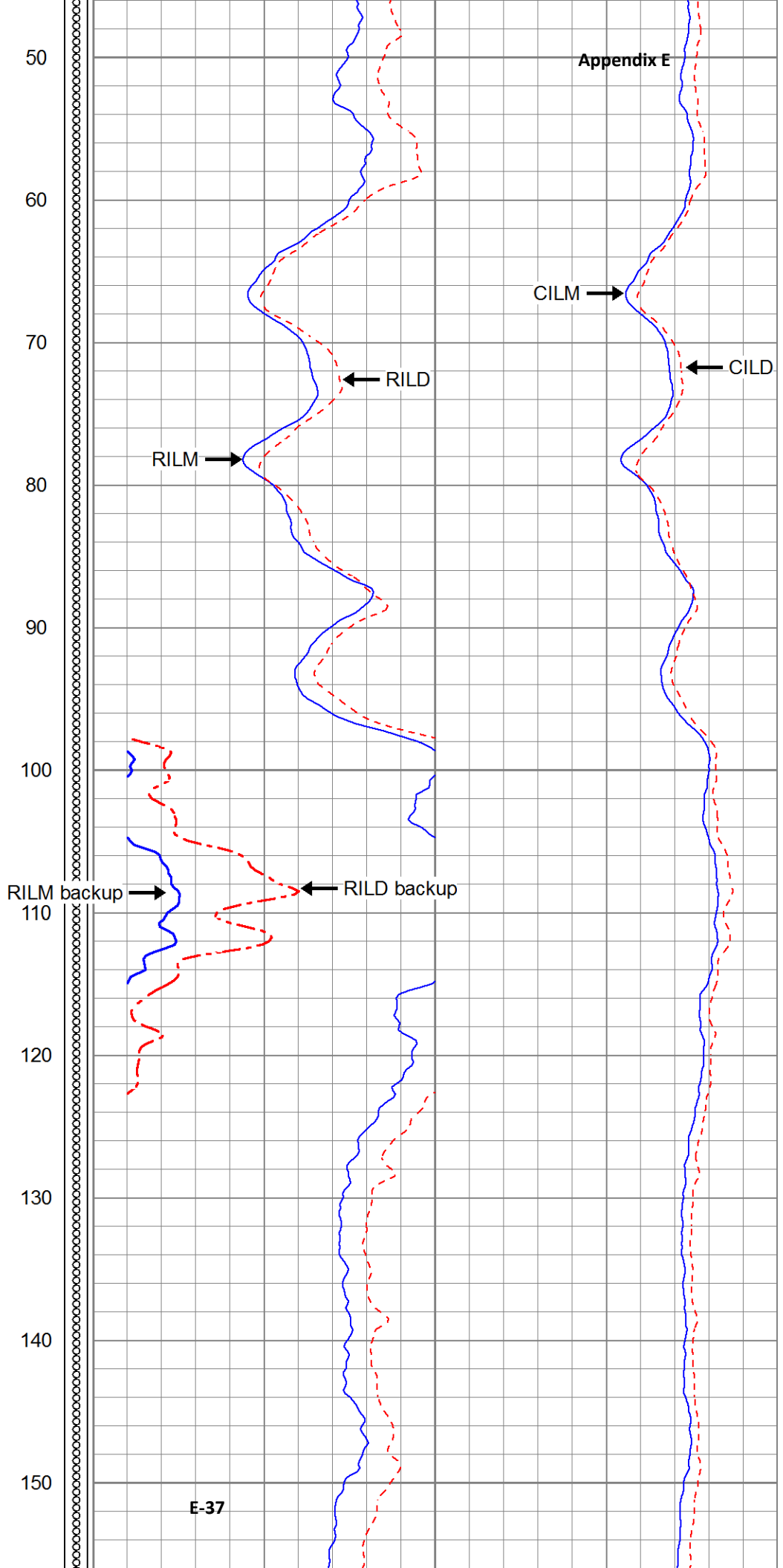
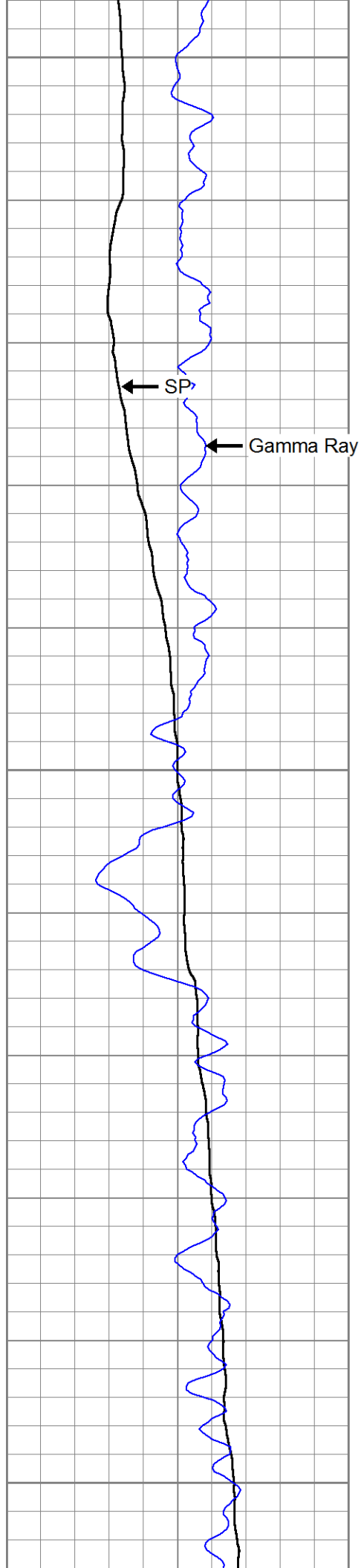
Background Reading: 46.1 cps
 Calibrator Reading: 180.8 cps

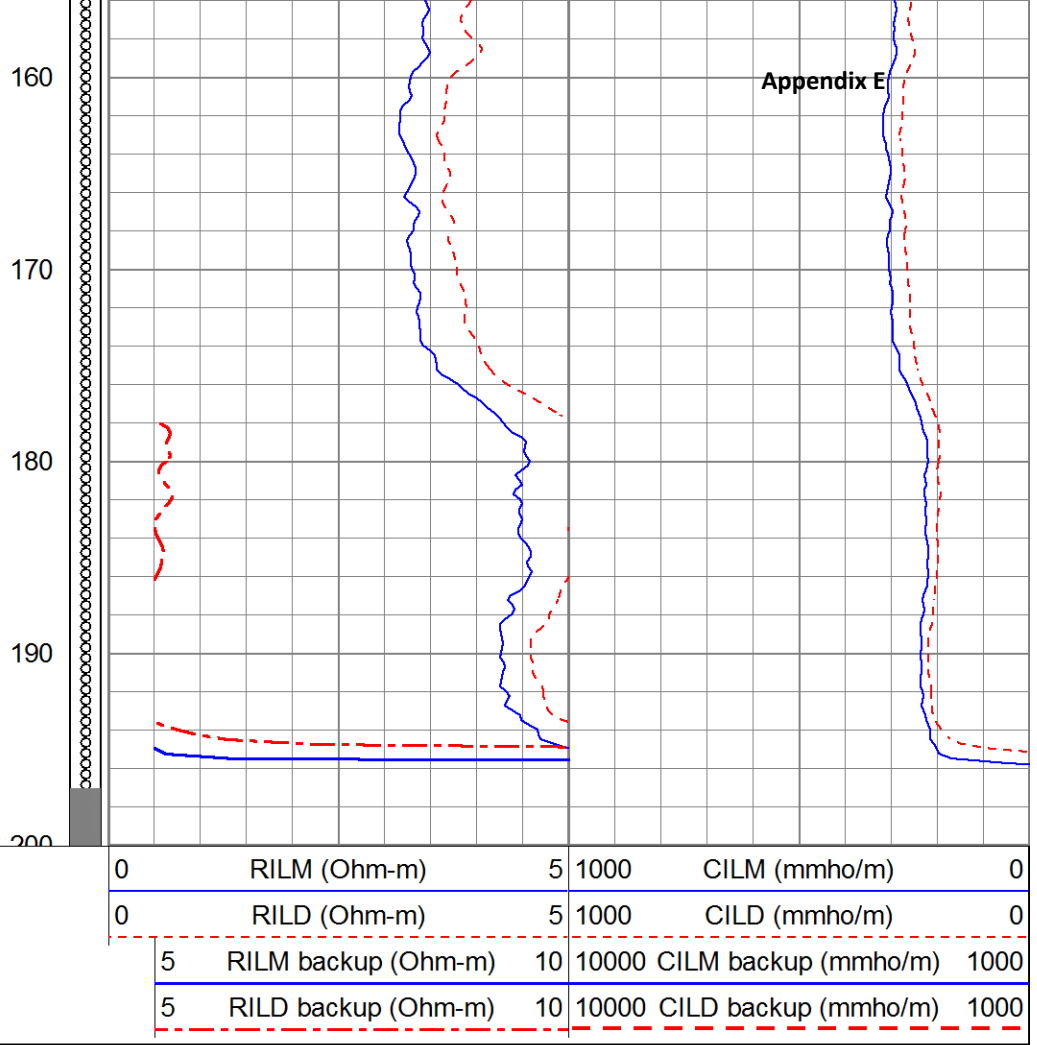
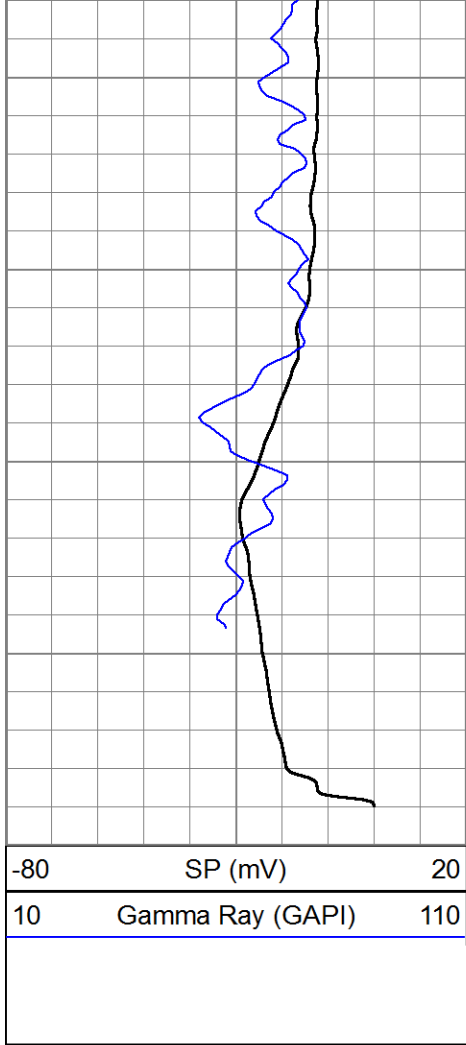
Sensitivity: 1.2020 GAPI/cps

Database File 17939.db
 Dataset Pathname dil2
 Presentation Format dil_ps
 Dataset Creation Thu Jan 09 11:22:56 2014
 Charted by Depth in Feet scaled 1:120

-80	SP (mV)	20	0	RILM (Ohm-m)	5	1000	CILM (mmho/m)	0
10	Gamma Ray (GAPI)	110	0	RILD (Ohm-m)	5	1000	CILD (mmho/m)	0
			5	RILM backup (Ohm-m)	10	10000	CILM backup (mmho/m)	1000
			5	RILD backup (Ohm-m)	10	10000	CILD backup (mmho/m)	1000







DUAL INDUCTION GAMMA-RAY

Job No. 17859
 Company CASCADE DRILLING
 Well ML-4
 File No. Field MOSS LANDING
 County MONTEREY State CA

Location
 SOUTH OF INTERSECTION OF CABRILLO HWY & DOLAN RD
 GPS: N36o 48.156' W121o 47.030'

Other Services:
 TEMPERATURE
 FLUID RESISTIVITY

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L. 0'	above perm. datum	K.B.
Drilling Measured From	G.L.		D.F.
			G.L.

Date	12-3-2013
Run Number	ONE
Depth Driller	195.5'
Depth Logger	195.5'
Bottom Logged Interval	195.5'
Top Log Interval	0'
Open Hole Size	8"
Type Fluid	WATER
Density / Viscosity	N/A
Fluid Level	28'
Bentonite Seal	N/A
Time Well Ready	13:00
Time Logger on Bottom	13:15
Equipment Number	PS-7
Location	LA
Recorded By	WATKINS
Witnessed By	N. REYNOLDS

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	8"	0'	201'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8"	N/A	0'	14.5'
Prot. String				
Production String	4" PVC	SCH 40	0'	195.5'
Liner				E-39

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Comments

NOTE: 0.010" SLOT FOR LENGTH OF PVC

Calibration Report

Database File 17859.db
 Dataset Pathname dll
 Dataset Creation Tue Dec 03 14:01:05 2013

Dual Induction Calibration Report

Serial-Model:
Surface Cal Performed:

0001-ALT

Appendix E

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	1411.390	3440.570	cps	0.000	612.000	mmho/m	0.302	-425.677
Medium	2379.120	14715.100	cps	0.000	1960.000	mmho/m	0.159	-378.004

Gamma Ray Calibration Report

Serial Number: PS_1
 Tool Model: 01
 Performed: Wed Sep 19 16:56:13 2012

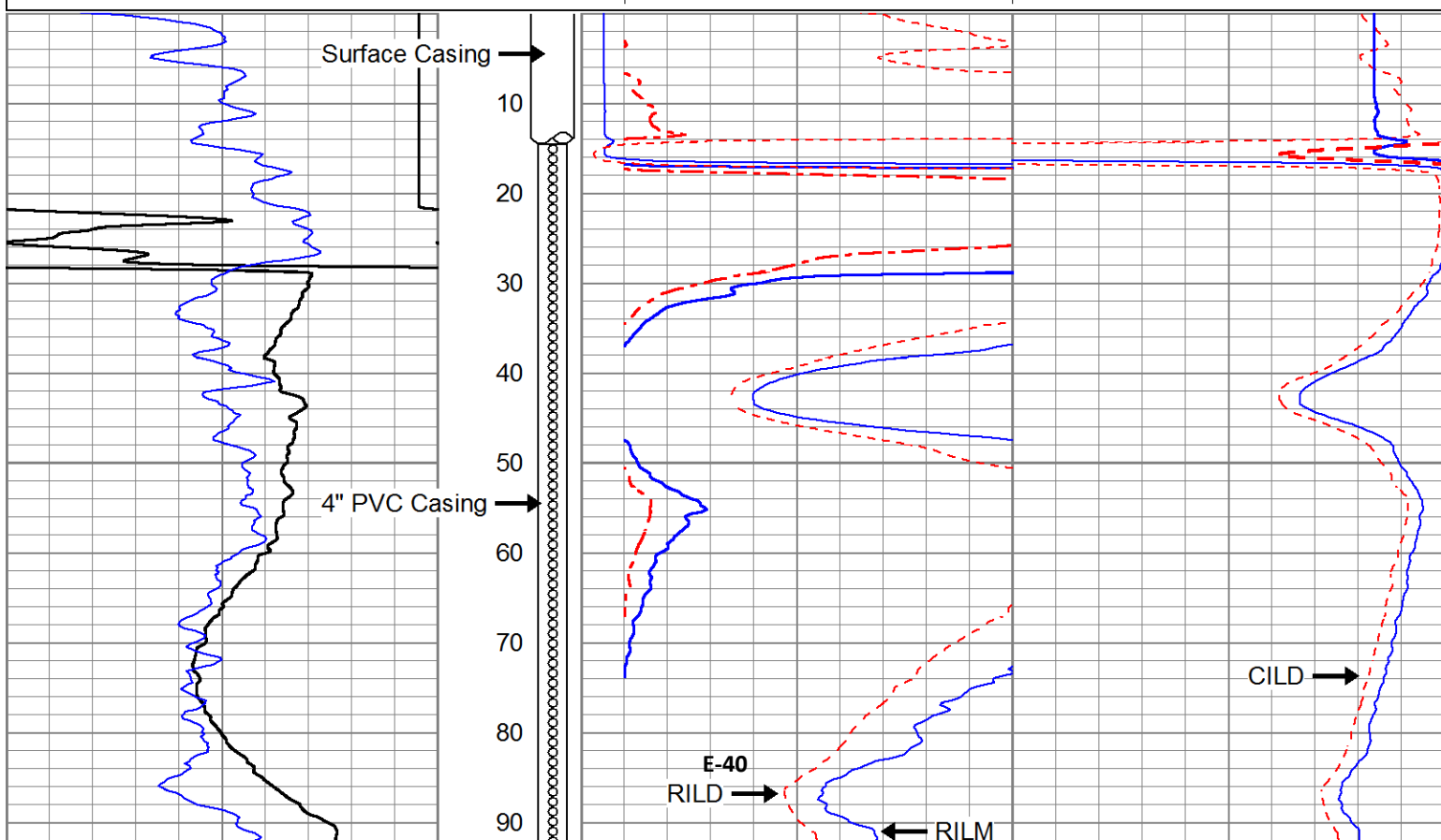
Calibrator Value: 162.0 GAPI

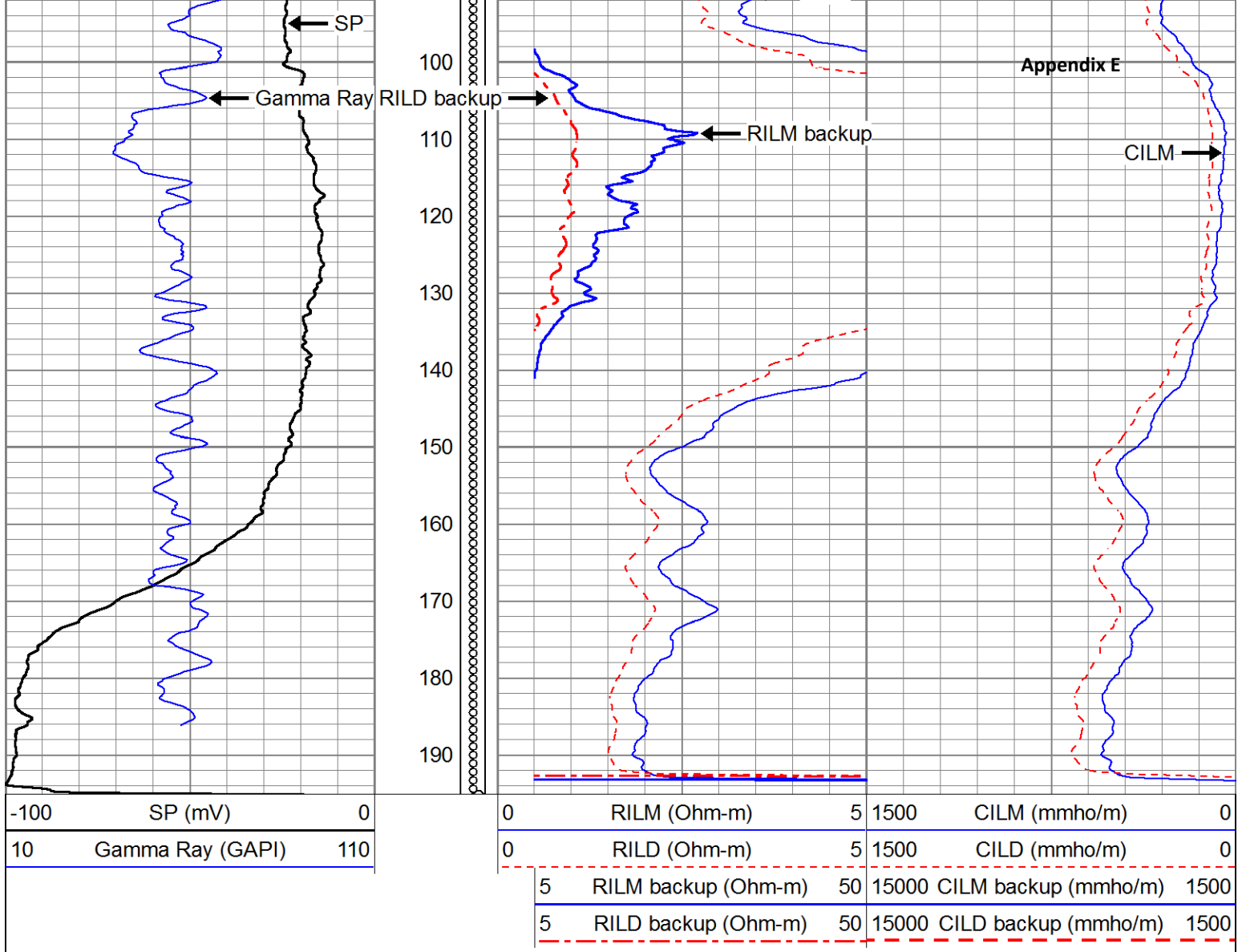
Background Reading: 46.1 cps
 Calibrator Reading: 180.8 cps

Sensitivity: 1.2020 GAPI/cps

Database File 17859.db
 Dataset Pathname dil
 Presentation Format dil_ps
 Dataset Creation Tue Dec 03 14:01:05 2013
 Charted by Depth in Feet scaled 1:240

-100	SP (mV)	0	0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
10	Gamma Ray (GAPI)	110	0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
			5	RILM backup (Ohm-m)	50	15000	CILM backup (mmho/m)	1500
			5	RILD backup (Ohm-m)	50	15000	CILD backup (mmho/m)	1500





DUAL INDUCTION GAMMA-RAY

Job No. 17787	Company	CASCADE DRILLING		
	Well	ML-6		
File No.	Field	MOSS LANDING		
	County	MONTEREY	State	CA

Location 7500 SANDHOLDT RD.	Other Services: TEMPERATURE FLUID RESISTIVITY
--------------------------------	---

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L.	0'	above perm. datum
Drilling Measured From	G.L.		K.B. D.F. G.L.

Date	11-20-2013
Run Number	ONE
Depth Driller	199.6'
Depth Logger	199.6'
Bottom Logged Interval	196.5'
Top Log Interval	0'
Open Hole Size	8"
Type Fluid	WATER
Density / Viscosity	N/A
Fluid Level	10'
Bentonite Seal	N/A
Time Well Ready	1415
Time Logger on Bottom	1430
Equipment Number	PS-7
Location	LA
Recorded By	SCHUMACHER
Witnessed By	N. REYNOLDS

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	8"	0'	200'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8"	N/A	0'	15'
Prot. String				
Production String	4" PVC	SCH 40	0'	200'
Liner				E-42

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Comments

NOTE: 0.010" SLOT FOR LENGTH OF PVC

Calibration Report

Database File 17787.db
Dataset Pathname dli2
Dataset Creation Wed Nov 20 15:33:46 2013

Dual Induction Calibration Report

Serial-Model:
Surface Cal Performed:

0001-ALT

Appendix E

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	1440.330	3755.270	cps	0.000	612.000	mmho/m	0.264	-380.779
Medium	1967.190	14170.100	cps	0.000	1960.000	mmho/m	0.161	-315.965

Gamma Ray Calibration Report

Serial Number: PS_1
 Tool Model: 01
 Performed: Wed Sep 19 16:56:13 2012

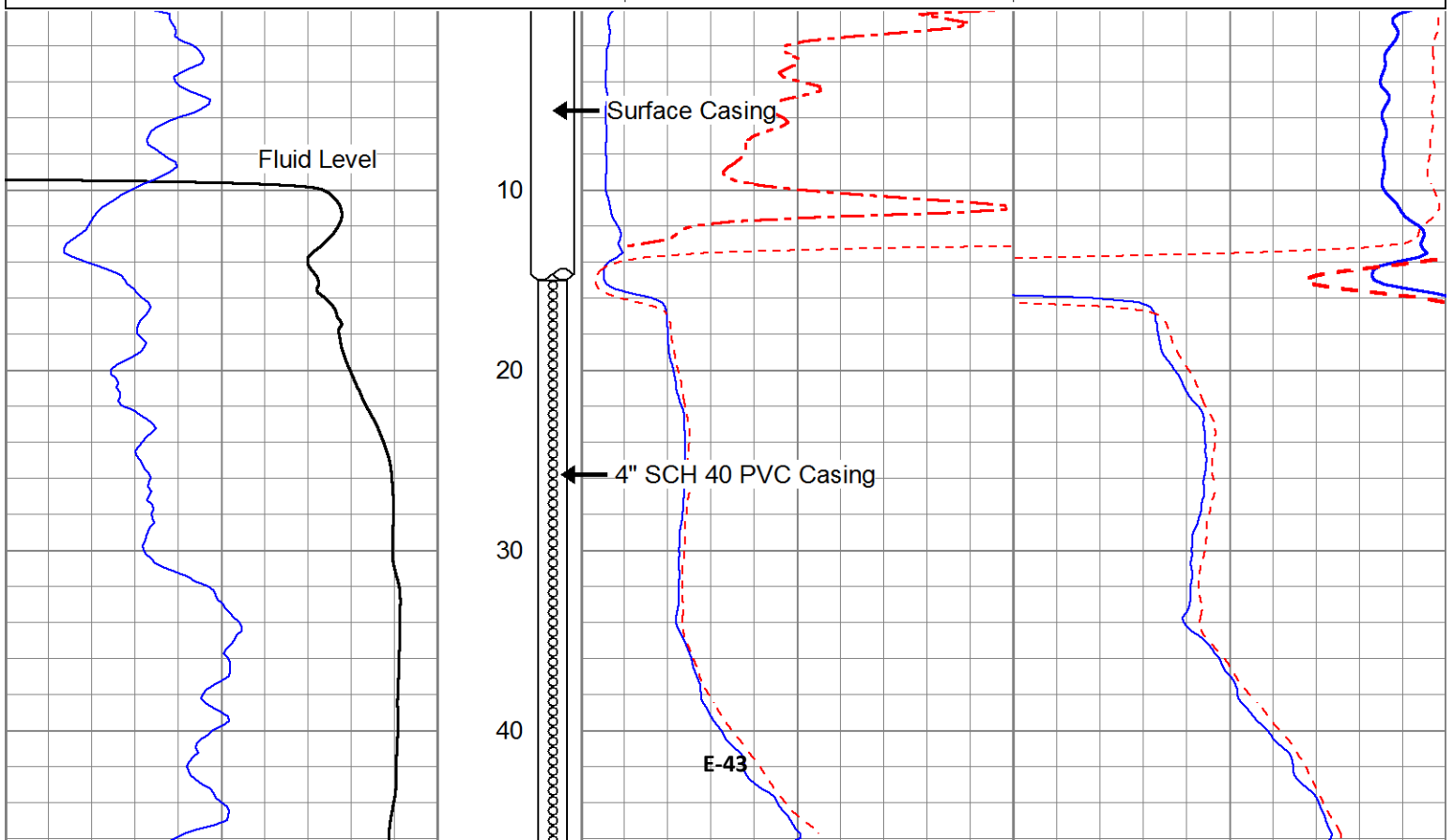
Calibrator Value: 162.0 GAPI

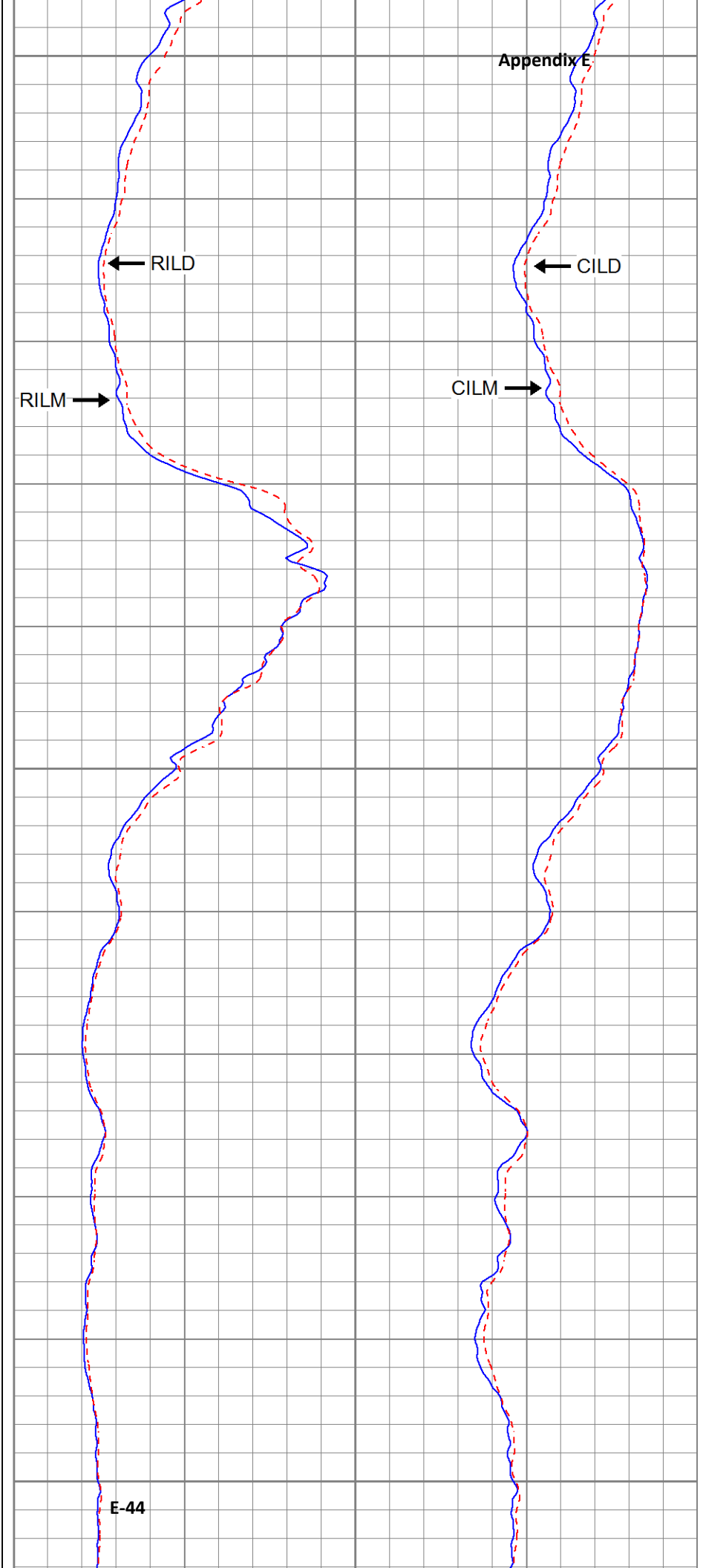
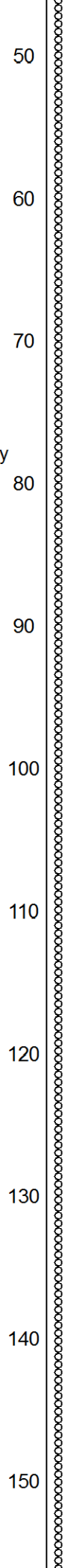
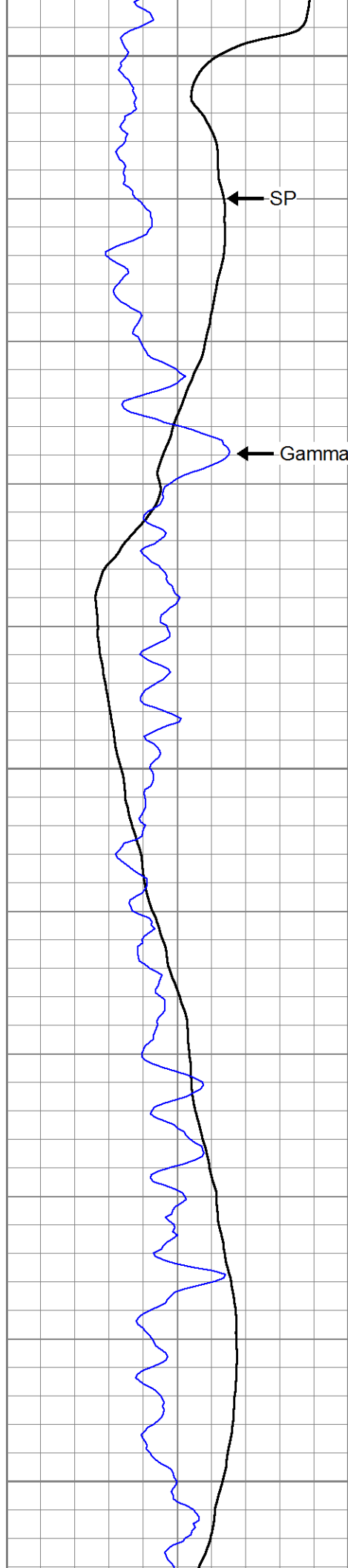
Background Reading: 46.1 cps
 Calibrator Reading: 180.8 cps

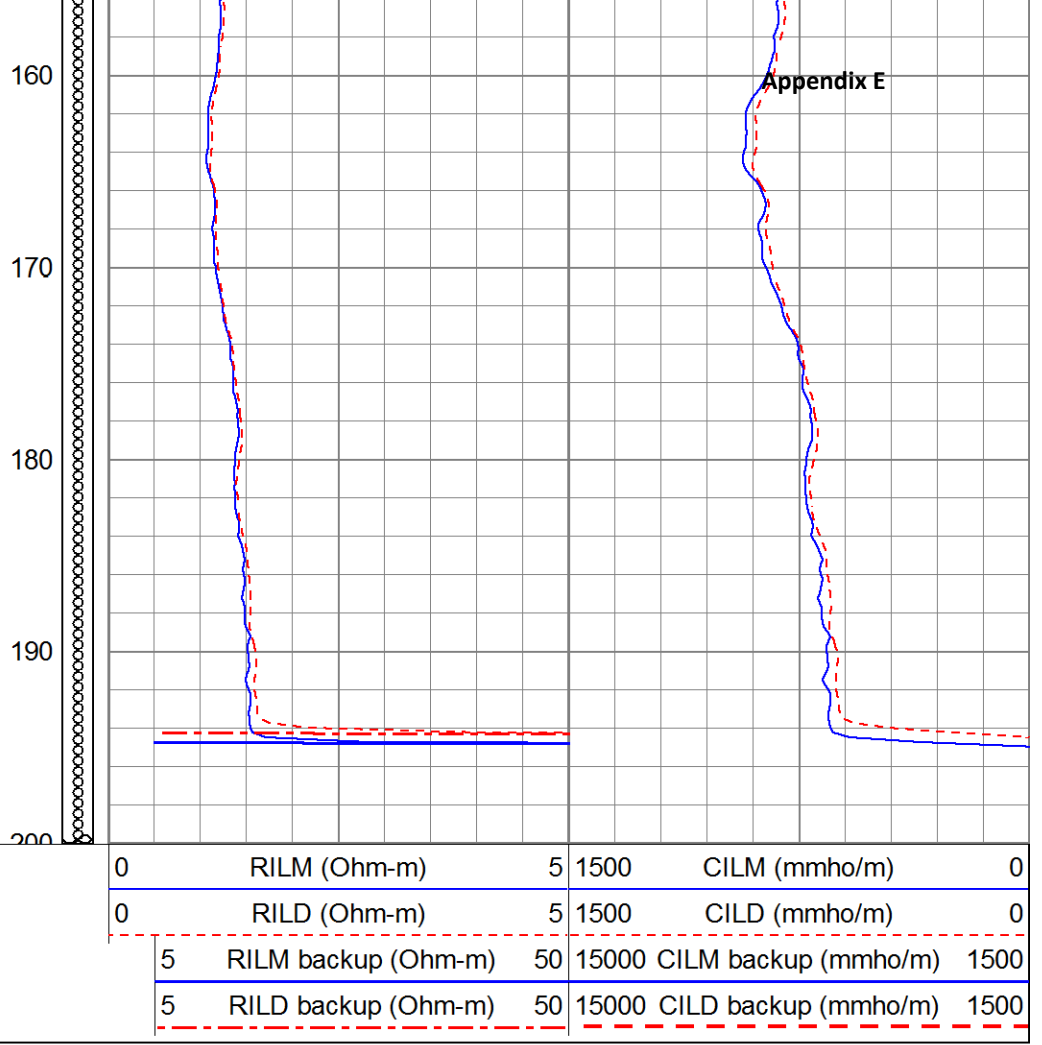
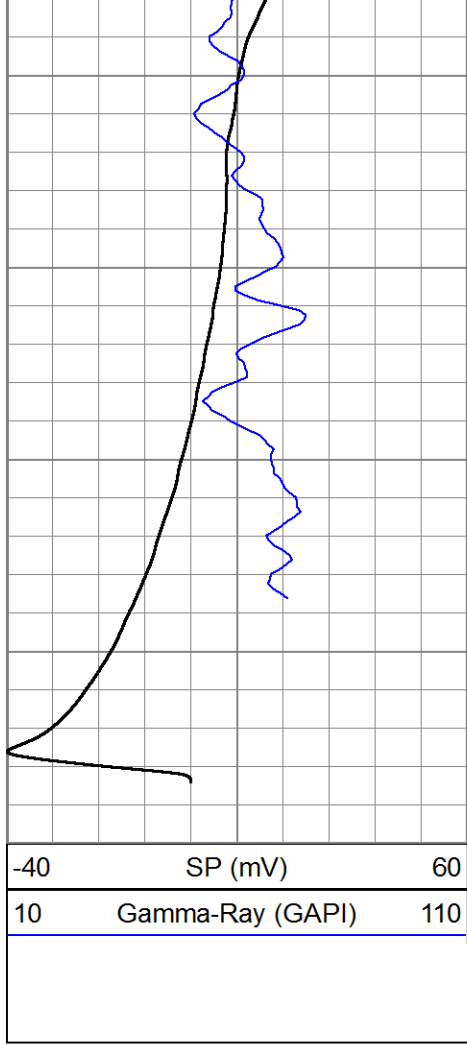
Sensitivity: 1.2020 GAPI/cps

Database File 17787.db
 Dataset Pathname dil2
 Presentation Format dil_ps
 Dataset Creation Wed Nov 20 15:33:46 2013
 Charted by Depth in Feet scaled 1:120

-40	SP (mV)	60	0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
10	Gamma-Ray (GAPI)	110	0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
			5	RILM backup (Ohm-m)	50	15000	CILM backup (mmho/m)	1500
			5	RILD backup (Ohm-m)	50	15000	CILD backup (mmho/m)	1500







DUAL INDUCTION GAMMA-RAY

Job No. 17689	Company	CASCADE DRILLING, INC.		
	Well	PR-1		
File No.	Field	MOSS LANDING		
	County	MONTEREY	State	CA

Location POTRERO RD GPS: N36o 47.439' W121o 47.509'	Other Services: TEMPERATURE FLUID RESISTIVITY
---	---

Permanent Datum	G.L.	Elevation	Elevation
Log Measured From	G.L.	0'	above perm. datum
Drilling Measured From	G.L.		K.B. D.F. G.L.

Date	9-23-2013
Run Number	ONE
Depth Driller	200'
Depth Logger	200'
Bottom Logged Interval	200'
Top Log Interval	0'
Open Hole Size	8"
Type Fluid	N/A
Density / Viscosity	N/A
Fluid Level	N/A
Bentonite Seal	N/A
Time Well Ready	10:15
Time Logger on Bottom	10:30
Equipment Number	PS-3
Location	LA
Recorded By	WATKINS
Witnessed By	B. VILLALOBOS

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	8"	0'	200'				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9"	N/A	0'	10'
Prot. String	4"	N/A	0'	200'
Production String				
Liner				E-46

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Comments

0.010" SLOT FROM 10-180' BGS

Calibration Report

Database File 17689.db
 Dataset Pathname dil
 Dataset Creation Mon Sep 23 10:40:26 2013

Dual Induction Calibration Report

Serial-Model:
Surface Cal Performed:

0001-ALT

Appendix E

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	1407.490	3493.640	cps	0.000	612.000	mmho/m	0.293	-412.905
Medium	1908.120	14487.900	cps	0.000	1960.000	mmho/m	0.156	-297.296

Gamma Ray Calibration Report

Serial Number: PS_1
 Tool Model: 01
 Performed: Wed Aug 31 18:22:13 2011

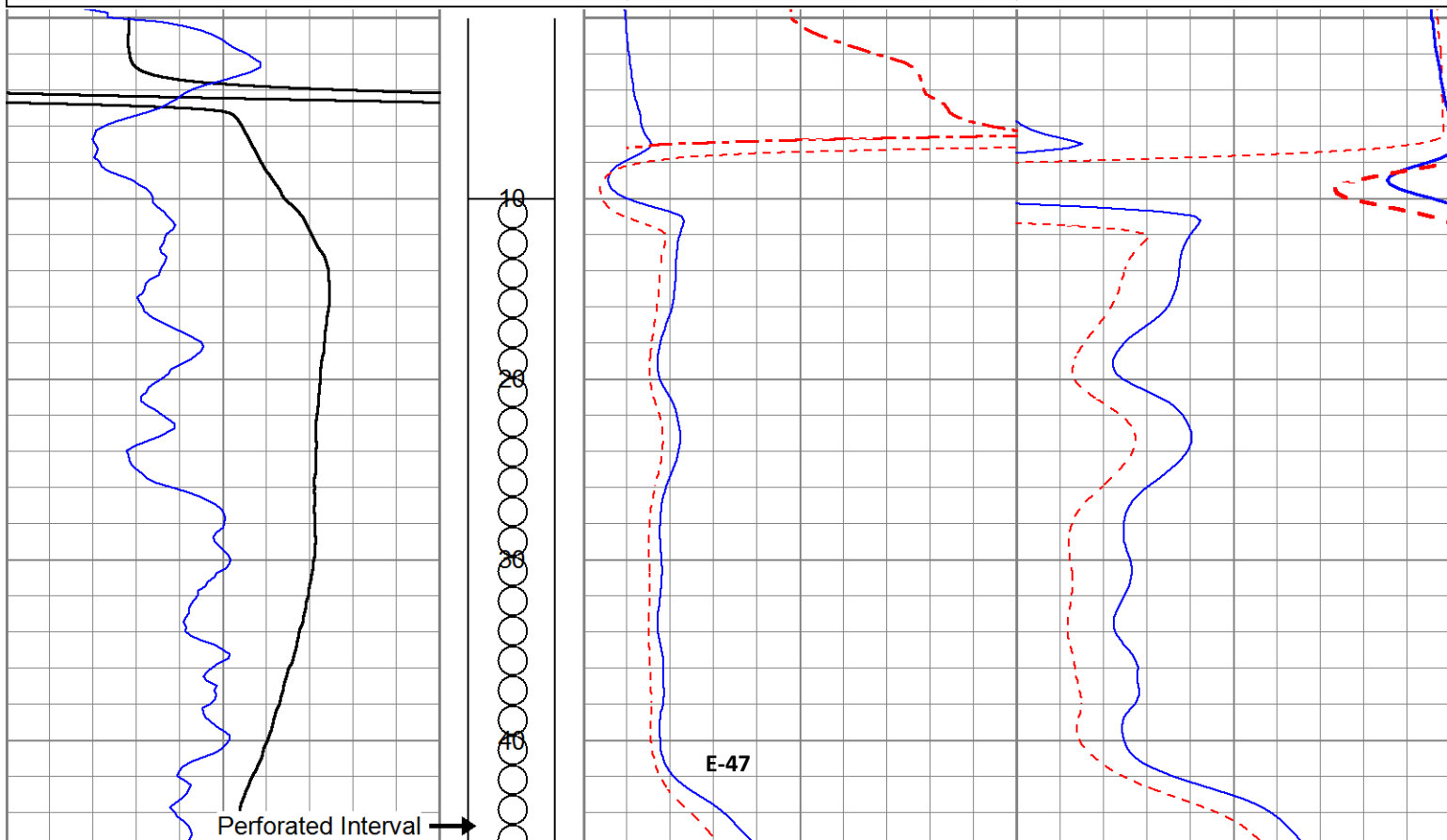
Calibrator Value: 162.0 GAPI

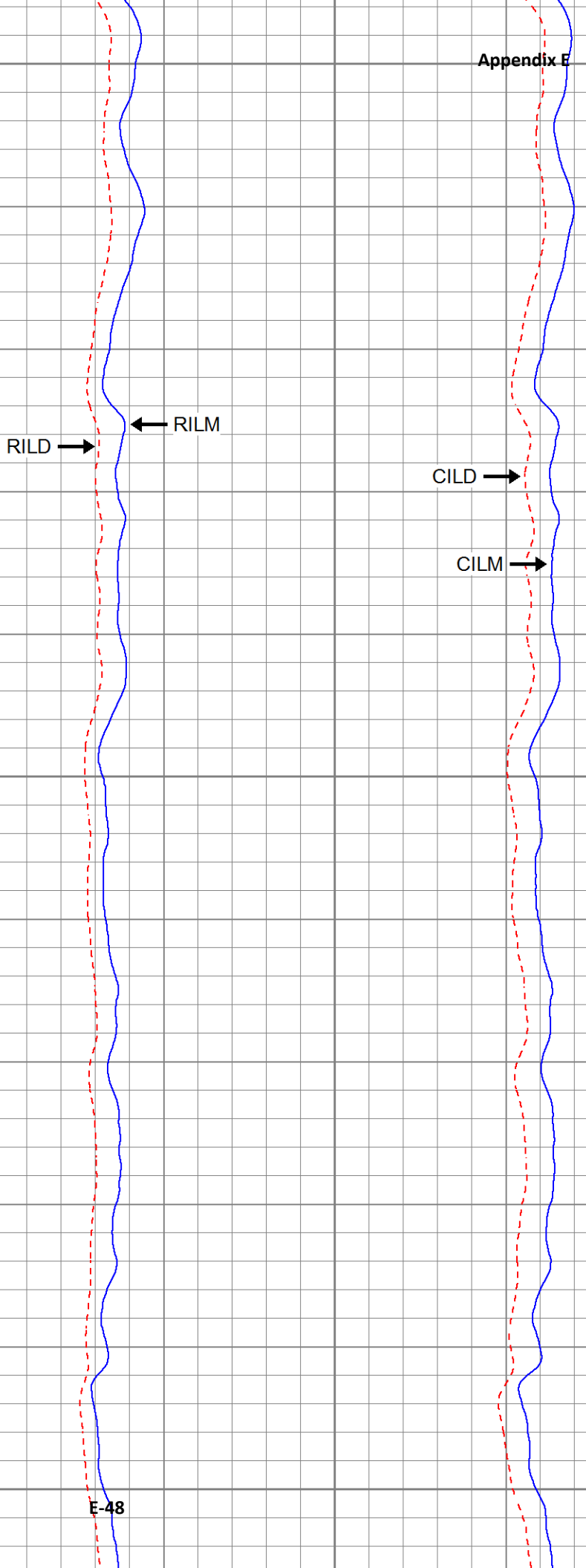
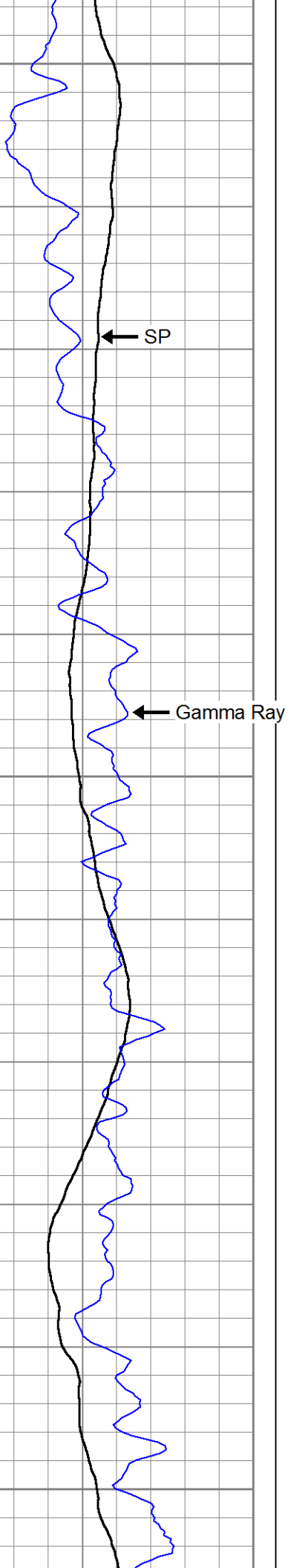
Background Reading: 46.1 cps
 Calibrator Reading: 180.8 cps

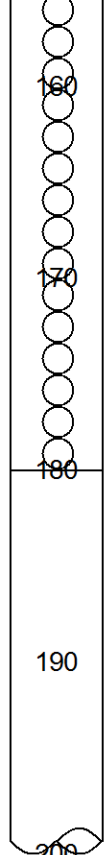
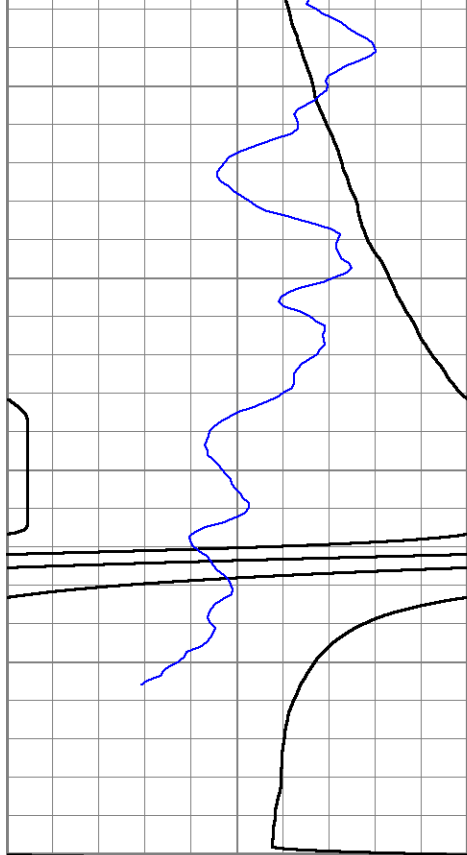
Sensitivity: 1.2020 GAPI/cps

Database File 17689.db
 Dataset Pathname dil
 Presentation Format dil_ps
 Dataset Creation Mon Sep 23 10:40:26 2013
 Charted by Depth in Feet scaled 1:120

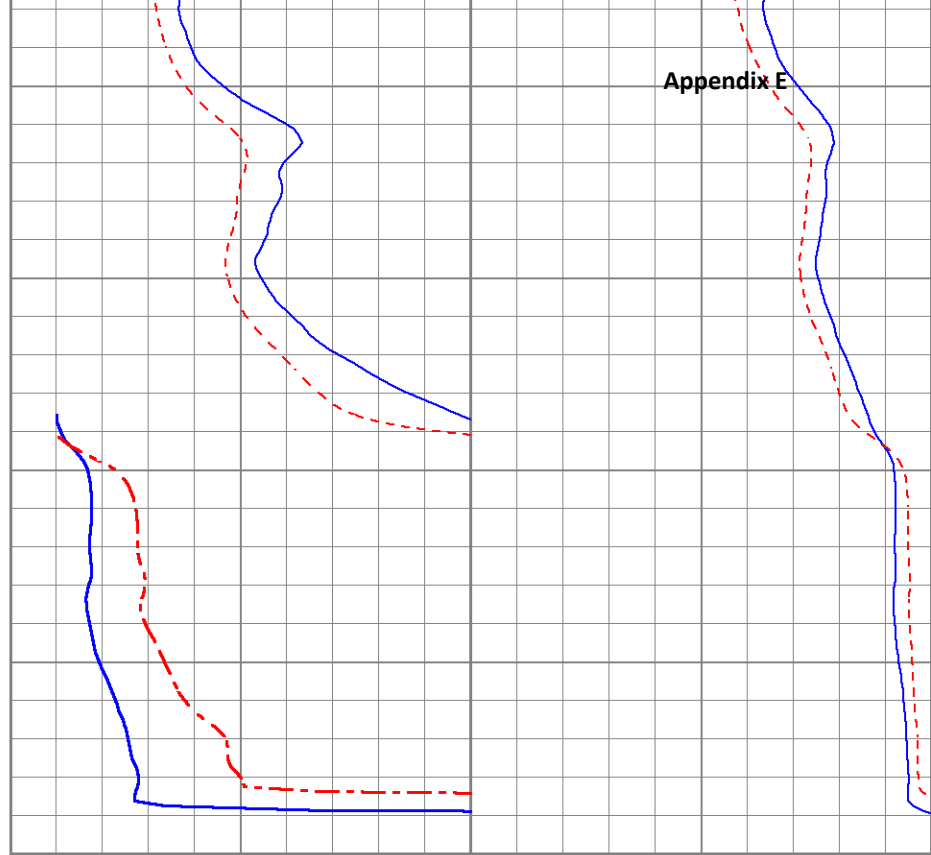
100	SP (mV)	200	0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
10	Gamma Ray (GAPI)	110	0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0
			5	RILM backup (Ohm-m)	50	15000	CILM backup (mmho/m)	1500
			5	RILD backup (Ohm-m)	50	15000	CILD backup (mmho/m)	1500







100	SP (mV)	200
10	Gamma Ray (GAPI)	110



0	RILM (Ohm-m)	5	1500	CILM (mmho/m)	0
0	RILD (Ohm-m)	5	1500	CILD (mmho/m)	0

5	RILM backup (Ohm-m)	50	15000	CILM backup (mmho/m)	1500
5	RILD backup (Ohm-m)	50	15000	CILD backup (mmho/m)	1500

APPENDIX F
Isolated Aquifer Zones Construction Forms
And Well Sampling Data Forms



APPENDIX F:
ISOLATED AQUIFER ZONES CONSTRUCTION
FORMS AND WELL SAMPLING DATA FORMS

CONTENTS

Description	Page
<i>Borehole CX-B1</i>	<i>F-1</i>
<i>Borehole CX-B2</i>	<i>F-19</i>
<i>Borehole CX-B4</i>	<i>F-28</i>
<i>Borehole MDW-1</i>	<i>F-44</i>
<i>Borehole ML-1</i>	<i>F-58</i>
<i>Borehole ML-2</i>	<i>F-61</i>
<i>Borehole ML-3</i>	<i>F-69</i>
<i>Borehole ML-4</i>	<i>F-76</i>
<i>Borehole ML-6</i>	<i>F-82</i>
<i>Borehole PR-1</i>	<i>F-87</i>

Zone # | As-Built

Zone No. 1
274 to 284 ft bgs

**ISOLATED AQUIFER
 ZONE CONSTRUCTION**

8" sonic casing to 263 ft bgs.
 Open annulus above upper
 bentonite seal.

264 ft bgs

5 ft

269 ft bgs

5 ft

274 ft bgs

10 -ft Perforated Tool

(0.050" slot)
 4" PVC

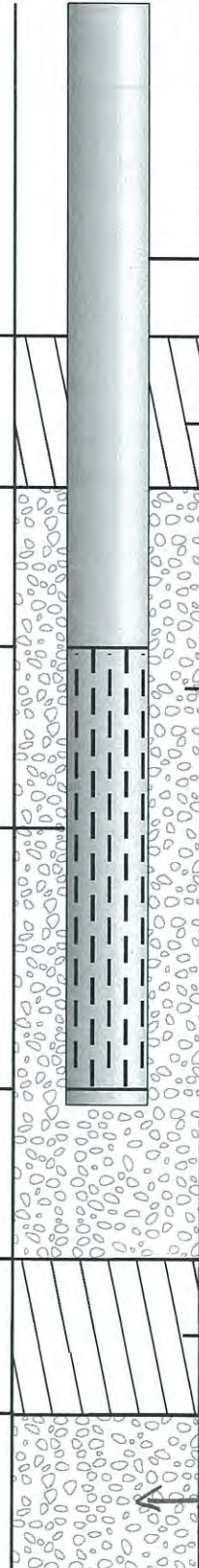
284 ft bgs

5 ft

289 ft bgs

5.5 ft

294.5 ft bgs



4 -in Diameter
~~Drill Pipe~~
 PVC

5 -ft Upper ^{3 bags}
 Bentonite Seal
 MiSWACO Kwik-Plug
 Medium Bentonite
 Chips (3/8")

Gravel Pack (CEMEX
 Monterey #3)
 15 bags

8 -in Diameter
 Pilot Borehole

5.5 -ft Lower
 Bentonite Seal
 (3 1/4 bags)

CEMEX Monterey #3 (3 bags)

301 ft bgs (b.h. T.D.)

GEOSCIENCE

GEOSCIENCE Support Services, Incorporated
 P.O. Box 220, Claremont, CA 91711
 Tel: (909) 451-6650 Fax: (909) 451-6638
 www.gssiwater.com

Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole CX-B1WQ

Date: 2-17-14 / Mon

Zone# 2 As Built

Zone No. 2

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

237 to 247 ft bgs

8" Sonic casing to 224 ft bgs.
Open annulus above
upper bentonite seal

226 ft bgs

4 -in Diameter
~~Drill~~ Pipe
PVC

5 ft

231 ft bgs

5 -ft Upper
Bentonite Seal

6 ft

237 ft bgs

M: SWACO Kwik-Plug
Medium Bentonite
Chips (3/8") 13/4 bags

Gravel Pack
CEMEX
Monterey #3
(10 bags)

10 -ft Perforated Tool
(0.050" Slot)
4" PVC

8 -in Diameter
Pilot Borehole

247 ft bgs
246.5 ft bgs actual

5 ft

252 ft bgs

5 ft

257 ft bgs

5 -ft Lower
Bentonite Seal
(4 bags)

CEMEX Monterey #3
273 - 257 ft bgs

273
ft bgs

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GEOSCIENCE Support Services, Incorporated
P.O. Box 220, Claremont, CA 91711
Tel: (909) 451-6650 Fax: (909) 451-6638
www.gssiwater.com

Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole CX-B1WQ

Date: 2-19-14 / Wed

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

Zone #3 As Built

Zone No. 3

182 to 192 ft bgs

161
8" sonic casing to ~~165~~ ft bgs
Open annulus above
upper bentonite seal.

168 ft bgs

7 ft

175 ft bgs

7 ft

182 ft bgs

10 -ft Perforated Tool
(4" PVC screen
w/ 0.050" slot)

192 ft bgs

5 ft

197 ft bgs

5 ft

202 ft bgs

247
ft bgs

4 -in Diameter
Drill Pipe
PVC

7 -ft Upper
Bentonite Seal
Mi SWACO Kwik-Plug
Medium Bentonite
Chips (3/8")
(2 1/2 bags)

Gravel Pack CEMEX
Monterey #3
Sand
(13 bags)

8 -in Diameter
Pilot Borehole
Sonic

5 -ft Lower
Bentonite Seal
(2 1/2 bags)

Backfill w/ CEMEX
Monterey #3 sand
(35 bags)

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P.O. Box 220, Claremont, CA 91711
Tel: (909) 451-6650 Fax: (909) 451-6638
www.gssiwater.com

Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole CX-B1WQ

Date: 2-20-14 / Thu

Zone #4 As Built

Zone No. 4

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

134 to 144 ft bgs

8" Sonic casing to 122 ft bgs
Open annulus above
upper bentonite seal.

124 ft bgs

5 ft

129 ft bgs

5 ft

134 ft bgs

10 -ft Perforated Tool

(4" PVC Screen
w/ 0.050" slot)

144 ft bgs

5 ft

149 ft bgs

5 ft

154 ft bgs

4 -in Diameter
Drill Pipe
PVC

5 -ft Upper
Bentonite Seal

Mi SWACO Kwik-Plug
Medium Bentonite
Chips (3/8") (2 bags)

Gravel Pack **CEMEX
Monterey #3**
(10 bags)

8 -in Diameter
Pilot Borehole
Sonic

5 -ft Lower
Bentonite Seal
(2 1/2 bags)

Backfill w/ #2/12 sand
(46 bags) & Monterey #3
(3 bags)

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P.O. Box 220, Claremont, CA 91711
Tel: (909) 451-6650 Fax: (909) 451-6638
www.gsswater.com

Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole α-B1WQ

Date: 2-22-14/Sat

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

Zone #5 As Built

Zone No. 5

84 to 94 ft bgs

8" Sonic casing to 73 ft bgs.
Open annulus above upper
bentonite seal.

73 ft bgs

79 ft bgs

84 ft bgs

10 -ft Perforated Tool

94 ft bgs

99 ft bgs

104 ft bgs

6 ft

5 ft

5 ft

5 ft

4 -in Diameter
~~Drill~~ Pipe
PVC

6 -ft Upper
Bentonite Seal
MISWACO Kwik-Plug
medium bentonite
chips (3/8") (2 bags)

Gravel Pack CEMEX
Monterey #3
(13 bags)

8 -in Diameter
~~Plot~~ Borehole
sonic

5 -ft Lower
Bentonite Seal

Backfill w/ # 2/12 &
Monterey #3
17 bags
13 bags

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Tel: (909) 451-6650 Fax: (909) 451-6638
www.gssiwater.com

Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole CX-B1WQ

Date: 2-23-14 / Sun

Zone #6 As Built

Zone No. 6

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

9" Sonic casing to 34 ft bgs
Open annulus above upper
bentonite seal.

51 to 61 ft bgs

38.5 ft bgs

4 -in Diameter
Drill Pipe

45.5 ft bgs

7 -ft Upper
Bentonite Seal

51 ft bgs

MISWACO Kwik-Plug
medium bentonite
chips (3/8") (3 bags)

10 -ft Perforated Tool

Gravel Pack CEMEX
Monterey #3
(13 bags)

(4" PVC Screen
w/ 0.050" slots)

8 -in Diameter
Pilot Borehole
Sonic

61 ft bgs

65.5 ft bgs

71 ft bgs

5.5 -ft Lower
Bentonite Seal
(3 bags)

Backfill w/ Monterey
#3 (17 bags)

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P.O. Box 220, Claremont, CA 91711
Tel: (909) 451-6650 Fax: (909) 451-6638
www.gsswater.com

Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole CX-B1WQ

Date: 2-24-14/Mon

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 P.O. Box 220, Claremont, CA 91711
 Tel: (909) 451-6650 Fax: (909) 451-6638
 www.gssiwater.com

**CONFIDENTIAL
 DRAFT**

Subject to Revision

**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1 W.L.'s
 Logged By: N. Reynolds (GSSI) & Cascade Drilling
 Test Date: 2-17-14 / Mon
 Screened Interval: 274-284 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 212 ft bgs 0.68 Constant

Client: RBF/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: CX-B1WQ
 Sonic Casing Dia: 8 in Sonic Casing Depth: 263 ft bgs
 Static WL: 21.0 ft brp
 RP: 8.0 ftags (Top of 8" casing)

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
16:22:14	0	21.0	0	64079.5	Pump on ~7.1 gpm.								
16:25	3	57.0	36.0	↑ Q to 11.5 gpm									Very turbid
16:30	8	72.3	51.3	64143.4	17.5	18.9	0.6	14000	12693	10111.6	7.13	-131.1	turbid
16:36	14	67.4	46.4		16:36:30 ↑ Q to ~19.1 gpm, Turb improving same.								
16:40	18	↑ Q slightly.		to 19.6 gpm									
16:43	21	40.0	69.0	64338.7	19.6	19.5	0.8	36690	32843	24996.8	6.66	-109.6	"over range"
16:49	27	88.7	67.7	64457.3	19.8	19.4	0.7	37156	33211	25248.8	6.62	-108.7	529
16:53:35	31	pump off.		64546.0									water is aerated.
				Total Volume pumped today = 466.5 gallons.									

Stabilization Criteria:

- 3 to 5 minute recordings with 3 consecutive readings within:
 - pH: +/- 0.1 unit
 - Cond: +/- 3%
 - ORP: +/- 10 mV
 - Turb: +/- 10%
 - DO: +/- 10%
 - Desired Flow Rate: 100 to 500 mL/min

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 P.O. Box 220, Claremont, CA 91711
 Tel: (909) 451-6650 Fax: (909) 451-6638
 www.gssiwater.com

**CONFIDENTIAL
 DRAFT**

Subject to Revision

**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1 W.L.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: CX-B1WQ

Sonic Casing Dia: 8 in Sonic Casing Depth: 263 ft bgs

Static WL: 34.0 ft brp

RP: 8.0 ftags (top of 8" casing)

W.L.'s taken w/
 an electronic w.l.
 indicator.

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 2-18-14 / Tue

Screened Interval: 274-284 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 212 ft bgs 0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
08:01:02	0	34.0	0	64545.1	Pump on @ 31.4 gpm								
08:03	2	88.6	54.6	↓ Q to	21.5 gpm								
08:06	5	84.4	50.4										
08:27	26	85.0	51.0	65128.5	21.7								6.52
08:31:41	~31			↑ Q to ~	38.5 gpm								
08:36	35	119.5	85.5		38.5	08:37	↑ Q to	39.8 gpm					
08:41	40	119.5	85.5	65571.0	40.2								105
09:20	79	114.6	80.6	67147.8	40.4	19.0	2.5	36509	32312	24820	6.51	96.1	11.7
09:30	89	114.9	80.9	67553.5	40.6	19.0	1.0	36353	32175	24718	6.56	57.6	9.04
09:40	99	114.7	80.7	67959.8	40.6	19.0	1.0	36524	32331	24840.4	6.55	48.6	4.40
09:50	109	114.6	80.6	68365.5	40.6	19.0	1.0	36505	32317	24826.8	6.55	47.6	4.08
10:00	119	114.8	80.8	68771.4	40.6	19.0	1.0	36488	32336	24719.6	6.55	49.0	3.43
10:10	129	114.5	80.5	69177.0	40.6	19.0	1.0	36512	32357	24820.0	6.55	50.6	2.82
10:20	139	115.0	81.0	69583.0	40.6	19.0	1.0	36535	32367	24847.2	6.55	51.7	1.98
10:30	149	115.2	81.2	69990.6	40.8	19.0	1.0	36527	32377	24833.6	6.55	53.8	3.36
10:40	159	115.1	81.1	70398.1	40.8	19.0	1.0	36540	32335	24847.2	6.55	54.6	2.23
10:50	169	115.2	81.2	70805.6	40.8	19.0	1.0	36553	32365	24854	6.55	55.4	0.92
11:00	179	115.17	81.17	71213.3	40.8	19.0	1.0	36564	32364	24860.8	6.54	56.4	0.94
11:10	189	115.1	81.1	71621.8	40.9	19.0	1.0	36570	32374	24867.6	6.54	57.3	0.88
11:20	199	114.95	80.95	72029.2	40.7	19.0	1.0	36567	32379	24867.6	6.54	58.1	0.89

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1548 mL/min

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Zone No. 1 W.L.'s
Logged By: N. Reynolds (GSSI) & Cascade Drilling
Test Date: 2-18-14 Tue
Screened Interval: 274-284 ft bgs
Reference Point Elevation: _____ ft amsl
Pump Depth: 212 ft bgs 0.68 constant

Client: RBF/MPWSP - Exploratory Borehole Drilling
Borehole Name/Number: CX-B1WQ
Sonic Casing Dia: 8 in Sonic Casing Depth: 263 ft bgs
Static WL: 34.0 ft brp
RP: 8.0 flags

Time	Time Step (min)	^{34.0} Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)	
11:30	209	115.3	81.3	72436.6	40.7	19.0	1.0	36566	32377	24867.6	6.54	58.6	0.93	
11:40	219	114.9	80.9	72844.4	40.8	19.0	1.0	36581	32394	24874.4	6.54	59.2	1.49	
11:50	229	114.8	80.8	73251.8	40.7	18.9	1.0	36581	32350	24874.4	6.54	59.9	1.20	
12:00	239	115.1	81.1	73659.1	40.7	18.9	1.0	36608	32359	24888.0	6.54	60.5	1.16	
12:10	249	115.0	81.0	74066.2	40.7	18.9	1.0	36601	32361	24888.0	6.54	61.1	0.57	
12:15	Begin	collecting zone #1 WQ samples for lab analysis.												
12:39	278	114.72	80.72	75248.9	40.8	18.9	1.0	36635	32402	24908.4	6.54	62.2	0.56	
12:42:07	281			75374.2	Pump off.									
		Total volume pumped today =					10,829.1 gallons							
13:35	334	34.2	0.2	W.L. after pulling pump.										

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV
- Turb: +/- 10%
- DO: +/- 10%
- Desired Flow Rate: 100 to 500 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2 W.L.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling W.L.'s taken w/ an electronic W.L. indicator
 Borehole Name/Number: CX-B1WQ
 Sonic Casing Dia: 8 in Sonic Casing Depth: 224 ft bgs
 Static WL: _____ ft brp Note: SWL was 4 ft bgs prior to pumping. Recovered W.L. was not recorded by driller on 2-20-14. est. 6 ft bgs by driller
 RP: 6.0 ft bgs (Top of 8" casing)
 Logged By: N. Reynolds (GSSI) & Cascade Drilling
 Test Date: 2-19-14 / Wed
 Screened Interval: 237-247 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 199 ft bgs to Pump intake 0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
10:35:13	0			75374.1	Pump on @ 27 gpm. ↓ Q @ 10:36:30 to 22 gpm ↓ Q @ 10:38 to 13								
10:40	5	147.63			13.0								
10:45	10	122.3		75520.7	~10.3								turbid
10:55	20	108.6		75622.2	10.2								"over range"
11:10	35	108.82		75778.8	10.4								530
11:25	50	108.37		75936.1	10.5								196
11:35	60	110.0		76042.4	10.6	18.9	1.1	21571	19051	14681.2	6.71	-13.9	150
11:45	70	110.6		76150.7	10.8	18.9	1.1	21776	19254	14817.2	6.77	-54.6	81.4
11:55	80	110.4		76259.0	10.8	18.9	1.1	22069	19503	15014.4	6.77	-58.8	53.6
12:05	90	110.3		76367.2	10.8	18.8	1.2	22241	19623	15130.0	6.78	-59.8	52.9
12:16	101	109.82		76486.4	10.8	18.9	1.2	22432	19803	15252.4	6.77	-58.4	45.8
12:25	110	109.47		76583.8	10.8	18.8	1.2	22544	19879	15327.2	6.77	-56.8	31.2
12:35	120	109.6		76692.2	10.8	18.8	1.2	22658	19973	15415.6	6.77	-54.8	37.2
12:45	130	108.83		76800.6	10.8	18.8	1.2	22769	20069	15483.6	6.77	-52.0	20.9
12:55	140	108.4		76908.3	10.8	18.7	1.2	22840	20121	15531.2	6.77	-49.6	17.9
13:05	150	107.95		77016.0	10.8	18.7	1.2	22922	20184	15585.6	6.77	-46.3	14.4
13:15	160	106.95		77122.6	10.7	18.7	1.2	23007	20261	15640.0	6.77	-43.1	14.9
13:25	170	106.83		77228.9	10.6	18.7	1.2	23068	20308	15687.3	6.77	-40.9	14.9
13:35	180	106.8		77334.7	10.6	18.7	1.2	23143	20374	15742.0	6.76	-38.2	12.9
13:45	190	107.0		77440.8	10.6	18.7	1.2	23210	20429	15789.6	6.76	-36.5	12.8

Total Gallons
 gpm
 884.9
 1318.1
 1641.9

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1471 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2 W.L.'s

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 2-19-14 / Wed

Screened Interval: 237-247 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 199 ft bgs pump intake
0.68 constant

Client: RBF/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: CX-B1WQ
 Sonic Casing Dia: 8 in Sonic Casing Depth: 224 ft bgs
 Static WL: _____ ft brp
 RP: 6.0 ftags

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)	
13:55	200	107.0		77546.8	10.6	18.7	1.2	23243	20447	15810.0	6.76	-33.8	14.7	
14:05	210	106.8		77652.8	10.6	18.7	1.2	23296	20485	15837.2	6.76	-31.6	14.5	
14:15	220	106.6		77759.2	10.6	18.7	1.2	23326	20516	15864.4	6.76	-29.1	13.6	
14:25	230	105.98		77865.7	10.7	18.7	1.2	23382	20555	15898.4	6.76	-26.3	11.6	
14:35	240	106.5		77971.8	10.6	18.7	1.2	23406	20578	15912.0	6.76	-24.6	11.4	
14:45	250	106.6		78078.2	10.6	18.7	1.2	23444	20606	15939.2	6.76	-22.5	10.7	
14:55	260	105.7		78184.5	10.6	18.7	1.2	23466	20631	15952.8	6.76	-20.7	8.56	
15:05	270	106.3		78290.7	10.6	18.7	1.2	23480	20644	15966.4	6.76	-18.8	9.23	
15:15	280	106.1		78397.2	10.7	18.7	1.2	23516	20669	15986.8	6.76	-17.0	13.2	
15:25	290	106.25		78503.6	10.6	18.7	1.2	23547	20700	16007.2	6.76	-15.7	13.1	
15:38	303	106.2		78641.7	10.6	18.7	1.2	23592	20737	16041.2	6.76	-13.4	11.2	
15:41:42	~307	↓ Q to 6.3 gpm												
15:44:24														
15:46:53		↓ Q to 3.3 gpm												
15:52	317	50.3		78727.2	~3.3	18.6	1.1	23639	20744	16075.2	6.77	-21.8	1.32	
16:00	325	39.8		78745.6	2.3	18.6	1.1	23660	20779	16088.8	6.79	-29.1	1.21	
16:05	330	39.88		78756.7	2.2	18.7	1.0	23705	20869	16122.8	6.79	-32.4	1.20	
16:10	Collect	WQ samples for lab analysis. Samples placed on ice.												
16:41	366	38.5		78831.8	2.1	19.0	1.0	23926	21194	16272.4	6.80	-40.1	0.91	
16:46:13	371			78841.2										
				Total Volume pumped = 3,467.1 gallons										

2704.1

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 3 W.L.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: CX-B1WQ

Test Date: 2-21-14 / Fri

Sonic Casing Dia: 8 in Sonic Casing Depth: 161 ft bgs

Screened Interval: 182-192 ft bgs

Static WL: 28.2 ft brp

Reference Point Elevation: _____ ft amsl

RP: 8.67 ftags (top of 8" casing)

Pump Depth: 168 ft bgs 0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Total Vol Pumped
09:47:32	0	28.2	0	78841.1	Pump on ~ 3.1 gpm.									
09:49	1	119.0	90.8	-	↓ Q to 6.4 gpm									
10:00	12	88.6	60.4	78988.1	10.1								52.3	10.1 gpm
10:15	27	91.5	63.3	79140.1	10.1	18.5	0.1	45654	40030	31082.8	6.75	-183.7	20.8	
10:30	42	90.6	62.4	79292.7	10.2	18.5	0.1	46385	40680	31545.2	6.78	-264.8	10.7	
10:45	57	90.0	61.8	79444.0	10.1	18.5	0.1	46650	40865	31728.8	6.77	-284.2	17.6	602.9
11:00	72	89.9	61.7	79594.9	10.1	18.5	0.1	46900	41060	31892.0	6.77	-283.4	8.57	753.8
11:15	87	89.9	61.7	79745.8	10.1	18.3	0.1	46964	40963	31932.8	6.77	-280.7	6.70	904.7
11:30	102	89.9	61.7	79896.6	10.1	18.2	0.1	46992	40928	31953.2	6.77	-277.8	10.0	
11:45	117	89.85	61.65	80047.3	10.0	18.3	0.1	47016	41014	31973.6	6.77	-274.3	6.13	
12:00	132	89.75	61.55	80198.2	10.1	18.3	0.1	47036	40977	31987.2	6.77	-270.3	15.3	
12:15	147	89.80	61.60	80348.8	10.0	18.2	0.1	47051	40969	31994.0	6.77	-266.8	3.82	
12:30	162	89.65	61.45	80499.6	10.1	18.2	0.1	47059	40962	32000.8	6.77	-262.2	7.50	
12:34:38	167				↓ Q to 4.6 gpm									
12:45	177	47.45	19.25	80583.7	3.1	18.4	0.1	47074	41134	32044.4	6.79	-249.7	1.03	
12:55	187	46.5	18.3	80615.4	3.2	18.7	0.1	47103	41447	32028.0	6.79	-251.5	0.32	
13:05	197	46.1	17.9	80646.5	3.1	18.8	0.1	47112	41546	32034.8	6.79	-253.3	0.25	
13:10	Begin	collecting	WQ samples for lab analysis											
13:33	225	44.75	16.55	80730.6	3.0	18.9	0.1	47122	41627	32041.6	6.80	-255.7	0.14	
13:41:20	233			80753.5	Pump off.									

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1221.5 mL/min

14:24 276 31.95 3.75

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 4 W.L.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: CX-B1WQ
 Sonic Casing Dia: 8 in Sonic Casing Depth: 122 ft bgs
 Static WL: 22.9 ft brp *2/23 07:33 recovered W.L. = 21.5 ft bgs*
 RP: 8.0 ftags (Top of 8" casing)
W.L.'s taken using an electronic wt indicator.

Logged By: N. Reynolds (GSSI) & Cascade Drilling
 Test Date: 2-22-14 / Sat
 Screened Interval: 134-144 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 124 ft bgs *0.68 Constant*

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
3/22 10:49:49	0	22.9	0	80753.5	Pump on @ 19.0 gpm								
10:52	2	20.0	97.1		↓ Q to 3.9 gpm								
10:56	6	15.8	72.9		3.9								turbid
11:00	10	82.0	59.1	80839.1	4.0								highly aerated discharge
11:20	30	73.65	50.75	80923.2	4.2								73.6
11:35	45	74.4	51.5	80987.1	4.3	18.2	2.8	38044	33127	25846.8	6.80	-149.9	3.42
11:50	60	74.9	52.0	81052.4	4.4	18.3	3.0	38686	33712	26295.6	6.82	-127.5	1.55
12:05	75	74.8	51.9	81117.8	4.4	18.2	3.3	38950	33868	26479.2	6.82	-113.0	1.65
12:20	90	74.8	51.9	81183.2	4.4	18.2	3.4	39056	33956	26560.8	6.82	-103.3	3.62
12:40	110	74.5	51.6	81271.6	4.4	18.1	3.6	39201	34053	26656.0	6.82	-94.7	10.7
12:55	125	74.6	51.7	81337.2	4.4	18.1	3.7	39344	34192	26751.2	6.81	-84.4	6.83
13:10	140	74.35	51.45	81402.6	4.4	18.2	3.8	39394	34270	26785.2	6.81	-77.5	7.13
13:25	155	74.3	51.4	81468.2	4.4	18.2	3.8	39413	34300	26798.8	6.81	-72.1	10.5
13:40	170	74.3	51.4	81533.8	4.4	18.2	3.7	39432	34276	26798.8	6.81	-66.7	11.6
13:55	185	74.35	51.45	81599.6	4.4	18.1	3.7	39481	34312	26846.2	6.81	-62.0	10.5
13:59:13	189				↓ Q to 2.1 gpm								
14:05	195	55.55	32.65	81630.2	2.1	18.5	3.6	39527	34305	26880.4	6.81	-61.5	5.41
14:20	210	49.3	26.4	81662.3	2.1	18.6	3.6	39542	34731	26887.1	6.82	-58.4	0.18
14:30	220	48.8	25.9	81683.8	2.2	18.7	3.6	39563	34822	26900.8	6.82	-58.0	0.20
14:40	230	48.7	25.8	81705.1	2.1	18.8	3.6	39592	34907	26921.2	6.82	-56.6	0.24

Vol (gal)
 Silty
 turbid
 364.3
 583.7
 714.7

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:
 pH: +/- 0.1 unit
 Cond: +/- 3%
 ORP: +/- 10 mV

Turb: +/- 10%
 DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1062.3 mL/min
 13:59 (↓Q) = 1012.1 mL/min

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Zone No. 4

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: CX-B1WQ

Test Date: 2-22-14 / Sat

Sonic Casing Dia: 8 in Sonic Casing Depth: 122 ft bgs

Screened Interval: 134-144 ft bgs

Static WL: 22.9 ft brp

Reference Point Elevation: _____ ft amsl

RP: 8.0 ftags (top of 8" casing)

Pump Depth: 124 ft bgs *0.68 constant*

2/22

Time	Time Step (min)	Water Level (ft brp)	^{22.9} Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
14:45	235	Begin collecting											
15:13	263	49.7	26.8	81782.0	2.3	18.9	3.6	39597	34967	26928.0	6.82	-55.3	0.39
15:19:23	269												
15:25	275	102.9	80.0	81842.7	10.3	18.4	2.4	35369	30732	23936	6.94	-148.0	overrange
15:29:17	279												
15:33	283	98.6	75.7	81904.3	5.6	17.9	3.6	39539	34214	26894.0	6.81	-68.3	19.4
15:47	297	84.8	61.9	81982.7	5.6	17.8	3.8	39627	34163	26941.6	6.80	-41.4	15.6
15:57	307	84.35	61.45	82039.2	5.7	17.8	3.9	39649	34194	26962.0	6.79	-37.1	1.09
16:07	317	84.2	61.3	82095.7	5.7	17.9	3.9	39641	34252	26955.2	6.79	-33.6	0.75
16:09:16	319	Pump off		82108.7									
				Total Volume pumped = 1355.2 gallons									
07:33		29.5	(21.5 ft bgs)	Recovered water level.									

2/23

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Turb: +/- 10%

Cond: +/- 3%

DO: +/- 10%

ORP: +/- 10 mV

Desired Flow Rate: 100 to 500 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 5 W.L.'s =

Logged By: N. Reynolds (Gsst) & Cascade Drilling

Test Date: 2-23-14 / Sun

Screened Interval: 84-94 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 74 ft bgs 0.68 constant

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: CX-B1WQ

Sonic Casing Dia: 8 in Sonic Casing Depth: 73 ft bgs

Static WL: 26.0 ft brp

RP: 7.0 Stags (top of 8" casing)

W.L.'s taken using an electronic w.l. indicator.

2/23

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
11:58:38	0	26.0	0	82108.7	Pump on @ ~19gpm.			↓ Q to 11.1 gpm	11.1 gpm				
12:01	2	33.8	7.8		11.1					aerated discharge			
12:05	6	33.8	7.8	82187.8	11.2					"			137
12:20	21	33.8	7.8	82355.5	11.2								6.09
12:35	36	33.8	7.8	82523.2	11.2								4.24
12:55	56	34.0	8.0	82748.2	11.3	17.3	3.5	40675	34656	27655.6	7.00	-21.5	3.45
13:10	71	34.05	8.05	82920.2	11.5	17.3	3.6	40881	34862	27805.2	7.04	-57.6	4.56
13:25	86	34.0	8.0	83092.2	11.5	17.3	3.6	41062	35002	27920.8	7.05	-54.5	4.94
13:40	101	34.02	8.02	83264.5	11.5	17.3	3.6	41158	35069	27988.8	7.05	-44.8	4.67
13:55	116	34.1	8.1	83436.8	11.5	17.3	3.6	41219	35124	28029.6	7.05	-34.7	3.76
14:10	131	34.1	8.1	83609.5	11.5	17.3	3.6	41258	35155	28056.8	7.05	-25.0	4.00
14:25	146	34.2	8.2	83782.1	11.5	17.3	3.7	41289	35178	28077.2	7.05	-16.2	4.17
14:40	161	34.1	8.1	83954.9	11.5	17.3	3.6	41305	35193	28090.8	7.05	-9.0	4.39
14:52	173	34.1	8.1	84093.1	11.5	17.2	3.7	41315	35193	28097.6	7.05	-4.4	4.38
14:55	176				↓ Q								
15:02	183	28.27	2.27	84158.2	2.8	17.7	3.5	41317	35647	28097.6	7.06	-7.8	0.16
15:12	193	28.25	2.25	84186.4	2.8	18.3	3.4	41304	36002	28084.0	7.06	-12.3	3.65
15:22	203	28.2	2.2	84214.0	2.8	18.4	3.4	41288	36046	28077.2	7.07	-14.3	9.61
15:32	213	28.2	2.2	84241.6	2.8	18.4	3.4	41270	36070	28063.6	7.07	-15.7	13.5
15:42	223	28.15	2.15	84269.0	2.7	18.4	3.3	41262	36051	28056.8	7.07	-14.4	17.0

Vol Pumped (gal)

639.5

983.5

1846.2

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1219.5 mL/min
 = 1180.2 mL/min (↓ Q @ 14:55)

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 6 W.L.S

Client: RBF/MPWSP - Exploratory Borehole Drilling

W.L.'s taken using an electronic W.L. indicator

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: CX-B1WQ

Test Date: 2-24-14 / Mon

Sonic Casing Dia: 9 in Sonic Casing Depth: 34 ft bgs

Screened Interval: 51-61 ft bgs

Static WL: 25.25 ft brp

Reference Point Elevation: _____ ft amsl

RP: 6.0 ft ays (top of 9" casing)

Pump Depth: 47 ft bgs

0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
14:01:32	0	25.25	0	85016.7	Pump on @ 10.4 gpm								
14:04	2		-		Pump off. PWL reaches pump.								
14:08:20	0			85048.4	Resume pumping @ 5.2 gpm.								
14:10	2	37.6	12.35		5.2								
14:15	7	38.55	13.30	85087.1	5.2				aerated discharge				684
14:30	22	38.9	13.65	85166.0	5.3								151
14:45	37	40.15	14.90	85246.5	5.4	17.7	3.0	32656	28069	22208.8	7.12	-174.7	62.0
15:00	52	40.1	14.85	85330.5	5.6	17.6	3.1	33784	29013	22990.8	7.17	-159.3	13.4
15:15	67	40.25	15.00	85412.2	5.4	17.6	3.2	34309	29483	23330.8	7.18	-142.4	6.29
15:30	82	40.35	15.10	85494.2	5.5	17.6	3.3	34701	29777	23589.2	7.18	-130.1	4.27
15:45	97	40.4	15.15	85576.5	5.5	17.6	3.5	35076	30098	23847.6	7.18	-120.1	3.87
16:00	112	40.4	15.15	85658.6	5.5	17.5	3.6	35234	30194	23963.2	7.18	-113.5	4.26
16:15	127	40.4	15.15	85740.6	5.5	17.5	3.7	35355	30316	24051.6	7.18	-108.0	4.42
16:30	142	40.7	15.45	85823.1	5.5	17.5	3.7	35451	30377	24099.2	7.18	-102.9	5.41
16:45	157	40.8	15.55	85906.7	5.6	17.4	3.8	35658	30507	24242.0	7.17	-98.2	4.47
16:52	164				↓ Q to 4.1 gpm							16:55 →	0.60
17:00	172	36.25	11.0	85978.3	4.1	17.8	3.8	35644	30716	24242.0	7.17	-95.3	0.57
17:10	182	36.35	11.1	86020.7	4.2	17.7	3.8	35703	30750	24282.8	7.17	-93.5	1.34
17:20	192	36.33	11.08	86063.1	4.2	17.7	3.7	35736	30790	24303.2	7.17	-91.3	2.48
17:24:32	197			86081.8	Pump off. Total Volume pumped = 1065.1 gallons								

Vol Pumped (gal)

313.8

559.8
641.9

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

17:30 26.0 ft brp

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1,145.9 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 6 W.L.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: CX-B1WQ

Test Date: 2-25-14/Tue

Sonic Casing Dia: 9 in Sonic Casing Depth: 34 ft bgs

Screened Interval: 51-61 ft bgs

Static WL: 25.9 ft brp

Reference Point Elevation: _____ ft amsl

RP: 6.0 ft ags (top of 9" casing)

Pump Depth: 47 ft bgs

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
07:49:48	0	25.9	0	86081.8	Pump on 9.2 gpm			0752	↓ Q to 4.1 gpm	4.1 gpm	0755	↑ Q to 5.7 gpm	
08:00	10	37.4	11.5	86141.1	5.8				discharge is aerated				22.6
08:15	25	38.5	12.6	86231.7	6.0	17.4	3.3	35755	30568	24303.2	7.17	-59.3	5.09
08:30	40	38.5	12.6	86322.3	6.0	17.5	3.4	35851	30693	24378.0	7.18	-68.6	1.56
08:45	55	38.6	12.7	86413.0	6.0	17.5	3.4	35906	30751	24425.6	7.18	-69.1	0.62
08:55	65	38.65	12.75	86473.5	6.1	17.5	3.4	35926	30762	24439.2	7.18	-68.5	0.34
09:05	75	38.7	12.8	86534.0	6.1	17.5	3.5	35952	30803	24452.8	7.18	-67.3	0.33
09:10	80	Begin collecting WQ samples for lab analysis. samples placed on ice.											
09:31	101	38.8	12.9	86697.4	6.3	17.5	3.8	35999	30861	24493.6	7.18	-63.4	0.25
09:36:56	107	Total volume pumped today = 651.7 gallons											
10:15	145	25.8											

Vol Pumped (gal)

240.5

0.68 constant

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

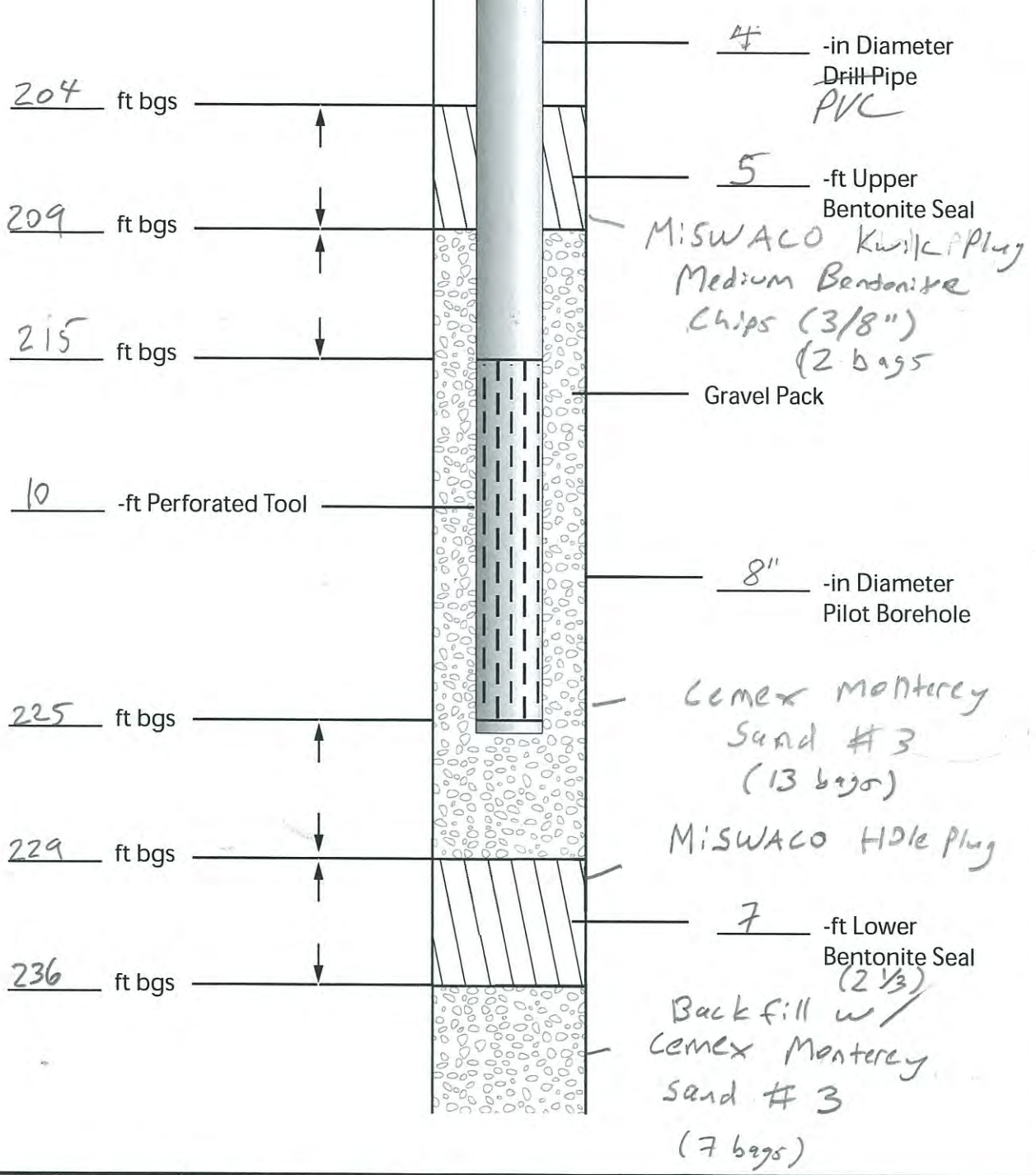
Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1133.8 mL/min

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

Zone No. 1

204 to 236 ft bgs



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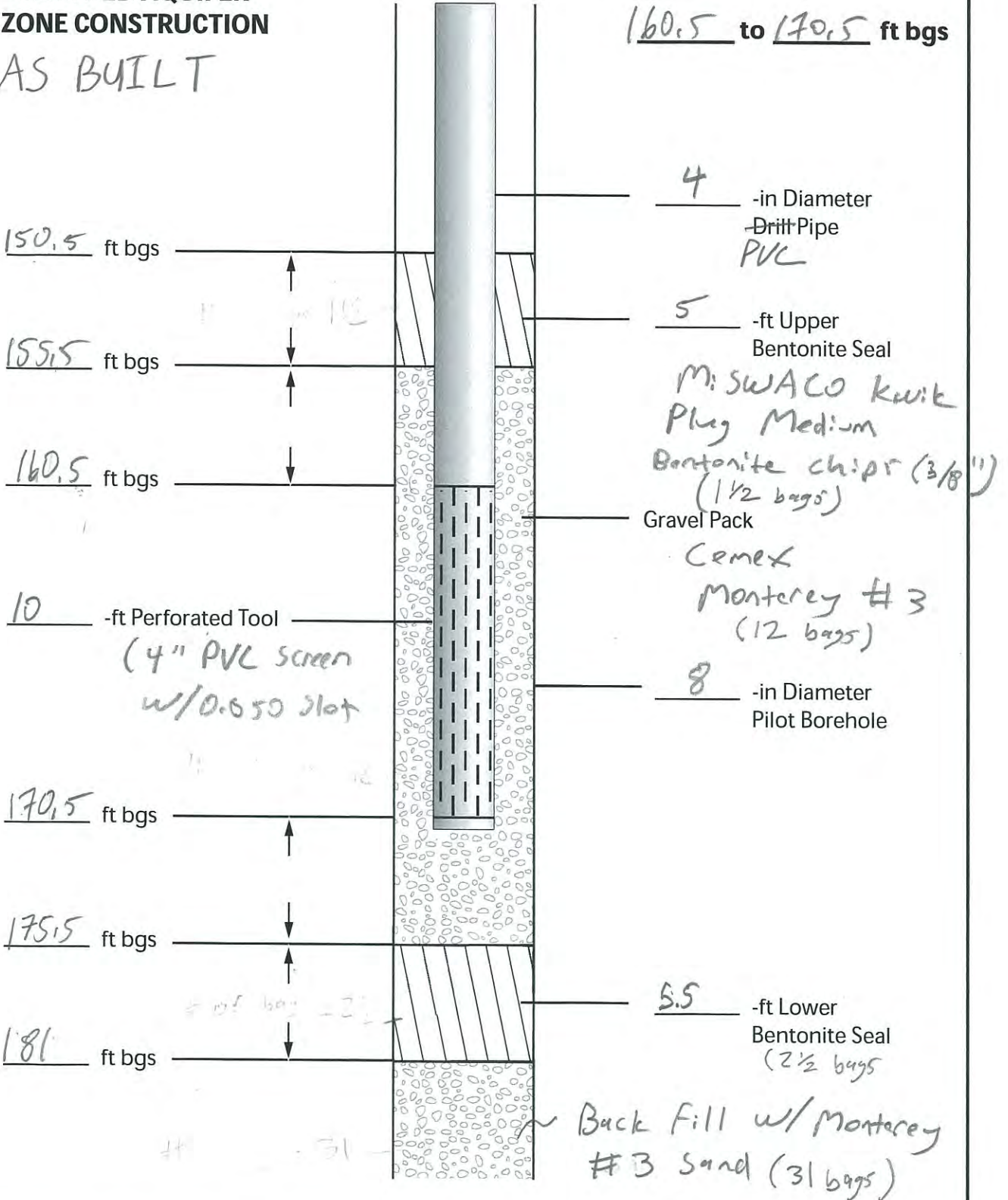
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Client: RBF Consulting Inc.
Well Name/Number: CX-B2WQ
Date: 3/7/14

**ISOLATED AQUIFER
ZONE CONSTRUCTION
AS BUILT**

Zone No. 2

160.5 to 170.5 ft bgs



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Client: RBF Consulting

Well Name/Number: MPWSP Exploratory Borehole CX-B2WQ

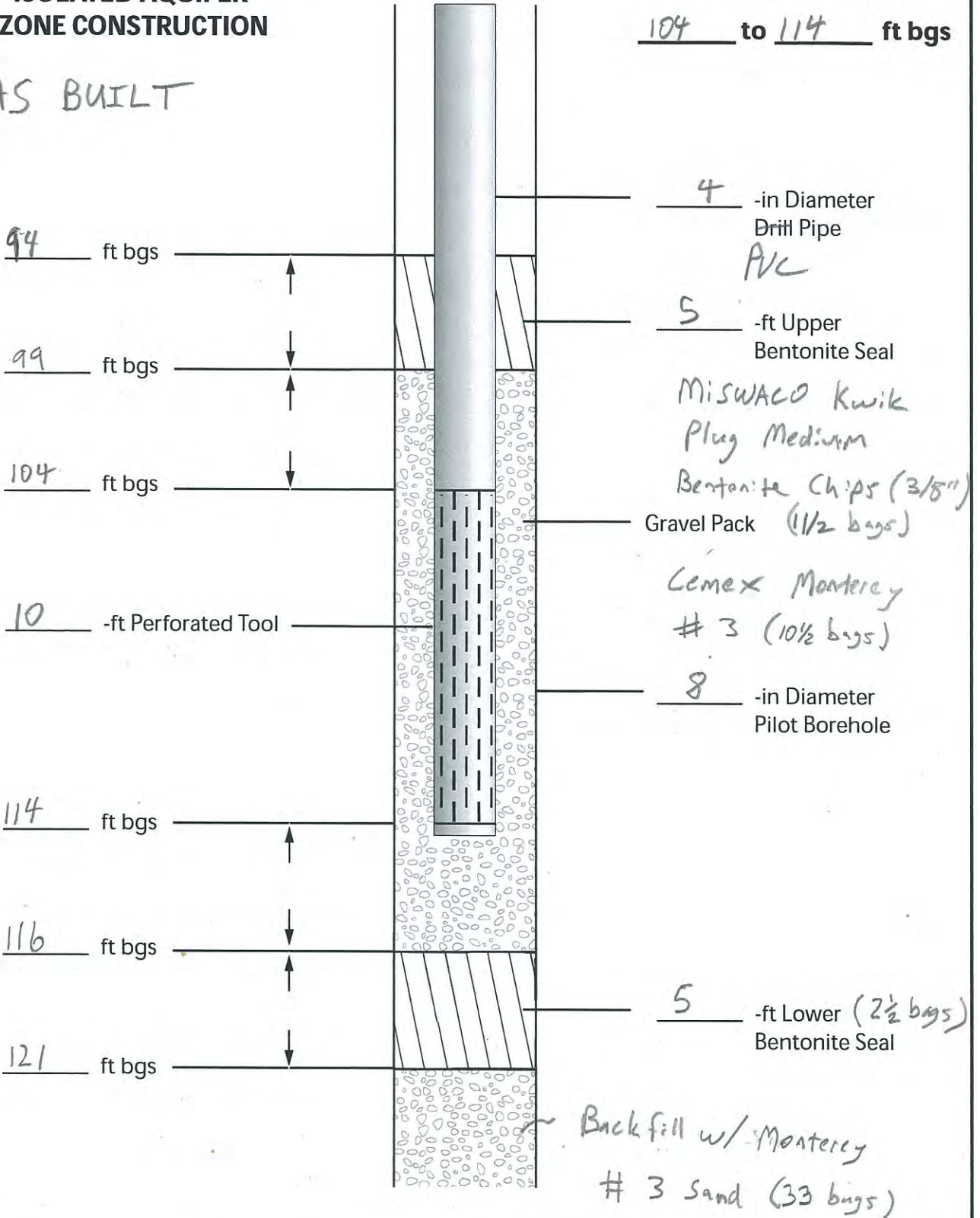
Date: 3/9/14 Sunday

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

Zone No. 3

104 to 114 ft bgs

AS BUILT



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Client: RBF-Consulting Inc

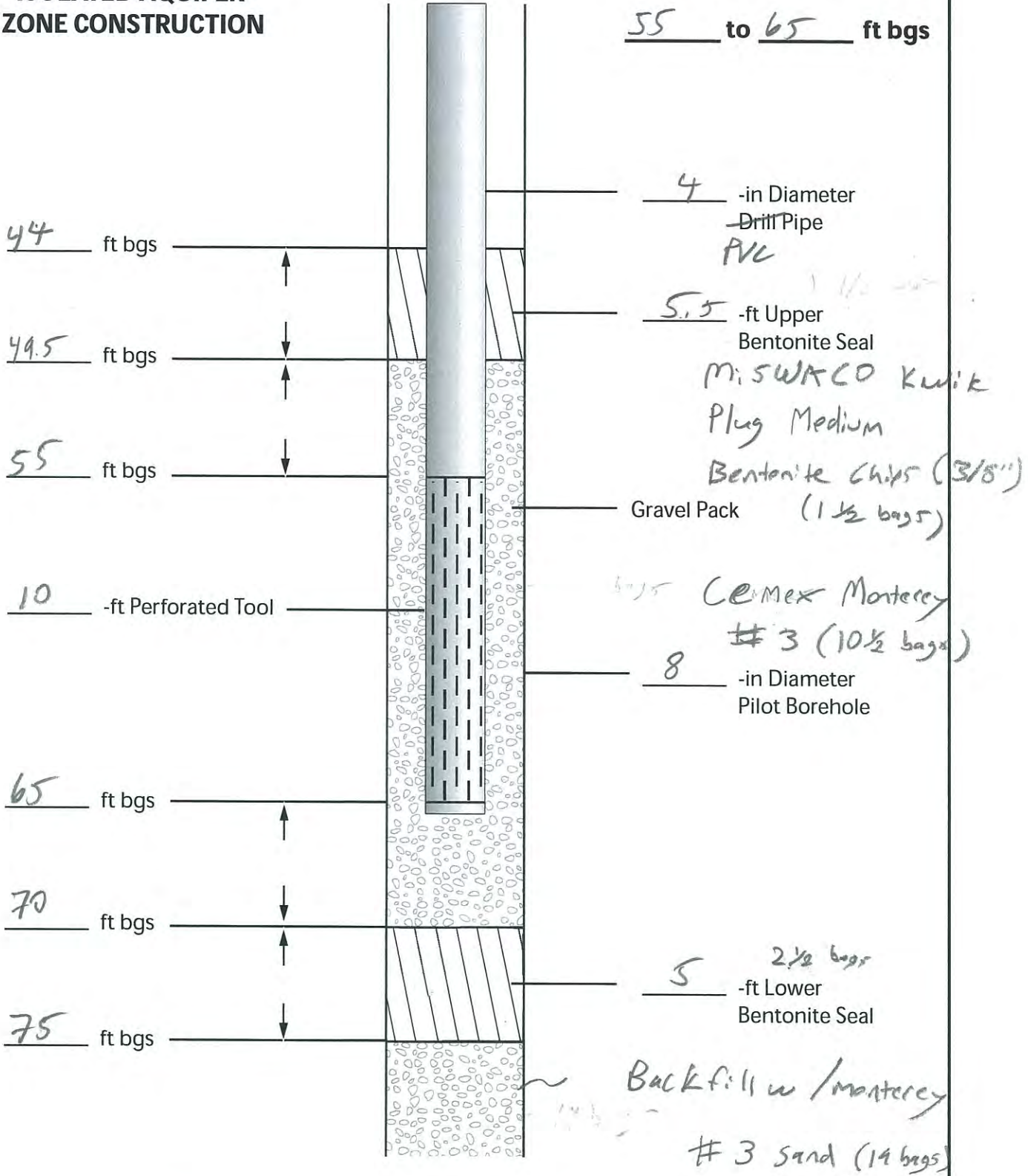
Well Name/Number: MPWSP Exploratory Borehole CX-B2WQ

Date: 3/10/14 Monday

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

Zone No. 4

55 to 65 ft bgs



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Client: RBF-Consulting Inc

Well Name/Number: MPWSP Exploratory Borehole CX-B2WQ

Date: 3/12/14

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: J. Sebda (GSSI) & C. Cordero

Borehole Name/Number: CX-B2WQ

Test Date: 3/8/14 / Saturday

Sonic Casing Dia: 8 in Sonic Casing Depth: 210 ft bgs

Screened Interval: 215-225 ft bgs

Static WL: 36.4 ft brp

Reference Point Elevation: _____ ft amsl

RP: 8 ft

Pump Depth: 197 ft bgs

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal x 10)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0755	0	36.4	0	8678	Pump on	20.75				0.68 constant			
0757	2	46.2	9.8	8679.5	7.5								
0801	6	48.9	12.5	8683	8.75								
0805	10	51.5	15.1	8691.5	21.25								
0825	30	51.7	15.3	8730.5	19.5								
0840	45	51.85	15.45	8760.5	20								24.0
0855	60	51.5	15.1	8790	19.66								
0910	75	52	15.6	8820	20	19.0	2.9	35366	31322	24058	6.68	103.9	3.98
0925	90	52.2	15.8	8849.5	19.67	18.8	1.2	35364	31223	24051.6	6.70	79.2	2.85
0940	105	52.3	15.9	8879.5	20	18.9	0.9	35254	31127	23970	6.71	71.1	2.47
0955	120	52.35	15.95	8909	19.67	18.9	0.9	35159	31057	23908.7	6.71	67.7	1.90
1010	135	43.6	7.2	8927.5	12.33	19.1	0.9	35318	31339	24010	6.72	57.5	1.47
1025	150	43.55	7.15	8941.5	9.33	19.2	0.9	35319	31408	24017	6.72	52.1	1.95
1040	165	43.50	7.10	8956	9.67	19.3	0.9	35311	31455	24010.8	6.72	48.7	0.91
1050	175	43.55	7.15	8966	10	19.2	0.9	35319	31410	24010.8	6.73	45.1	0.98
1100	185	43.50	7.10	8976.5	10.5	19.2	0.9	35342	31380	24030.2	6.74	43.4	1.45
1115	200	43.55	7.15	8990.5	9.33	19.3	0.9	35349	31471	24038.0	6.74	41.6	1.62
1130	215	43.55	7.15	9005.5	10	19.4	0.9	35337	31552	24021.1	6.77	36.0	2.09
1145	230	43.60	7.20	9020.5	10	19.3	0.9	35297	31454	24004	6.83	30.3	3.09
1200	245	43.60	7.20	9034.5	9.33	19.2	0.7	35299	31398	23977.2	6.72	37.6	3.15

QT
 QT

Q↓

Vol (gal)

1570

Stabilization Criteria:

- 3 to 5 minute recordings with 3 consecutive readings within:
 - pH: +/- 0.1 unit
 - Cond: +/- 3%
 - ORP: +/- 10 mV

Flow thru cell = 970 mL/min

- Turb: +/- 10%
 - DO: +/- 10%
- F-23

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ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET

Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: CX-B26WB

Sonic Casing Dia: 8 in Sonic Casing Depth: 210 ft bgs

Static WL: 36.4 ft brp

RP: 8 ft

Logged By: J. Scholer (GSSI) & Cascade - WLS

Test Date: 3/8/14 Saturday

Screened Interval: 215-225 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 197 ft bgs

0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gals)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1215	260	43.55	7.15	9094.5	10	19.2	0.9	35272	31384	23788	6.72	70.1	3.90
1230	275	43.55	7.15	9064.5	10	19.1	0.9	35264	31308	23976.8	6.71	34.3	2.44
1245	290	43.50	7.10	9078.5	9.33	19.2	0.9	35308	31417	24010.0	6.71	41.5	1.89
1300	305	43.50	7.10	9093.5	10	19.2	0.9	35305	31312	24004.0	6.71	43.4	3.6
1315	320	41.30	4.90	9106.5	9	19.2	0.8	35309	31382	24004	6.71	40.8	2.53
1330	350	43.80	7.40	9116.5	6.67	19.3	0.8	35413	31544	24072	6.71	35.4	4.29
1345	365	40.80	4.40	9129.0	8.33	19.1	0.8	35284	31347	23997	6.72	38.2	3.65
1400	380	40.70	4.30	9138.5	6.33	19.3	0.8	35335	31483	4031.2	6.72	32.1	5.43
1415	395	40.65	4.25	9147.5	6	19.3	0.8	35313	31470	24017.6	6.72	30.5	7.45
1430	410	40.85	4.95	9156.5	6	19.3	0.8	35310	31473	24010.8	6.72	28.3	11.0
1445	425	44.75	8.35	9170.9	9.6	17.0	0.8	35250	31202	23970.0	6.71	36.9	5.28
1500	440	44.85	8.44	9188.1	11.47	18.9	0.9	35238	31195	23963.2	6.71	42.5	5.86
1515	455	44.90	8.50	9206.4	12.2	18.8	0.9	35221	31059	23999.6	6.71	49.8	2.39
1530	470	44.90	8.50	9224.6	12.13	18.9	0.9	35212	31087	23992.8	6.71	46.2	1.29
1545	485	44.90	8.50	9242.8	12.13	18.8	0.9	35226	31097	23949.6	6.71	47.8	0.46
1555	495	44.95	8.55	9255.0	12.20	18.8	0.9	35210	31027	23942.8	6.71	48.5	0.69
1605	505	44.95	8.55	9267.1	12.10	18.8	0.9	35191	31029	23936.0	6.71	49.0	0.91
		WB Sampling @ 160				Finished		Sampling	@ 1035				
1638	538	44.90	8.50	9307.5	12.42	18.8	0.9	35152	30943	23902	6.71	49.4	0.90
1645	545	44.90	8.50	9316.0	13.07	18.8	0.9	35143	30951	23895.7	6.71	49.7	0.70

final totalizer = 9319.20 gals

Stabilization Criteria:
 3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2

Logged By: J. Sabolew & Cascade Drilling

Borehole Name/Number: LX-B2 WR

Sonic Casing Dia: 8 in Sonic Casing Depth: 142 ft bgs

Static WL: 34.25 ft brp

RP: 8 ft + 9 ft (Top of Casing)

Reference Point Elevation: _____ ft amsl

Pump Depth: 151 ft bgs

0.608 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gals)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1454	0	34.25	0	9319	~10gpm								
1456	2	65.2	30.95	9321	~10gpm								
1500	6	68.7	34.45	9325.7	~10gpm								
1504	10	69.0	34.75	9327.8	10.25								
1524	30	69.3	35.05	9350.0	10.6								
1539	45	69.35	35.10	9365.3	10.2								
1554	60	70.00	35.75	9380.7	10.27								
1609	75	69.80	35.55	9396.1	10.27	18.6	1.80	2120	18790	14572	6.86	-41.1	2.13
1624	90	70.0	35.75	9411.8	10.96			21.34 mg/L					16.5
1639	105	69.20	34.95	9426.7	9.93								7.38
1654	120	69.45	35.50	9442.3	10.40	18.4	2.2	21506	19800	14620	6.66	78.0	4.82
1659	125	70.1	35.85	9447.5	10.40	18.4	1.6	21545	18831	14660.8	6.73	37.5	4.63
1704	130	70.00	35.75	9452.6	10.20	18.4	1.6	21582	18849	146547.2	6.74	21.8	3.22
0803	0	34.31	0	9454.85	final	10-14.20							
0805	2	51.6	17.29	9455.3	2.25			33.36 mg/L					
0809	6	52.3	17.93	9458.8	8.75			36.03 mg/L					
0813	10	55.1	20.79	9462.1	8.25			33.10 mg/L					
0833	30	67.25	23.24	9483.5	10.7	18.2	1.5	25558	22238	17333.20	6.67	45.2	12.8
0848	45	67.1	32.79	9499.1	10.7	18.2	1.5	22440	19597	15293	6.79	32.0	2.24

3/9

F-25

3/10

Stabilization Criteria:
 3 to 5 minute recordings with 3 consecutive readings within:
 pH: +/- 0.1 unit
 Cond: +/- 3%
 ORP: +/- 10 mV

Flow through cell = 1,000 mL/min

Turb: +/- 10%
 DO: +/- 10%

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ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET

Zone No. 2

Logged By: J. Sobolew & Cascade Drilling

Test Date: 3/10/14 Monday

Screened Interval: 161-171 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 151 ft bgs

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: CX-B2 WQ

Sonic Casing Dia: 8 in Sonic Casing Depth: 142 ft bgs

Static WL: 34.3 ft brp

RP: 8ft gss (Top of casing)

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal x 10)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
0903	60	67.45	33.14	9515.0	10.6	18.2	1.4	21701	18900	14762.8	6.70	25.1	2.03
0918	75	67.50	33.19	9530.8	10.53	18.3	1.4	21502	18739	14620.0	6.69	25.1	1.93
0933	90	67.60	33.29	9546.6	10.53	18.3	1.4	21467	18755	14606.40	6.69	26.8	1.17
0948	105	67.60	33.29	9562.7	11.40	18.3	1.5	21634	18887	14715.00	6.69	29.3	0.76
0958	115	67.60	33.29	9573.0	11.30	18.3	1.4	21646	18879	14708.40	6.69	29.9	0.74
1008	125	67.70	33.39	9583.60	10.6	18.3	1.4	21620	18875	14708.40	6.69	30.9	0.99
1012	WQ	Sampling											
1044	161	67.85	33.54	9622.40	10.78	18.4	1.4	21681	18965	14749.2	6.68	35.8	0.29
1054	171	67.85	33.54	9632.0	10.60	18.4	1.4	21686	18960	14762.8	6.68	36.2	0.44
1104	181	68.10	33.79	9643.5	10.50	18.4	1.4	21710	18952	14741.0	6.68	36.7	0.28
1114	191	68.0	33.69	9654.1	10.50	18.4	1.4	21715	18976	14776.4	6.68	37.5	0.24
1117	Final	totalizer		9656.8	pump off								
1220	WL	Recovery	= 35.30 ft brp										

Vol
ML/min
1,100

1,000

Flow through cell = 1,100 mL/min

Stabilization Criteria:
 3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV
- Turb: +/- 10%
- DO: +/- 10%

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ISOLATED AQUIFER

ZONE SAMPLING DATA SHEET

Zone No. 3

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: CX-02WQ

Sonic Casing Dia: 8 in Sonic Casing Depth: 92 ft bgs

Static WL: 31.70 ft brp

RP: 8 ft bgs (Top of Casing)

Logged By: J. Sobolew & C. G. ...

Test Date: 3/10-11/14

Screened Interval: 104-114 ft amsl

Reference Point Elevation: _____ ft amsl

Pump Depth: 91 ft bgs

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal x 10)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1627	0	31.70		9656.4		19.2	Myron L						
1629	2	47.00	15.30	9658.8	12.0	18.2		8632.45/cm					
1633	6	47.00	15.30	9664.9	15.25	17.9		31.73 mS/cm					
1637	10	45.30	13.60	9668.2	8.25	18.1		33.82 mS/cm				291	
1642	15	45.70	14.0	9673.6	10.80			35.68 mS/cm				94.3	
1643	Pump	off		9674.2									
0754	0	32.30		9674.2									
0756	2	45.70	13.40	9676.7	12.50	17.8							
0800	6	45.65	13.35	9681.3	11.50	17.8							
0804	10	45.85	13.55	9685.9	11.50	17.8	5.7	31363	33919	26751.2	6.69	127.3	81.60
0824	30	45.90	13.60	9709.0	11.55	17.8	4.0	38170	32980	25976.0	7.01	8.1	11.910
0834	45	45.85	13.55	9726.7	11.53	17.8	4.6	38898	33526	26424.6	7.00	-3.3	5.26
0854	60	45.90	13.60	9743.0	11.53	17.9	4.7	39263	33912	26696.0	6.98	2.9	5.05
0909	75	45.95	13.65	9761.2	11.60	17.9	5.0	39662	34262	26975.6	6.98	12.6	2.39
0924	90	45.95	13.65	9778.4	11.47	17.9	5.1	39796	34408	27057.2	6.97	21.2	2.89
0939	105	45.95	13.65	9796.1	11.80	18.0	5.1	39821	34467	27077.6	6.97	27.9	2.65
0954	120	46.0	13.70	9813.1	11.33	18.0	5.3	39909	34539	27132.0	6.97	33.6	1.53
1009	135	46.0	13.70	9830.6	11.66	18.0	5.3	39946	34607	27166.2	6.96	38.8	1.97
1024	150	46.0	13.70	9848.0	11.60	18.0	5.4	39974	34662	27179.6	6.96	42.2	2.52
1039	165	46.05	13.75	9865.4	11.60	18.0	5.4	39978	34666	27193.2	6.97	49.6	2.30

Flow through cell = 1.100 mL/min

Turb: +/- 10%
DO: +/- 10%

Stabilization Criteria:
3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit
Cond: +/- 3%
ORP: +/- 10 mV

3/10

F-27

3/11
1.947
activated

1,400

1,000

10L
(ML/min)

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Zone No. 3

Logged By: J. Sobelaw & Cascade Drilling Co. L.P.

Test Date: 3/10-11/14

Screened Interval: 104-114 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 91 ft bgs
0.68 constant

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: CX- B26G

Sonic Casing Dia: 8^{3/11} in Sonic Casing Depth: 12 ft bgs

Static WL: 31.7, 32.3 ft brp

RP: 8 ft ags (top of casing)

1.050

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1054	180	46.00	13.70	9882.9	11.67	18.1	5.4	40044	34733	27234.2	6.96	46.5	1.25
1109	195	46.05	13.75	9900.3	11.60	18.1	5.3	40057	34741	27234.0	6.96	47.3	0.49
1119	210	46.00	13.70	9912.0	11.70	18.1	5.3	40017	34769	27220.4	6.97	48.0	1.07
1129	220	46.00	13.70	9923.6	11.60	18.1	5.4	40025	34769	27213.0	6.97	47.7	1.89
1144	235	46.05	13.75	9941.1	11.66	18.1	5.3	40029	34781	27213.6	6.96	48.5	1.80
1159	250	46.00	13.70	9958.4	11.53	18.1	5.3	40022	34794	27213.6	6.96	48.1	0.94
1209	260	46.00	13.70	9970.1	11.70	18.2	5.3	40061	34807	27247.6	6.97	47.5	1.87
1224	275	46.00	13.70	9987.5	11.60	18.1	5.3	40069	34912	27247.6	6.96	47.2	2.38
1239	210	46.10	13.80	10004.9	11.60	18.2	5.3	40037	34740	27227.2	6.97	46.0	3.04
1254	305	37.70	5.40	10046.0	7.4	18.7	5.2	40125	35342	27281.6	6.98	36.6	5.66
1309	320	37.70	5.40	10023.5	5.0	18.8	5.2	40133	35319	27288.4	6.97	31.7	3.72
1324	335	37.70	5.40	10031.0	5.0	18.9	5.2	40133	35430	27288.4	6.98	30.9	3.06
1339	350	37.70	5.40	10038.4	4.93	18.8	5.2	40126	35380	27281.6	6.97	29.7	1.90
1354	365	37.70	5.40	10045.80	4.97	18.7	5.2	40150	35342	27308.8	6.97	29.1	1.90
1409	380	37.70	5.40	10053.32	4.17	18.7	5.3	40155	35332	27302.0	6.97	28.2	1.70
1424	395	37.70	5.40	10060.78	4.17	18.6	5.2	40156	35279	27308.8	6.97	27.0	4.24
1439	410	37.70	5.40	10068.23	4.97	18.6	5.3	40159	35288	27308.8	6.97	26.4	3.17
1454	425	37.60	5.30	10075.57	4.89	18.6	5.3	40166	35265	27308.8	6.97	25.5	4.58
1509	440	51.35	19.05	10097.08	14.34	17.7	5.6	40154	34555	27308	6.96	39.8	0.86
1524	455	51.4	19.1	10921.99	16.60	17.7	5.6	40160	34536	27315.6	6.95	44.2	0.69

Flow through cell = 1,050 mL/min

Stabilization Criteria:
3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 3

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: J. Sobolew & Cascade Drilling WL's

Borehole Name/Number: CX-192 WA

Test Date: 3/10-11/14

Sonic Casing Dia: 8 in Sonic Casing Depth: 92 ft bgs

Screened Interval: 104-114 ft bgs

Static WL: 31.7, 32.3 ft brp

Reference Point Elevation: _____ ft amsl

RP: 8 ft ags (Top of casing)

Pump Depth: 91 ft bgs

0.108 Constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1534	465	51.40	19.10	10137.35	15.37	17.7	5.6	40170	34534	27315.6	6.96	45.1	0.73
1544	475	51.40	19.10	10193.56	16.21	17.6	5.7	40173	34532	27315.6	6.96	45.6	0.57
1545	* <u>WL Sampling</u>												
1614	505	51.3	19.00	10203.05	16.50	17.7	5.6	40185	34550	27322.2	6.96	45.5	0.58
1624	515	51.40	19.10	10218.13	15.08	17.6	5.7	40188	34534	27329.2	6.96	45.9	0.45
1634	525	51.35	19.05	10234.26	16.13	17.6	5.6	40189	34534	27329.2	6.96	45.9	0.35
1637	<u>pump</u>	<u>off</u>	<u>@</u>	10237.43									
0745	<u>REC</u>	<u>32.00</u>	<u>WL Recovery</u>										

Vol
(ml/min)
1,200

Flow through cell = 1,200 ml/min

Stabilization Criteria:
 3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV
- Turb: +/- 10%
- DO: +/- 10%

3/12

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ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET

Zone No. 4

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: J. Sobolew & Cascade - wls

Borehole Name/Number: CX-B26R

Test Date: 3/12/14 Wednesday

Sonic Casing Dia: 1.8 in 30.90 m / Pump in ft bgs

Screened Interval: 55-65 ft bgs

Static WL: 29.75 ft brp

Reference Point Elevation: _____ ft amsl

RP: 6.5 ft ogs (top of casing)

Pump Depth: 54 ft bgs

0.68 Constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gals)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1205	0	30.80	0	102374.2									
1207	2	34.80	4.00	102395.11	10.45	18.3	4.4	39400	34377	26771.6	7.11	-34.7	7.57
1211	6	35.00	4.20	102424.4	7.33	18.3	4.5	31557	34531	26914.4	7.11	-27.3	7.64
1215	10	35.00	4.20	102453.6	7.30	18.3	4.6	31691	34647	26916.0	7.11	-20.1	6.52
1235	30	36.50	5.70	102634.7	9.06	18.2	4.5	39727	34565	27016.4	7.12	-13.7	7.57
1250	45	36.65	5.85	102781.7	9.80	18.2	4.6	39745	34616	27039.8	7.11	-9.1	5.30
1305	60	36.65	5.85	102930.0	9.89	18.2	4.6	31771	34581	27043.6	7.12	-6.6	5.64
1320	75	36.65	5.85	103078.4	9.89	18.2	4.6	31762	34578	27043.6	7.12	-3.3	7.15
1335	90	37.10	7.10	103247.9	11.00	18.1	4.7	31752	34555	27023.3	7.12	-0.5	3.04
1350	105	37.85	7.05	103427.8	11.99	18.1	4.7	31725	34520	27016.4	7.12	2.1	2.63
1405	120	37.85	7.05	103607.8	12.00	18.1	4.8	31721	34358	27016.4	7.12	4.3	2.53
1420	135	37.85	7.05	103788.0	12.01	17.7	4.8	31742	34309	27030.0	7.12	7.0	1.21
1435	150	37.85	7.05	103968.2	12.01	17.6	4.8	31729	34273	27044	7.12	8.7	0.98
1450	165	37.85	7.05	104148.4	12.01	17.8	4.7	31703	34237	27002.8	7.10	10.1	0.87
1505	180	37.85	7.05	104328.7	12.02	17.8	4.7	31704	34237	27002.8	7.12	11.1	1.79
1520	195	37.85	7.05	104508.9	12.01	17.8	4.8	31704	34236	27002.8	7.12	11.1	1.79
1535	210	37.85	7.05	104689.3	12.03	17.9	4.7	31610	34276	26989.2	7.12	12.8	1.75
1545	220	37.85	7.05	104809.5	12.02	17.8	4.7						
1555	230	37.85	7.05	104939.8	12.97	17.8	4.8						
1610	245	37.85	7.05	105110.0	11.35	17.9	4.7						

Vol (ml/min) 1,100

Flow Through Cell = 1,100 ml/min

Turb: +/- 10%
 DO: +/- 10%

Stabilization Criteria:
 3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit
 Cond: +/- 3%
 ORP: +/- 10 mV

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ISOLATED AQUIFER

ZONE SAMPLING DATA SHEET

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Zone No. 4
 Logged By: J. Sobolew, Cascade Drilling - WLS
 Test Date: 3/12/14 Wednesday
 Screened Interval: 55-65 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 54 ft bgs
0.68 constant

Client: RBF/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: Cx-B2WQ
 Sonic Casing Dia: 8 in Sonic Casing Depth: 44 ft bgs
 Static WL: 29.75 ft brp 29.80 w/pump in
 RP: 6.5 ft ogs (top of casing)

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1625	260	37.85	7.05	105290.5	12.03	17.7	4.7	39696	37194	26889.2	7.10	13.4	0.83
1635	270	37.85	7.05	105410.6	12.01	17.7	4.7	39694	34162	25996.0	7.12	13.9	1.22
1645	280	37.85	7.05	105530.7	12.01	17.7	4.7	39676	34155	26982.4	7.13	14.1	0.99
1655	290	37.85	7.05	105651.0	12.03	17.8	4.7	39666	34191	26975.6	7.12	15.7	0.42
1705	300	37.85	7.05	105771.2	12.02	17.8	4.7	39657	34162	26968.8	7.12	16.2	0.63
1715	WR	Sampling											
1730	325	37.85	7.05	106071.9	12.03	17.7	4.7	39650	34100	26962.0	7.13	17.5	0.98
1740	335	37.85	7.05	106191.6	11.97	17.6	4.7	39642	34087	26962.0	7.13	18.3	0.85
0735	Recovery	31.20ft brp		106219.3									

10L (m/min)
1,000

Flow through cell = 1,000 mL/min

Turb: +/- 10%
DO: +/- 10%

Stabilization Criteria:
3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit
Cond: +/- 3%
ORP: +/- 10 mV

3/13

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

Zone # 1 As Built

Zone No. 1

306 to 316 ft bgs

8" Sonic Casing to 285 ft bgs.
Open annulus above upper
bentonite seal.

289.5 ft bgs

10.0 ft

299.5 ft bgs

6.5 ft

306 ft bgs

10 -ft Perforated Tool

(4" PVC Screen
w/ 0.050" slot)

316 ft bgs

5.5 ft

321.5 ft bgs

7.5 ft

329 ft bgs

4 -in Diameter
Drill Pipe
PVC

10.0 -ft Upper
Bentonite Seal

MiSWACO Kwik-Plug
Medium (3/8") Bentonite
Chips (2 bags)

Gravel Pack CEMEX
Monterey #3
(15 bags)

8 -in Diameter
Pilot Borehole

7.5 -ft Lower
Bentonite Seal
(3 bags)

native material

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Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole CX-B4

Date: 4-3-14 / Thu & 4-4-14 / Fri

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

Zone #2 As-Built

Zone No. 2

248 to 258 ft bgs

8" Sonic Casing to 236 ft bgs.
Open annulus above upper
Bentonite seal.

236 ft bgs

6.5 ft

242.5 ft bgs

5.5 ft

248 ft bgs

10 -ft Perforated Tool
(4" PVC Screen
w/ 0.050" slots)

258 ft bgs

5 ft

263 ft bgs

6 ft

269 ft bgs

300
ft bgs

4 -in Diameter
Drill Pipe
PVC

6.5 -ft Upper
Bentonite Seal

Mt SWACO Kwik-Plug
Medium (3/8") Bentonite
chips (2 bags)

Gravel Pack **CEMEX**
Monterey #3
(13.5 bags)

8 -in Diameter
Pilot Borehole

6 -ft Lower
Bentonite Seal
(2.5 bags)

33 bags of **CEMEX**
Monterey #3
800 gal H₂O

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P.O. Box 220, Claremont, CA 91711
Tel: (909) 451-6650 Fax: (909) 451-6638
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Client: **RBF Consulting Inc.**

Well Name/Number: **MPWSP Exploratory Borehole CX-B4**

Date: **4-5-14 / Sat**

Zone#3 As Built

Zone No. 3

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

8" sonic casing to 144 ft bgs.
Open annulus above upper
bentonite seal.

155 to 165 ft bgs

143.5 ft bgs

6.5 ft

4 -in Diameter
Drill Pipe

150 ft bgs

6.5 -ft Upper ^{1 1/2 bags}
Bentonite Seal

M. SWACO Kwik-Plug
Medium (3/8") Bentonite
Chips (1 1/2 bags)

155 ft bgs

5 ft

Gravel Pack **CEMEX
Monterey #3
(13 bags)**

10 -ft Perforated Tool
(4" PVC Screen
w/ 0.050" slots)

8 -in Diameter
Pilot Borehole

165 ft bgs

5 ft

170 ft bgs

5 ft

5 -ft Lower
Bentonite Seal
(3 bags)

175 ft bgs

900 gallons of H₂O
added

258
ft bgs

84 bags of **CEMEX
Monterey #3**

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Client: **RBF Consulting Inc.**

Well Name/Number: **MPWSP Exploratory Borehole CX-B4**

Date: **4-7-14 / Mon**

Zone #4 As Built

Zone No. 4

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

110 to 120 ft bgs

8" sonic casing to 95.8 ft bgs
Open annulus above upper
bentonite seal.

99 ft bgs

6.0 ft

4 -in Diameter
Drill Pipe
PVC

105 ft bgs

6 -ft Upper
Bentonite Seal

MISWACO Kwik-Flux
Medium (3/8") Bentonite
chips (2 1/2 bags)

110 ft bgs

5.0 ft

Gravel Pack CEMEX
Monterey #3
(12 bags)

10 -ft Perforated Tool
(4" PVC Screen
w/0.050" slots)

8 -in Diameter
Pilot Borehole

120 ft bgs

4.0 ft

124 ft bgs

7 -ft Lower
Bentonite Seal
(3 bags)

131 ft bgs

7.0 ft

24 bags of Monterey #3

600 gallons
H₂O added

166
ft bgs

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Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole CX-B4

Date: 4-8-14 Tue

Zone #5 As-Built

Zone No. 5

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

8" sonic casing to 45.7ft bgs.
Open annulus above upper
bentonite seal.

58 to 68 ft bgs

45 ft bgs

4 -in Diameter
~~Drill~~ Pipe
PVC

8.0 ft

53 ft bgs

8.0 -ft Upper
Bentonite Seal

Mi SWACO Kwik-Plug
Medium (3/8") Bentonite
chips. (2 bags)

5.0 ft

58 ft bgs

Gravel Pack

CEMEX
Monterey #3
(12 bags)

10 -ft Perforated Tool

(4" PVC screen
w/ 0.050" slots)

8 -in Diameter
Pilot Borehole

68 ft bgs

5.5 ft

73.5 ft bgs

4.5 ft

4.5 -ft Lower
Bentonite Seal
(2 bags)

78 ft bgs

Added 700 gal
of fresh water

95 ft bgs

21 bags of CEMEX
Monterey #3

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Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole CX-B4

Date: 4-9-14 / Wed

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Zone No. 1 W.L.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling

W.L.'s taken using an electronic W.L. indicator.

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: CX-B4

Test Date: 4-4-14 / Fri

Sonic Casing Dia: 8 in Sonic Casing Depth: 285 ft bgs

Screened Interval: 306-316 ft bgs

Static WL: 45.9 ft brp

Reference Point Elevation: _____ ft amsl *intake*

RP: 7.5 ft ags (Top of 8" casing) *stable*

Pump Depth: 193.3 ft bgs *0.68 constant*

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
12:44:15	0	45.9	0	106218.9	Pump on @ ~12 gpm.			12:46	↓ Q to 9.2 gpm.				
12:50	6	138.0	92.1	-	9.2				↑ Q to 9.8 gpm. Rate decreasing on its own.				
13:05	21	175.8	129.9	-	9.3				Water aerated & turbid.				Out of range
13:15	31	175.95	130.05	106513.0	9.5				Water milky/aerated				257
13:30	46	175.45	129.55	106653.3	9.4				"				47.6
13:45	61	177.25	131.35	106794.6	9.4	21.0	0.6	34260	31679	23334.0	6.73	-32.0	35.7
14:00	76	178.1	132.2	106937.6	9.5	21.1	0.6	35603	32931	24214.8	6.69	-69.4	37.5
14:15	91	176.7	130.8	107080.5	9.5	21.0	0.7	36247	33452	24650.0	6.72	-79.1	29.7
14:30	106	177.5	131.6	107223.4	9.5	21.0	0.7	36662	33834	24935.6	6.66	-82.7	17.4
14:45	121	176.3	130.4	107366.3	9.5	20.9	0.7	37024	34156	25173.6	6.64	-83.2	14.6
15:00	136	177.6	131.7	107508.9	9.5	21.0	0.7	37222	34370	25309.6	6.67	-82.2	8.63
15:15	151	178.2	132.3	107651.2	9.5	21.0	0.7	37434	34581	25459.2	6.69	-80.6	7.05
15:30	166	179.0	133.1	107793.6	9.5	21.0	0.8	37445	34601	25466.0	6.69	-80.5	21.6
15:45	181	179.3	133.4	107936.0	9.5	20.9	0.8	37708	34804	25642.8	6.67	-79.3	5.09
16:00	196	179.1	133.2	108078.4	9.5	20.9	0.8	37807	34902	25704.0	6.65	-77.6	3.80
16:15	211	179.0	133.1	108220.6	9.5	20.9	0.7	37890	34963	25772	6.64	-75.6	3.61
16:30	226	177.7	131.8	108362.1	9.4	20.9	0.7	37977	35004	25826.4	6.63	-73.7	2.31
16:37:57	234			108437.2	Pump off								
					Total Volume pumped today =								
					2,218.3	gallons							

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1

W.L.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: CX-B4

Test Date: 4-5-14/Sat

Sonic Casing Dia: 8 in Sonic Casing Depth: 285 ft bgs

Screened Interval: 306-316 ft bgs

Static WL: 50.25 ft brp

Reference Point Elevation: _____ ft amsl

RP: 7.5 Stags (top of 8" casing)

Pump Depth: 193.3 ft bgs
 intake
 0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
7:48:43	0	50.25	0	108437.2	Pump on @ 7.8 gpm			7.54	↑ Q to 8.0 gpm		(Q dropping)		2.0
8:04	15	129.6	79.35	108566.6	7.7								31.2
8:19	30	133.35	83.10	108681.7	7.7								3.78
8:34	45	134.3	84.05	108796.2	7.6								1.10
8:49	60	134.4	84.15	108910.5	7.6								0.94
9:04	75	135.9	85.65	109026.0	7.7	20.9	1.0	37568	34576	25547.6	6.58	77.3	1.19
9:19	90	138.4	88.15	109145.5	8.0	20.9	0.6	37587	34620	25561.2	6.63	-9.1	0.91
9:34	105	138.85	88.60	109264.9	8.0	20.8	0.6	37654	34619	25602.0	6.62	-28.9	0.63
9:49	120	139.80	89.55	109384.4	8.0	20.9	0.6	37641	34702	25595.2	6.61	-36.4	0.50
9:59	130	139.50	89.25	109464.1	8.0	20.9	0.6	37688	34754	25629.2	6.61	-38.4	0.54
10:00	131	Begin collecting		Water samples for laboratory analysis. Samples placed on ice.									
10:28	159	140.60	90.35	109699.1	8.1	21.0	0.6	37646	34755	25602.0	6.61	-38.5	0.43
10:35	166	-	-	109754.5	Pump off.								
					Total Volume pumped today = 1317.3 gallons								
11:25	216	48.35	-1.90	recovered	W.L. after pulling pump.								

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

F-38

Flow thru cell = 1480.8 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2

W.L.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling

W.L.'s taken using an electronic WL indicator.

Logged By: Ni Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: CX-B4

Test Date: 4-6-14 / Sun

Sonic Casing Dia: 8 in Sonic Casing Depth: 236 ft bgs

Screened Interval: 248 - 258 ft bgs

Static WL: 45.25 ft brp

Reference Point Elevation: _____ ft amsl

RP: 6.7 ft ags (Top of 8" casing)

Pump Depth: 193.5 ft bgs (intake) *0.68 constant*

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Total Vol (gals)
09:27	0	45.25	0	109754.5	Pump on @ 8.7 gpm.									
09:35	8	74.25	29.00	109866.5	21.0					14.4 gpm	9.32 ↑ Q to 21.0 aerated.		3 gpm fur bio	
09:45	18	76.05	30.80	110076.5	21.0	Good zone.					Higher producing. Aerated.		35.1	
09:50	23				↓ Q to 11.8 gpm.									
09:55	28	60.5	15.25	110233.2	10.7								10.8	
10:10	43	60.7	15.45	110395.1	10.8								1.12	
10:25	58	60.8	15.55	110557.3	10.8								0.41	
10:40	73	60.95	15.70											
10:45	78	61.00	15.75	110773.7	10.8								0.67	
11:00	93	61.45	16.20	110936.5	10.9	19.8	3.0	35439	31916	24099.2	6.58	117.0	3.61	1182.0
11:10	103	61.50	16.25	111047.5	11.1	19.7	2.2	35705	32106	24282.8	6.68	47.1	2.35	1293.0
11:20	113	61.60	16.35	111158.5	11.1	19.7	2.2	35944	32340	24446.0	6.68	20.4	2.83	1404.0
11:30	123	61.60	16.35	111269.4	11.1	19.8	2.2	36168	32575	24595.6	6.68	9.7	2.36	
11:45	138	61.60	16.35	111435.6	11.1	19.8	2.2	36450	32845	24792.8	6.68	2.7	2.55	
12:00	153	61.70	16.45	111601.8	11.1	19.8	2.2	36688	33053	24956.0	6.69	-0.9	1.89	
12:15	168	61.70	16.45	111767.8	11.1	19.8	2.3	36915	33269	25105.6	6.68	-0.7	2.48	2013.3
12:30	183	61.75	16.50	111933.7	11.1	19.8	2.3	37081	33434	25214.4	6.68	0.4	1.80	
12:45	198	61.75	16.50	112099.6	11.1	19.8	2.3	37210	33528	25309.6	6.70	1.8	2.34	
13:00	213	61.80	16.55	112265.5	11.1	19.8	2.3	37564	33851	25540.8	6.69	5.0	1.72	
13:15	228	61.80	16.55	112431.5	11.1	19.8	2.3	37658	33967	25608.8	6.74	3.9	2.25	

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Flow thru cell = 1294.2 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: CX-B4

Test Date: 4-6-14 / Sun

Sonic Casing Dia: 8 in Sonic Casing Depth: 236 ft bgs

Screened Interval: 248-258 ft bgs

Static WL: 45.25 ft brp

Reference Point Elevation: _____ ft amsl

RP: 6.7 frags

Pump Depth: 193.5 ft bgs 0.68 constant

Time	Time Step (min)	Water Level (ft brp)	^{45.25} Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Total Vol (gal)
13:23	236	↓ Q to	5.4 gpm						Some fluctuation					
13:30	243	53.60	8.35	112559.8	5.3	20.1	2.3	37738	34242	25663	6.71	3.6	1.89	
13:45	258	53.55	8.30	112641.5	5.4	20.2	2.2	37844	34410	25731.2	6.72	4.9	1.00	
14:00	273	53.55	8.30	112723.0	5.4	20.2	2.2	37882	34414	25758.4	6.74	0.3	2.16	
14:15	288	53.55	8.30	112804.6	5.4	20.2	2.2	37937	34493	25799.2	6.74	0.0	2.98	
14:25	298	↑ Q to	21.6 gpm											
14:30	303	77.60	32.35	112962.9	21.2	19.6	2.3	37703	33824	25663.2	6.74	2.3	4.17	
14:45	318	77.70	32.45	113282.4	21.3	19.4	2.3	37947	33924	25806.0	6.70	10.1	2.71	3527.9
15:00	333	77.90	32.65	113602.2	21.3	19.5	2.4	38122	34087	25928.4	6.67	21.7	2.26	
15:15	348	78.00	32.75	113922.2	21.3	19.4	2.4	38213	34164	25982.8	6.66	28.1	1.88	4167.7
15:30	363	78.20	32.95	114242.6	21.4	19.4	2.4	38278	34205	26030.4	6.66	30.6	1.96	
15:45	378	78.30	33.05	114563.5	21.4	19.4	2.4	38324	34231	26057.6	6.66	34.0	1.70	
16:00	393	78.30	33.05	114884.3	21.4	19.4	2.5	38354	34291	26084.8	6.66	36.8	1.46	
16:05	398	Begin collecting WQ samples for laboratory analysis. Samples placed on ice.												
16:33	426	78.50	33.25	115594.2	21.5	19.4	2.5	38426	34384	26132.4	6.66	41.7	1.18	
16:39:48	433			115749.5	Pump off.									
					Total Volume pumped = 5995.0 gallons									
4/7	7:30	47.15												

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 3 (Day 1) w.l.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: CX-B4

Sonic Casing Dia: 8 in Sonic Casing Depth: 144 ft bgs

Static WL: 42.05 ft brp

RP: 6.0 ft ags (top of 8" casing)

WL's taken using an electronic WL indicator

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 4-7-14 / Mon

Screened Interval: 155-165 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 142.0 ft bgs (intake)

0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)	
13:48:28	0	42.05	0	115749.5	Pump on @ ~ 10 gpm.			Turbid						
13:55	7	85.80	43.75	115815.2	9.9								over range	
14:00	12	87.85	45.80	115864.7	9.9								466	
14:15	27	89.70	47.65	116011.9	9.8								148	
14:30	42	89.90	47.85	116159.5	9.8								143	
14:45	57	90.10	48.05	116307.0	9.8								18.1	
15:00	72	90.00	47.95	116454.7	9.8								3.97	
15:15	87	91.5	49.45	116603.6	9.9	19.1	4.7	27888	24761	18978.8	6.72	95.0	19.2	
15:30	102	91.6	49.55	116755.7	10.1	19.1	4.5	28361	25158	19284.8	6.77	46.6	2.90	
15:45	117	92.1	50.05	116908.1	10.2	19.1	4.6	28421	25214	19339.2	6.77	31.8	2.60	
16:00	132	92.05	50.00	117060.2	10.1	19.1	4.6	28527	25296	19400.4	6.78	25.1	3.36	
16:15	147	92.15	50.10	117212.3	10.1	19.1	4.6	28580	25347	19434.4	6.78	21.1	3.82	
16:30	162	92.10	50.05	117364.1	10.1	19.1	4.6	28609	25371	19454.8	6.78	17.9	2.71	
16:34:28	166			117419.2	Pump off.									
								Total Volume pumped today =		1669.7 gallons				

Total Vol (gal)

1006.2
 1158.6
 1310.7

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

*28.03 µS/cm
 15:42*

Turb: +/- 10%

DO: +/- 10%

F-41

Flow thru cell = 1419.1 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 3 (Day 2) WL's

Client: RBF/MPWSP - Exploratory Borehole Drilling *W.L.'s taken using an electronic WL indicator*
 Borehole Name/Number: CX-B4
 Sonic Casing Dia: 8 in Sonic Casing Depth: 144 ft bgs
 Static WL: 43.3 ft brp
 RP: 6.0 ftags (top of 8" casing)

Logged By: N. Reynolds (GSSI) & Cascade Drilling
 Test Date: 4-8-14 (Tue)
 Screened Interval: 155-165 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 142.0' ft bgs (insake) *0.68 constant*

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Tot Vol. (gal)
07:29:33	0	43.3	0	117419.2	Pump on @ 8.1 gpm, 7:32			↑ Q to 10.8 gpm		Some aeration.				
07:45	15	42.2	48.9	117577.9	10.5								16.4	
08:00	30	43.4	50.1	117735.1	10.5								15.9	
08:15	45	43.4	50.1	117892.7	10.5								11.2	
08:30	60	42.9	49.6	118050.6	10.5								24.5	
08:45	75	44.3	51.0	118210.2	10.6	18.8	4.9	28822	25407	19618.0	6.67	123.0	19.3	
09:00	90	44.4	51.1	118373.0	10.9	18.8	4.7	28984	25548	19713.2	6.72	85.3	3.89	953.8
09:15	105	44.55	51.25	118536.0	10.9	18.8	4.7	28927	25515	19672.4	6.73	69.4	3.84	
09:30	120	44.55	51.25	118698.4	10.8	18.8	4.6	28849	25424	19618.0	6.74	56.6	2.53	
09:46	136	44.65	51.35	118871.9	10.8	18.8	4.5	28766	25375	19556.0	6.74	44.4	4.77	
10:00	150	44.55	51.25	119023.8	10.9	18.9	4.5	28717	25354	19529.6	6.74	36.6	5.78	
10:15	165	44.65	51.35	119186.8	10.9	18.9	4.5	28657	25321	19488.8	6.74	31.3	3.89	1767.6
10:31	181	44.65	51.35	119360.6	10.9	19.0	4.5	28643	25335	19475.2	6.74	28.7	6.05	
10:45	195	44.70	51.40	119512.8	10.9	19.0	4.5	28609	25326	19454.8	6.74	27.6	3.51	
11:00	210	44.85	51.55	119675.9	10.9	19.0	4.5	28599	25310	19448.0	6.74	27.3	5.02	
11:15	225	44.90	51.60	119839.0	10.9	19.0	4.5	28585	25335	19434.4	6.75	28.0	5.24	
11:30	240	45.00	51.70	120002.0	10.9	19.0	4.6	28574	25304	19427.6	6.75	28.5	4.04	2582.8
11:44:32	254	↓ Q to	5.5 gpm		5.5									
11:45	255	44.40	41.10	120163.5	5.5	19.0	4.6	28577	25329	19434.4	6.75	28.7	2.58	2744.3
12:00	270	68.00	24.70	120248.2	5.6	19.4	4.5	28690	25629	19509.2	6.75	28.9	0.25	

Stabilization Criteria:

- 3 to 5 minute recordings with 3 consecutive readings within:
- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

Turb: +/- 10%
 DO: +/- 10%

F-42

Flow thru cell = 1329.8 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 4 *w.l.'s*

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: CX-B4

Sonic Casing Dia: 8 in Sonic Casing Depth: 95.8 ft bgs

Static WL: 41.20 ft brp

RP: 6.7 ftags (top of 8" casing)

*w.l.'s taken using
 an electronic w.l.
 indicator.*

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 4-9-14 / Wed

Screened Interval: 110-120 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 196 ft bgs

0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
7:59:56	0	41.20	0	120544.6	Pump on @		10.4 gpm						
08:03	3	45.40	4.20		Turbid								
08:15	15	45.45	4.25	120706.1	10.0								39.0
08:30	30	45.50	4.30	120856.6	10.0								16.0
08:37:50 ~ 38				120919.0	Pump off. Pump died.								
08:43	43	41.10	-0.10	Recovering w.l.									
10:07:40	0	41.55	0.35	120913.1	Resume pumping @								
10:15	7	44.50	3.30	120979.1	8.8								7.6
10:30	22	44.60	3.40	12110.7	8.8	19.0	4.8	29701	26333	20202.8	6.65	85.1	5.07
10:45	37	44.65	3.45	121243.2	8.8	19.0	4.9	29805	26405	20277.6	6.65	72.0	7.50
11:00	52	44.65	3.45	121375.8	8.8	19.0	5.0	29865	26428	20311.6	6.64	70.6	1.13
11:15	67	44.65	3.45	121508.7	8.9	19.0	5.0	29908	26473	20332.0	6.64	72.1	0.69
11:25	77	44.65	3.45	121597.6	8.9	18.9	5.1	29926	26423	20352.4	6.64	72.8	0.58
11:35	87	44.65	3.45	121686.3	8.9	18.9	5.1	29933	26466	20352.4	6.63	74.9	0.85
11:40	92	Begin collecting											
12:01	113	44.65	3.45	121922.3	9.1	18.9	5.1	29954	26471	20366.0	6.63	76.9	1.70
12:07:04	119			121976.0	Pump off.								
					Total volume pumped =								
12:45	157	41.5	0.30	Recovered	water level.								

Total Vol (gal)
 434.5
 566.1
 698.6
 831.2

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Flow thru cell = 1306.6 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 5 (Day 1) W.L.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: CX-B4
 Sonic Casing Dia: 8 in Sonic Casing Depth: 45.7 ft bgs
 Static WL: 42.20 ft brp
 RP: 7.4 ftags (top of 8" casing)

Logged By: N. Reynolds (ASSI) & Cascade Drilling
 Test Date: 4-9-14 / Wed
 Screened Interval: 58-68 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 57.5 ft bgs (intake)
0.68 constant

W.L.'s taken using an electronic W.L. indicator.

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
16:18:15	0	42.20	0	121975.9	Pump on @ 7.5 gpm								
16:23	5	48.25	6.05	122019.0	7.5								
16:33	15	48.70	6.50	122094.2	7.5	19.8	3.3	5343	4828	3651.6	6.80	-33.8	130
16:48	30	48.80	6.60	122209.8	7.7	19.3	4.7	5834	5192	3978.0	7.02	-85.6	42.2
17:03	45	48.90	6.70	122324.9	7.7	19.1	5.5	6134	5442	4161.6	7.02	-70.8	23.8
17:07:00	49	-	-	122355.9	Pump off.								
					Total Volume pumped = 380.0 gallons								

Stabilization Criteria: Note: 200 gal fresh water added during construction.
 3 to 5 minute recordings with 3 consecutive readings within:
 pH: +/- 0.1 unit
 Cond: +/- 3%
 ORP: +/- 10 mV

Flow thru cell = 1173.7 mL/min

Turb: +/- 10%
 DO: +/- 10%
F-45

16:39 5641

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Zone No. 5 (Day 2) w.l.'s

Client: RBf/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: CX-B4

Sonic Casing Dia: 8 in Sonic Casing Depth: 45.7 ft bgs

Static WL: 42.20 ft brp

RP: 7.4 ftags (top of 8" casing)

WL's taken using an electronic WL indicator.

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 4-10-14 / Thu

Screened Interval: 58-68 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 57.5 ft bgs (intake)

0.68 Constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
07:14:11	0	42.20	0	122355.9	Pump on @ ~5gpm.								
07:19	5	46.05	3.85	122399.7	~5								
07:24	10	48.20	6.00	122432.7	7.4								
07:29	15	48.20	6.00	122469.0	7.3								
07:46	32	48.25	6.05	122592.1	7.2								
08:00	46	48.30	6.10	122693.6	7.3								
08:15	61	48.30	6.10	122802.6	7.3								
08:30	76	48.30	6.10	122911.8	7.3								
08:45	91	48.65	6.45	123024.8	7.5	18.6	6.1	6789	5959	4617.2	6.91	25.1	1.84
09:00	106	48.65	6.45	123140.0	7.7	18.7	6.2	6848	6022	4664.8	6.92	9.2	1.61
09:15	121	48.70	6.50	123254.2	7.6	18.6	6.3	6856	6023	4664.8	6.93	9.7	1.75
09:30	136	48.70	6.50	123368.6	7.6	18.6	6.4	6884	6045	4685.2	6.93	13.8	1.62
09:36	142				↓ Q to 4.8 gpm								
09:40	146	46.0	3.80	123433.4	4.8	19.0	6.4	6911	6116	4705.6	6.93	16.0	1.16
09:50	156	46.0	3.80	123480.5	4.7	19.0	6.3	6914	6127	4705.6	6.94	17.6	1.31
10:00	166	46.0	3.80	123527.4	4.7	19.1	6.3	6922	6139	4712.4	6.95	18.6	1.32
10:10	176	46.0	3.80	123574.3	4.7	19.1	6.3	6932	6154	4719.2	6.94	20.2	1.21
10:20	186	46.0	3.80	123621.1	4.7	19.1	6.3	6951	6168	4726.0	6.93	21.6	1.21
10:30	196	46.0	3.80	123668.4	4.7	19.1	6.4	6946	6159	4726.0	6.92	23.7	1.23
10:40	206	46.0	3.80	123714.9	4.7	19.1	6.4	6944	6170	4726.0	6.92	24.8	1.23

Total Vol. (gal)

446.7
555.9

898.3

1077.5

1218.4

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

F-46

Flow thru cell = 1,400.6 ml/min

6708
8:50

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 5 (Day 2) *WL's*
 Logged By: N. Reynolds (GSSI) & Cascade Drilling
 Test Date: 4-10-14 / Thu
 Screened Interval: 58-68 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 57.5 ft bgs

Client: RBF/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: CX-B4
 Sonic Casing Dia: 8 in Sonic Casing Depth: 45.7 ft bgs
 Static WL: 42.20 ft brp
 RP: 7.4 ft bgs

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
10:50	216	46.0	3.80	123761.7	4.7	19.1	6.4	6978	6193	4732.8	6.92	25.7	1.17
11:00	226	46.0	3.80	123808.5	4.7	19.1	6.4	6970	6186	4732.8	6.92	26.5	1.24
11:07	233	Recalibrate Hach 2100Q. (Spt: 20, 100, & 800 NTU).											
11:15	241	46.0	3.80	123878.3	4.7	19.1	6.4	6967	6182	4739.6	6.92	27.7	1.21
11:25	251	46.0	3.80	123924.9	4.7	19.1	6.5	6988	6208	4760.0	6.92	28.3	1.12
11:30	256	Begin WQ sampling for lab analysis. Samples placed on ice.											
11:49	275	46.0	3.80	124042.5	4.9	19.1	6.6	7044	6258	4794.0	6.92	30.1	1.01
11:55:35	282			124073.2	Pump off.								
					Total volume pumped today = 1717.3 gallons								
12:26	312	42.25	0.05	Recovered water level.									

Stabilization Criteria:

- 3 to 5 minute recordings with 3 consecutive readings within:
 - pH: +/- 0.1 unit
 - Cond: +/- 3%
 - ORP: +/- 10 mV
 - Turb: +/- 10%
 - DO: +/- 10%
 - Desired Flow Rate: 100 to 500 mL/min

Zone #1 As Built

Zone No. 1

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

8" Sonic Casing to 226 ft bgs.
Open annulus above upper
bentonite seal.

237 to 247 ft bgs

225 ft bgs

4 -in Diameter
Drill Pipe
PVC

7.0 ft

232 ft bgs

7.0 -ft Upper
Bentonite Seal

5.0 ft

237 ft bgs

MISWACO Kwik-Plug
Medium (3/8")
Bentonite chips
(3 bags)

Gravel Pack CEMEX
Monterey #3
(14 bags)

10 -ft Perforated Tool
(4" PVC Screen
w/ 0.050" slots)

8 -in Diameter
Pilot Borehole

247 ft bgs

4.5 ft

251.5 ft bgs

8.5 ft

260 ft bgs

8.5 -ft Lower
Bentonite Seal
(4 bags)

1000 gal H₂O used.

300 ft bgs

backfill/formation

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Client: **RBF Consulting Inc.**

Well Name/Number: **MPWSP Exploratory Borehole MPW-1**

Date: **4-30-14 / Wed**

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

Zone #2 AS Built

Zone No. 2

187 to 197 ft bgs

8" Sonic Casing to 173 ft bgs.
Open annulus above upper
bentonite seal.

175 ft bgs

6.0

181 ft bgs

6.0

187 ft bgs

10 -ft Perforated Tool

(4" Dia PVC w/
0.050" slots)

197 ft bgs

5.0

202 ft bgs

5.5

207.5 ft bgs

4 -in Diameter
Drill Pipe
PVC

6 -ft Upper
Bentonite Seal
CETCO Pure gold
~~M. SWACO Kwik Plug~~
Medium (~~3/8~~)
Bentonite Chips

Gravel Pack (2 bags)

8 -in Diameter
Pilot Borehole

Cemex
Monterey #3
(13 bags)

5.5 -ft Lower
Bentonite Seal
(2 1/2 bags)

backfill

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Client: RBF Consulting Inc

Well Name/Number: MPWSP Exploratory Borehole MDW-1

Date: 5/6/17 Tuesday

Zone #3 As Built

Zone No. 3

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

152 to 162 ft bgs

8" sonic casing to 142 ft bgs.
Open annulus above upper
Bentonite Seal.

139.5 ft bgs

5.5

4 -in Diameter
Drill Pipe
PVC

145 ft bgs

5.5 -ft Upper
Bentonite Seal

CETCO Puregold
Medium ~~(30)~~ Bentonite
chips (2 bags)

152 ft bgs

7.0

Gravel Pack CEMEX
Monterey #3
(14 bags)

10 -ft Perforated Tool
(4" PVC screen
w/0.050" slots)

8 -in Diameter
Pilot Borehole

162 ft bgs

5.0

167 ft bgs

5.0 -ft Lower
Bentonite Seal
(2 bags)

172 ft bgs

5.0

500 gallons of H₂O used

4 bags of Monterey #3

177
ft bgs

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Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole MDW-1

Date: 5-8-14 Thu

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

Zone # 4 As Built

Zone No. 4

60 to 70 ft bgs

9" sonic casing to 44 ft bgs.
Open annulus above upper
bentonite seal.

47.5 ft bgs

6.5 ft

54 ft bgs

6.0 ft

60 ft bgs

10 -ft Perforated Tool

(4" PVC Screen
w/ 0.050" slots)

70 ft bgs

5.0 ft

75 ft bgs

5.0 ft

80 ft bgs

4 -in Diameter
Drill Pipe
PVC

6.5 -ft Upper
Bentonite Seal

Mi SWACO Kwik Plug
Medium (3/8") Bentonite
chips (3 bags)

Gravel Pack CEMEX
Monterey #3
(13 bags)

8 -in Diameter
Pilot Borehole

5.0 -ft Lower
Bentonite Seal
(2.5 bags)

350 gallons of H₂O used

143
ft bgs

38 bags of Monterey #3

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Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole MDW-1

Date: 5-9-14 / Fri

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CONFIDENTIAL Day 1
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ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET

Zone No. 1 *w.l.'s*

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: MDW-1

Sonic Casing Dia: 8 in Sonic Casing Depth: 226 ft bgs

Static WL: 26.05 ft brp (*falling slowly*)

RP: 7.2 ftags (Top 8" casing)

*W.L.'s taken w/
 electronic w.L.
 indicator.*

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 4-30-14 / Wed (Day 1)

Screened Interval: 237-247 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 226 ft bgs (*intake*)

Myron readings (Not YSI)

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm) <i>MS/CM</i>	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
15:21:01	0	26.05	0	124073.1	Pump on @ ? gpm			15:22	Pump off. Totalizer reversed.				
15:26:54	0	-	-	124054.6	Pump on @ 10.8 gpm								
15:29	2	34.9	8.85	-	10.8	15:30	13 ↑ Q to						
15:33	6	45.0	18.95	124143.0	18.7		turbid / brown						
15:38	11	46.3	20.25	124249.8	21.4		Water clearing, aerated	15:39	10.5 ↑ Q. Valve wide open.				
15:41	14	56.8	30.75	-	31.5		turbid						
15:44	17	57.6	31.55	124427.4	31.5		Some brown fine sand.						229
16:00	33	58.55	32.50	124731.0	31.5			41.20		tr finesand			33.3
16:15	48	58.80	32.75	125403.2	31.5			41.57					21.0
16:30	63	58.90	32.85	125875.6	31.5			42.09					18.1
16:45	78	59.00	32.95	126347.9	31.5			42.30					14.0
17:00	93	59.05	33.00	126820.2	31.5			42.48					14.0
17:06	99			127011.2	Pump off.								
				Total volume pumped today = 2975.1 gallons									

894.9
 1839.5

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

F-52

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Day 2

**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1 w.L.'s

Logged By: N. Reynolds (GSS) & Cascade Drilling

Test Date: 5-1-14/Thu

Screened Interval: 237-247 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 226 ft bgs (intake) 0.68 constant

Client: RBf/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: MDW-1

Sonic Casing Dia: 8 in Sonic Casing Depth: 226 ft bgs

Static WL: 28.00 ft brp

RP: 7.2 ft ams (top of 8" casing)

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
07:30:53	0	28.00	0	127010.6	Pump on @		9.9 gpm						
07:34	3	35.40	7.40		9.9								
07:45	14	35.25	7.25	127149.2									39.9
08:00	29	35.20	7.20	127295.4									17.6
08:15	44	35.15	7.15	127441.9									9.43
08:30	59	35.15	7.15	127588.3									5.76
08:45	74	35.15	7.15	127735.0									7.71
09:00	89	35.10	7.10	127882.1									5.83
09:15	104	35.10	7.10	128029.3									6.74
09:30	119	35.30	7.30	128180.1	10.1	17.4	0.2	42697	36454	29036.0	7.11	-13.9	6.84
09:45	134	35.25	7.25	128333.7	10.2	17.4	0.2	42742	36529	29063.2	7.14	-42.1	6.82
10:00	149	35.20	7.20	128486.7	10.2	17.3	0.2	42773	36481	29083.6	7.13	-57.2	6.33
10:15	164	35.10	7.10	128639.7	10.2	17.3	0.2	42789	36510	29097.2	7.13	-67.8	3.22
10:30	179	35.00	7.00	128792.9	10.2	17.3	0.2	42807	36496	29110.8	7.13	-75.5	5.65
10:45	194	34.95	6.95	128946.8	10.3	17.3	0.2	42817	36505	29117.6	7.12	-81.2	5.89
11:00	209	34.90	6.90	129100.1	10.2	17.3	0.2	42831	36556	29124.4	7.13	-85.6	4.42
11:15	224	34.85	6.85	129253.5	10.2	17.3	0.2	42840	36577	29131.2	7.13	-89.1	4.71
11:22:18	231	↑ Q to	15.7 gpm										
11:30	239	39.75	11.75	129438.6	15.7	17.1	0.2	42879	36414	29158.4	7.13	-91.7	12.1
11:45	254	39.90	11.90	129674.5	15.7	17.1	0.2	42868	36416	29151.6	7.13	-92.2	5.05

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1498.5 mL/min

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Day 2

**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1 w.L.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: MDW-1

Sonic Casing Dia: 8 in Sonic Casing Depth: 226 ft bgs

Static WL: 28.00 ft brp

RP: 7.2 Stags (top of 8" casing)

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 5-1-14 / Thu

Screened Interval: 237-247 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 226 ft bgs

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
12:00	269	39.75	11.75	129909.8	15.7	17.1	0.2	42864	36394	29144.8	7.13	-94.1	3.66
12:15	284	39.65	11.65	130144.7	15.7	17.1	0.2	42862	36389	29144.8	7.12	-96.1	4.98
12:30	299	39.65	11.65	130380.6	15.7	17.1	0.2	42853	36383	29138.0	7.12	-98.0	3.26
12:45	314	39.60	11.60	130617.5	15.8	17.0	0.2	42856	36342	29144.8	7.11	-100.2	2.79
13:00	329	39.40	11.40	130853.5	15.7	17.1	0.2	42845	36382	29138.0	7.12	-101.4	2.35
13:15	344	39.35	11.35	131087.8	15.6	17.1	0.2	42841	36363	29131.2	7.12	-102.7	1.80
13:30	359	39.30	11.30	131322.5	15.6	17.1	0.2	42836	36397	29124.4	7.12	-103.9	1.50
13:45	374	39.45	11.45	131557.2	15.6	17.1	0.2	42826	36400	29124.4	7.12	-105.1	1.79
14:00	389	39.25	11.25	131793.1	15.7	17.1	0.2	42819	36386	29117.6	7.12	-106.2	1.53
14:15	404	39.40	11.40	132027.9	15.7	17.1	0.2	42813	36351	29110.8	7.12	-107.3	2.49
14:30	419	39.45	11.45	132264.8	15.8	17.1	0.2	42811	36322	29110.8	7.12	-108.0	2.28
14:45	434	39.45	11.45	132501.8	15.8	17.1	0.2	42802	36328	29104.0	7.12	-107.6	1.96
15:00	449	39.45	11.45	132738.8	15.8	17.0	0.2	42797	36307	29104.0	7.12	-107.6	2.22
15:15	464	39.45	11.45	132976.0	15.8	17.0	0.2	42787	36295	29097.2	7.12	-107.6	1.95
15:30	479	39.45	11.45	133212.5	15.8	17.1	0.2	42788	36308	29097.2	7.12	-107.5	2.33
15:45	494	39.50	11.50	133449.2	15.8	17.0	0.2	42787	36237	29097.2	7.12	-107.6	2.33
15:56	499	Begin collecting		WA samples for lab analysis.						Samples placed on ice.			
16:15	524	39.45	11.45	133927.1	15.9	17.0	0.2	42777	36216	29090.4	7.11	-108.0	1.95
16:22:18	531			134041.7	Pump off.								
										Total volume pumped today = 7031.1 gallons			

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Page 1

Zone No. 2 (187-197 ft bgs)

Logged By: J. Sobolew (GSSI) & Cascade Drilling *u/s*

Test Date: 5/6/14 Tuesday

Screened Interval: 187-197 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 173 ft bgs *0.68 constant*

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: MDW-1

Sonic Casing Dia: 8 in Sonic Casing Depth: 173 ft bgs

Static WL: 26.24 ft brp

RP: 7 ft a/s

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
1433	0	26.02	0	134041.7									
1435	2	27.70	1.68	134080.5	19.4								
1439	6	28.80	2.78	134136.2	13.93								
1443	10	29.10	3.08	134213.9	19.43								139/21
1503	30	29.15	3.13	134618.4	20.23	16.5	0.4	43281	36227	29444	6.81	-53.5	12.2
1518	45	29.15	3.13	134923.3	20.33	16.3	0.2	44131	36836	30015.20	6.82	-71.5	8.92
1533	60	29.05	3.03	135228.4	20.34	16.3	0.3	44601	37196	30328	6.82	-79.6	7.01
1548	75	29.00	2.98	135534.9	20.43	16.2	0.2	44797	37296	30764	6.82	-85.3	6.04
1603	90	28.95	2.93	135841.2	20.42	16.2	0.1	44969	37370	30070.8	6.82	-90.6	4.90
1618	105	28.90	2.88	136149.8	20.57	16.1	0.1	45152	37459	30702	6.83	-94.7	3.57
1620	Pump off			136216.5									

QT

Vel (mL/min)

1200

1000

1500

1360

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

F-55

Flow through cell:

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Zone No. 2 ^{WLS} Day 2

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: MPW-1

Sonic Casing Dia: 8 in Sonic Casing Depth: 173 ft bgs

Static WL: 26.20 ft brp

RP: 7.0 fags (top of 8" casing)

W.L.'s taken using an electronic WL indicator.

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 5-7-14 / Wed

Screened Interval: 187-197 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 173 ft bgs

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
7:50:35	0	26.20	0	136216.5	Pump on @		10.2 gpm						turbid
7:55	5	-	-	136280.9	10:56		↓ slightly fo	9.5 gpm					125
8:05	15	27.30	1.10	136374.5	9.1		Aerated						3.96
8:20	30	27.40	1.20	136511.1	9.1		"						3.11
8:35	45	27.45	1.25	136648.2	9.1								3.80
8:50	60	27.50	1.30	136785.5	9.2								3.04
9:05	75	27.55	1.35	136922.6	9.1	16.3	1.7	45594	38005	31008.0	6.62	-14.7	1.95
9:20	90	27.65	1.45	137062.4	9.3	16.3	0.1	45626	38019	31028.4	6.78	-62.3	1.92
9:35	105	27.70	1.50	137202.8	9.4	16.3	0.1	45633	38044	31028.4	6.80	-79.7	1.98
9:50	120	27.75	1.55	137343.5	9.4	16.3	0.1	45684	38094	31062.4	6.80	-86.9	1.84
10:05	135	27.80	1.60	137483.6	9.3	16.3	0.1	45724	38136	31089.6	6.80	-91.0	1.50
10:20	150	27.85	1.65	137623.6	9.3	16.3	0.1	45736	38180	31096.4	6.80	-93.9	2.57
10:35	165	27.90	1.70	137763.8	9.3	16.3	0.1	45750	38166	31110.0	6.80	-96.0	1.72
10:50	180	27.95	1.75	137903.9	9.3	16.3	0.1	45765	38171	31116.8	6.80	-97.7	1.68
11:05	195	28.00	1.80	138044.1	9.3	16.3	0.1	45776	38221	31130.4	6.80	-99.0	1.87
11:20	210	28.00	1.80	138184.4	9.4	16.3	0.1	45790	38227	31132.2	6.80	-100.1	1.80
11:35	225	28.05	1.85	138324.7	9.4	16.3	0.1	45802	38239	31144.0	6.80	-101.1	1.58
11:50	240	28.05	1.85	138465.0	9.4	16.4	0.1	45806	38281	31144.0	6.80	-102.1	1.68
12:05	255	28.05	1.85	138605.2	9.3	16.4	0.1	45812	38278	31150.8	6.80	-103.1	1.61
12:10:36	260				↓ Q to	5.4 gpm							

Total Vol. (gal)

706.1
845.9

2108.2

0.68 constant

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1099.7 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2

Day 2

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSSI)

Borehole Name/Number: MDW-1

Test Date: 3-7-14 / Thu

Sonic Casing Dia: 8 in Sonic Casing Depth: 173 ft bgs

Screened Interval: 187-197 ft bgs

Static WL: 26.20 ft brp

Reference Point Elevation: _____ ft amsl

RP: 7.0 Stags

Pump Depth: 173 ft bgs

0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
12:20	270	27.60	1.40	138712.8	5.4	16.7	0.1	45813	38609	31150.8	6.80	-105.3	2.59
12:35	285	27.60	1.40	138791.6	5.3	16.8	0.1	45841	38653	31171.2	6.81	-105.6	2.84
12:42:05	292	-	-	138828.1	Pump shuts off. Stop to fix generator.								
13:07:13	317	-	-	138828.1	Resume pumping @ 6.9 gpm.								
13:15	325	27.60	1.40	138888.5	7.2	16.7	0.1	45859	38636	31178.0	6.81	-99.4	3.85
13:30	340	27.60	1.40	138996.5	7.2	16.8	0.1	45854	38686	31178.0	6.81	-102.0	2.40
13:45	355	27.55	1.35	139104.5	7.2	16.8	0.1	45862	38716	31184.8	6.80	-103.9	2.37
14:00	370	27.50	1.30	139212.2	7.2	16.8	0.1	45873	38728	31191.6	6.80	-104.9	0.68
14:10	380	27.45	1.25	139284.1	7.2	16.8	0.1	45882	38735	31198.4	6.80	-105.5	0.51
14:20	390	27.40	1.20	139356.0	7.2	16.8	0.2	45875	38793	31198.4	6.80	-106.0	0.64
14:25	395	Begin collecting WQ samples for lab analysis. Samples placed on ice.											
14:44	414	27.30	1.10	139533.3	7.4	16.8	0.2	45896	38714	31205.2	6.80	-106.6	0.30
14:48:26	418			139565.3	Pump off. Total Volume pumped today = 3348.8 gallons								

Total Vol (gal)

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1191.4 mL/min (13:13)

48:26

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Zone No. 3 *W.L.'s*

Client: RBf/MPWSP - Exploratory Borehole Drilling *W.L.'s taken w/ an electronic W.L. indicator:*
Borehole Name/Number: MPW-1
Sonic Casing Dia: 8 in Sonic Casing Depth: 142 ft bgs
Static WL: 28.25 ft brp
RP: 7.9 ftags (top of 8" casing)

Logged By: N. Reynolds (GSSI) & Cascade Drilling
Test Date: 5-8-74/Thu
Screened Interval: 152-162 ft bgs
Reference Point Elevation: _____ ft amsl
Pump Depth: 142 ft bgs *D.168 constant*

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
11:40:28	0	28.25	0	139565.4	Pump on @		12.1 gpm						
11:43	3	53.0	24.75	-	12.1		grey turbid						
11:48	8	77.00	48.75	-	21.6					11:45:30 ↑ Q to 21.6 gpm			
11:55	15	84.85	56.60	139827.7	21.5								107
12:12	32	86.05	57.80	140192.8	21.5		(W.L. @ 12:10)						13.0
12:25	45	86.95	58.70	140472.1	21.5								9.02
12:40	60	87.30	59.05	140794.5	21.5								5.07
12:55	75	87.60	59.35	141116.7	21.5								3.91
13:10	90	88.00	59.75	141438.7	21.5								3.30
13:25	105	88.20	59.95	141760.3	21.4								2.40
13:40	120	88.90	60.65	142082.6	21.5	16.1	0.2	36220	30067	24629.6	6.84	-73.4	2.33
13:55	135	89.00	60.75	142406.6	21.6	16.1	0.2	36462	30250	24779.2	6.91	-102.4	1.77
14:05	145	-	-	142622.4	21.6	16.1	0.1	36521	30316	24867.6	6.91	-110.6	1.39
14:10	150	89.10	60.85	142730.3	21.6	16.1	0.1	36583	30336	24881.2	6.91	-113.2	1.35
14:25	165	89.10	60.85	143053.7	21.6	16.1	0.1	36728	30472	24969.6	6.91	-118.6	1.00
14:40	180	89.25	61.00	143378.0	21.6	16.1	0.1	36826	30554	25078.4	6.91	-122.1	1.05
14:55	195	89.20	60.95	143701.8	21.6	16.1	0.1	36953	30670	25119.2	6.91	-124.6	1.22
15:10	210	89.25	61.00	144025.6	21.6	16.0	0.1	37063	30733	25214.4	6.91	-126.4	0.95
15:20	220	89.30	61.05	144241.6	21.6	16.0	0.1	37132	30745	25228.0	6.91	-127.2	0.93
15:30	230	89.20	60.95	144457.6	21.6	16.0	0.1	37196	30803	25309.6	6.91	-128.1	1.14

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 300 mL/min

Flow thru cell = 1290.9 mL/min

36.36

got Myronck reading

F-58

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 3

Client: RBf/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: MDW-1

Sonic Casing Dia: 8 in Sonic Casing Depth: 142 ft bgs

Static WL: 28.25 ft brp

RP: 7.9 ftags

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 5-8-14 / Thu

Screened Interval: 152-162 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 142 ft bgs

0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
15:40	240	89.25	61.00	144673.3	21.6	16.0	0.1	37247	30853	25323.2	6.91	-128.8	2.40
15:50	250	89.30	61.05	144889.2	21.6	16.0	0.1	37260	30885	25330.0	6.91	-129.3	1.70
16:00	260	89.35	61.10	145105.0	21.6	16.0	0.1	37344	30916	25377.6	6.91	-129.3	1.95
16:10	270	89.50	61.25	145320.7	21.6	16.0	0.1	37363	30928	25404.8	6.91	-129.2	0.98
16:20	280	89.25	61.00	145536.6	21.6	15.9	0.1	37414	30941	25432.0	6.91	-129.7	2.82
16:30	290	89.20	60.95	145752.3	21.6	15.9	0.1	37451	30928	25459.2	6.91	-130.4	1.30
16:40	300	89.30	61.05	145968.2	21.6	15.9	0.1	37515	30985	25479.6	6.90	-131.2	0.78
16:50	310	89.25	61.00	146184.0	21.6	15.9	0.1	37546	31014	25513.6	6.90	-131.8	0.84
16:55	315	Begin collecting		WA samples for lab analysis. Samples placed on ice.									
17:10	330	89.25	61.00	146618.1	21.7	15.9	0.1	37642	31053	25595.2	6.90	-132.4	1.37
17:15:45	336			146740.4	Pump off.								
					Total Volume pumped = 7,175 gallons								
5/9/07:30		28.80	0.55										

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Day 1

Zone No. 4 W.L.'s

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: MDW-1

Sonic Casing Dia: 9 in Sonic Casing Depth: 44 ft bgs

Static WL: 20.70 ft brp

RP: 6.0 ft ags (top of 9" casing)

W.L.'s taken w/ an electronic W.L. indicator.

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 5-9-14 / Fri

Screened Interval: 60-70 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 59.0 ft bgs
Myron L (not 4SI)

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)	
15:30:15	0	20.70	0	146740.3	Pump on @ 7.9 gpm.				Very turbid/gray.					
15:35	5	24.00	3.30	146785.8	7.9				Turbid but improving.					
15:40	10	24.10	3.40	146825.2	7.9				15:43:38 ↑ Q to 16.7 gpm (PWL = 28.4 ft brp).			446		
15:50	20	35.40	14.70	146986.3	30.5	← max pump Q							246.0	
16:00	30	35.65	14.95	147291.1	30.5				30.32				550.8	
16:15	45	35.85	15.15	147748.5	30.5				30.70				1008.2	
16:30	60	35.90	15.20	148207.2	30.6				31.00				7.11	
16:45	75	35.95	15.25	148666.0	30.6				31.26				4.95	
16:49:45	~80			148810.9	Pump off.									
					Total volume pumped today = 2070.6 gallons									

Total Vol. (gal)
246.0
550.8
1008.2

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Day 2

Zone No. 4

W.L.'s

Client: RBf/MPWSP - Exploratory Borehole Drilling

W.L.'s taken using an electronic W.L. indicator.

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: MDW-1

Test Date: 5-10-14 / Sat

Sonic Casing Dia: 9 in Sonic Casing Depth: 44 ft bgs

Screened Interval: 60-70 ft bgs

Static WL: 20.65 ft brp

Reference Point Elevation: _____ ft amsl

RP: 6.0 ftags (top of 9" casing)

Pump Depth: 59.0 ft bgs

0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
8:58:16	0	20.65	0	148810.9	Pump on @ ~15.5 gpm.			Water clear.					
09:03	5	26.80	6.15	-	15.5								
09:08	10	26.80	6.15	148951.8	15.2								14.0
09:23	25	26.80	6.15	149179.2	15.2			slightly aerated					6.50
09:38	40	26.80	6.15	149407.1	15.2			aerated sample					4.34
09:53	55	26.80	6.15	149634.5	15.2			" "					2.96
10:08	70	26.90	6.25	149863.0	15.2	16.0	2.4	31624	26190	21515.2	7.25	80.2	1.88
10:23	85	26.90	6.25	150094.3	15.4	16.0	2.4	31699	26270	21562.8	7.33	20.9	1.39
10:38	100	26.95	6.30	150325.7	15.4	16.0	2.4	31805	26336	21624.0	7.33	0.6	1.30
10:53	115	26.95	6.30	150557.1	15.4	16.0	2.4	31858	26393	21658.0	7.33	-5.5	1.23
11:08	130	26.95	6.30	150788.7	15.4	16.0	2.4	31930	26462	21719.2	7.33	-9.1	1.50
11:23	145	27.00	6.35	151020.2	15.4	16.0	2.4	32007	26526	21766.8	7.33	-10.5	1.20
11:38	160	27.00	6.35	151251.7	15.4	16.0	2.4	32065	26591	21814.4	7.33	-10.8	0.92
11:48	170	27.00	6.35	151406.4	15.5	16.0	2.4	32107	26619	21841.6	7.32	-10.6	0.85
11:58	180	27.00	6.35	151560.7	15.4	16.0	2.5	32173	26662	21875.1	7.32	-10.1	0.83
12:05	187	Begin collecting		no samples									
12:25	207	27.05	6.40	151982.8	15.6	16.0	2.6	32301	26769	21970.8	7.32	-8.9	0.89
12:32:54	215			152104.7	Pump off.								
13:53	295	20.90	0.25		Total volume pumped today =				3293.8 gallons				

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

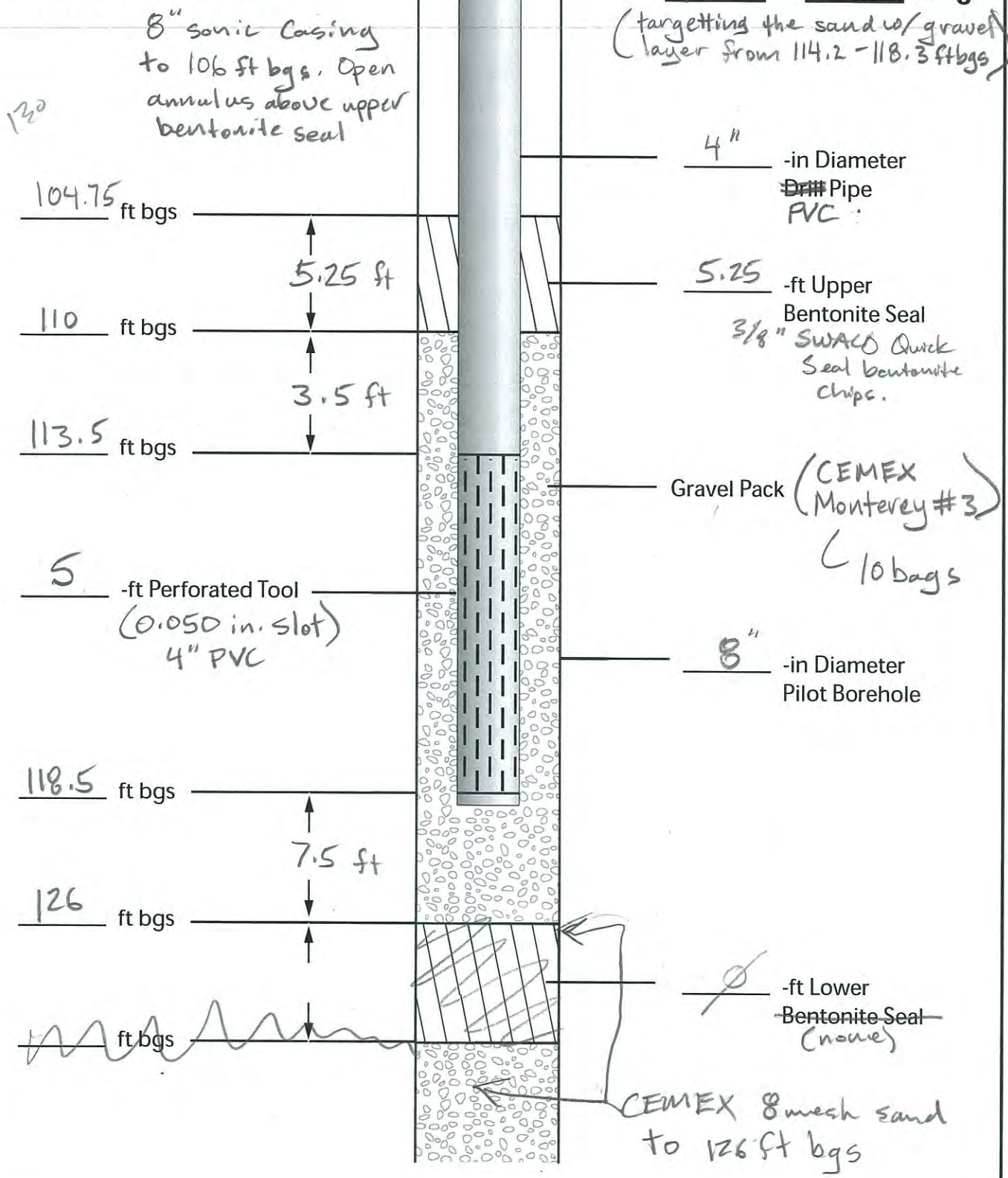
Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1239.7 mL/min

Zone#1 As-built

Zone No. 1

**ISOLATED AQUIFER
ZONE CONSTRUCTION**



113.5 to 118.5 ft bgs
(targetting the sand w/ gravel layer from 114.2 - 118.3 ft bgs)

120

8" sonic casing to 106 ft bgs. Open annulus above upper bentonite seal

104.75 ft bgs

5.25 ft

110 ft bgs

3.5 ft

113.5 ft bgs

5 -ft Perforated Tool (0.050 in. slot) 4" PVC

4" -in Diameter Pipe PVC

5.25 -ft Upper Bentonite Seal 3/8" SWACO Quick Seal bentonite chips.

Gravel Pack (CEMEX Monterey #3) 10 bags

8" -in Diameter Pilot Borehole

118.5 ft bgs

7.5 ft

126 ft bgs

-ft Lower Bentonite Seal (none)

CEMEX 8 mesh sand to 126 ft bgs

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Client: RBF Consulting Inc.
Well Name/Number: MPWSP Exploratory Borehole ML-1
Date: 10-5-13 / Sat

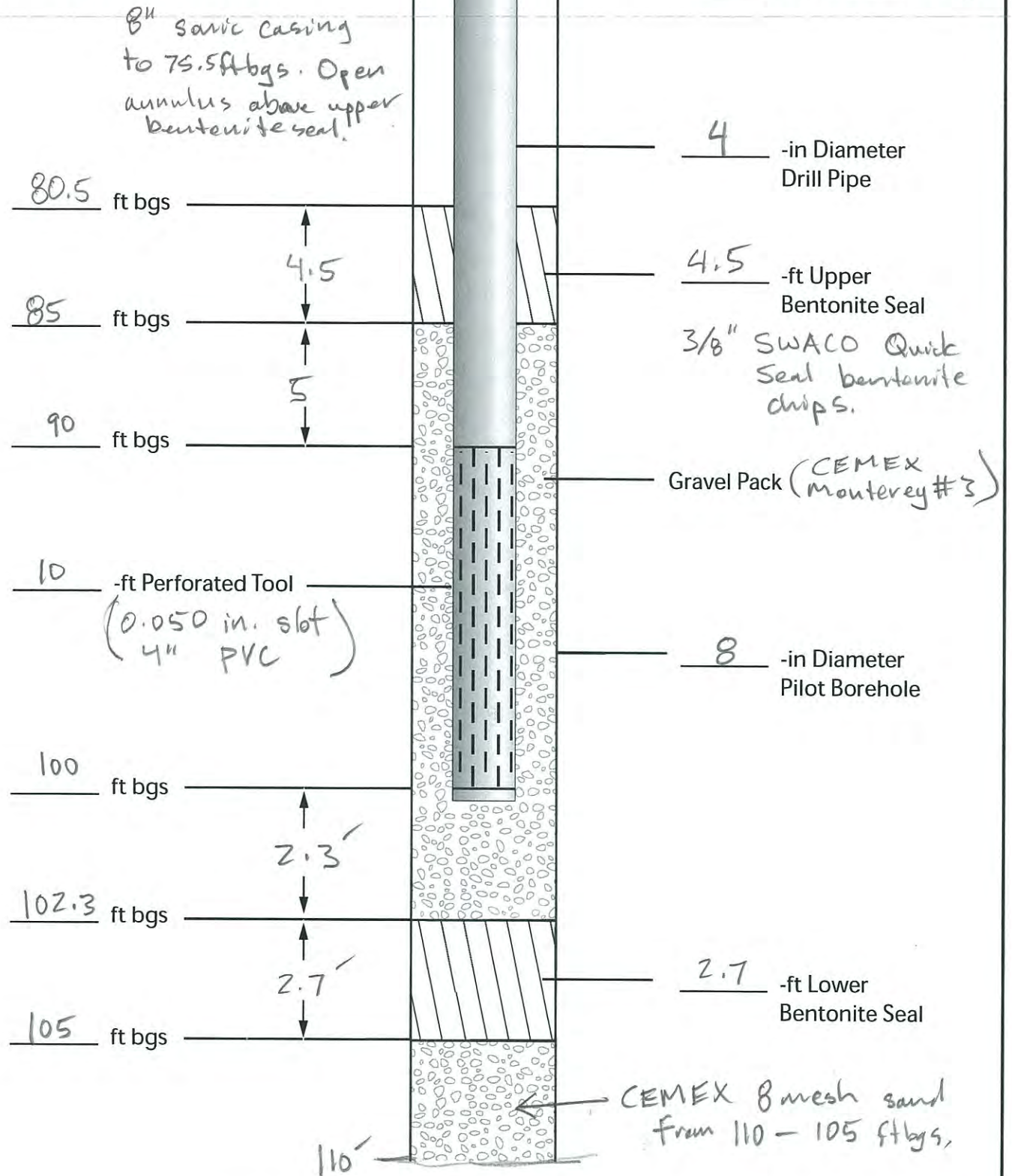
Zone #2 As Built

Appendix F

Zone No. 2

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

90 to 100 ft bgs



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Client: RBF Consulting Inc.

Well Name/Number: MP WSP Exploratory Borehole ML-1

Date: 10-7-13/Mon

Zone # 1 (113.5 - 118.5 ft bgs)

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ZONE SAMPLING DATA SHEET**

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Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSSI); Cascade Drilling

Borehole Name/Number: ML-1

Test Date: 10-5-13/Sat

Sonic Casing Dia: 8 in Sonic Casing Depth: 106 ft bgs

Screened Interval: 113.5 - 118.5 ft bgs

Static WL: 9.6 ft brp

Reference Point Elevation: _____ ft amsl

RP: 7.1 ft aqs

Pump Depth: 97 ft bgs

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gals)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
10:10	0	9.6	0	7597.6	0								
10:15	5	58.6	49.0	7685.4	17								
10:20	10	59.0	49.4	7769.5	16.8								
10:22	12												
10:25	15			7920.1									
10:31	21												
10:32	22	103.0	93.4	8101.2	22								
10:38	26	102.1	92.5		20								
10:50	40												
11:12	63												
11:15	65			8978.5									
11:20:40				8978.5									
11:23	73	25.5	16.9		10.3								
11:26	76				15.3								
11:27	77				17.8								
11:35	85	68.7	59.1										12.7
12:38:18				9210.0									
13:09		11.25	1.65										

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

See Page 2 →

Zone # 1 (113.5 - 118.5 ft bgs)

She Appendix F 2

YSI Pro Series

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

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Zone No. 1 (113.5 - 118.5 ft bgs)

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (ASST); Cascade Drilling

Borehole Name/Number: ML-1

Test Date: 10-5-13 / Sat

Sonic Casing Dia: 8 in Sonic Casing Depth: 106 ft bgs

Screened Interval: 113.5 - 118.5 ft bgs

Static WL: 11.7 ft brp ← 2nd static

Reference Point Elevation: _____ ft amsl

RP: 7.1 ft bgs ← New static

Pump Depth: 105 ft bgs ← 2nd Pump (Caulkover)

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal x 1)	Pumping Rate (gpm)	Temp (°C)	sensor DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	sensor ORP (mV)	Turbidity (NTU)	Salinity (ppt)
14:00:50	0	11.7	0	9215.5			Pump on.							
14:01							↓ Q							
14:04	3	34.5	22.8		12.7								70.0	
14:07	6				11.7		↑ Q							
14:16	14	36.6	24.9		13.8									
14:23	22	38.7	27.0	9500.0	~14	17.0	-	35842	30358	23302.5	6.83	-	5.75	
14:31	30	39.3	27.6	9611.8	14.0	16.9	-	35793	30280	23270.0	6.87	-	3.26	22.63
14:40	39	40.15	28.45	9737.4	14.0	17.0	-	35729	30299	23231.0	6.87	-	2.80	22.60
14:50	49	40.05	28.35	9876.5	13.9	16.9	-	35752	30195	23231.5	6.88	-	1.74	22.60
15:00	59	40.33	28.63	10,015.8	13.9	16.9	-	35696	30156	23198.5	6.89	-	1.26	22.55
15:10	69	40.7	29.0	10,155.5	14.0	17.0	-	35615	30180	23140.0	6.89	-	1.14	22.51
15:20	79	40.84	29.14	10,294.2	13.9	17.0	-	35557	30114	23107.5	6.91	-	1.06	22.47
15:30	89	41.0	29.3	10,433.4	13.9	17.0	-	35497	30048	23075.0	6.91	-	1.16	22.41
15:40	99	41.2	29.5	10,572.5	13.9	17.0	-	35429	30002	23029.5	6.91	-	1.04	22.38
15:50	109	41.65	29.95	10,711.4	13.9	16.9	-	35362	29915	22984.0	6.91	-	1.21	22.33
16:00	119	41.6	29.9	10,850.3	13.9	17.0	-	35300	29875	22964.5	6.91	-	0.88	22.30
16:10	129	41.75	30.05	10,989.2	13.9	17.0	-	35270	29827	22919.0	6.91	-	0.75	22.26
16:27	146	41.95	30.25	11,225.1	13.9	16.9	-	35169	29716	22847.5	6.92	-	0.70	22.21
16:45	Water samples collected for laboratory analysis. Placed on ice.													
17:47	226	42.62	30.92	12,356.2	14.1	16.7	-	34707	29195	22561.5	6.91	-	0.42	21.87

Stabilization Criteria: 17:54:43 12,462.0 Turn pump off. 4864.4 gallons pumped total.

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Turb: +/- 10%

Cond: +/- 3%

DO: +/- 10%

ORP: +/- 10 mV

Desired Flow Rate: 100 to 500 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2 (90-100 ft bgs)

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSS) & Cascade Drilling

Borehole Name/Number: ML-1

Test Date: 10-7-13 / Mon

Sonic Casing Dia: 8 in Sonic Casing Depth: 75.5 ft bgs

Screened Interval: 90-100 ft bgs

Static WL: 9.50 ft brp

Reference Point Elevation: _____ ft amsl

RP: 7.1 ft ags

Pump Depth: 80 ft bgs ← smaller pump

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gals)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Sal PPT
14:09:43	0	9.50	0	12,460.0	0									
14:13	3	~63	53.5		15.8									
14:15	5	61.5	52.0		11.0									
14:17	7													
14:27	17													
14:55	45													
15:26	136	77.8	70.7	13,409.3	11.1	17.0	-	628	532	409.50	7.21	-	12.5	0.31
		Water is very aerated/milky. Sulfur smell.												
15:48	151	78.9	69.4	13,573.3	10.9	17.0	-	630	534	409.50	7.22	-	10.0	
15:50	160	79.3	69.8	13,671.3	10.9	16.9	-	643	544	416.00	7.23	-	9.79	0.31
16:08	178	79.9	70.4	13,867.3	10.9	16.9	-	646	546	422.50	7.23	-	8.11	0.32
16:20	190	80.3	70.8	13,997.7	10.9	16.9	-	645	545	422.50	7.23	-	9.20	0.32
16:33	203	74.4	64.9	14,127.7	9.9	17.0	-	644	545	422.50	7.23	-	5.53	0.32
16:56	226	74.4	64.9	14,352.6	9.8	16.9	-	646	545	422.50	7.23	-	5.29	0.32
17:11	241	74.65	65.15	14,499.1	9.8	16.8	-	646	545	422.50	7.23	-	5.73	0.32
17:23	↓ Q slightly													
17:40	270	64.15	54.65	14,755.0	7.9	16.8	-	645	545	422.50	7.23	-	1.82	0.32
18:04	294	64.00	54.50	14,946.8	8.0	16.8	-	645	544	422.50	7.24	-	2.06	0.32
18:20	310	64.20	54.70	15,074.5	8.0	16.8	-	647	545	422.50	7.24	-	2.52	0.32
19:01	351	64.8	55.30	15,410.1	8.2	16.7	-	646	546	422.50	7.24	-	4.48	0.32

Stabilization Criteria: 19:14 Pump off. 15,551.0

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 300 mL/min

18:25 fake WQ samples for lab analysis.

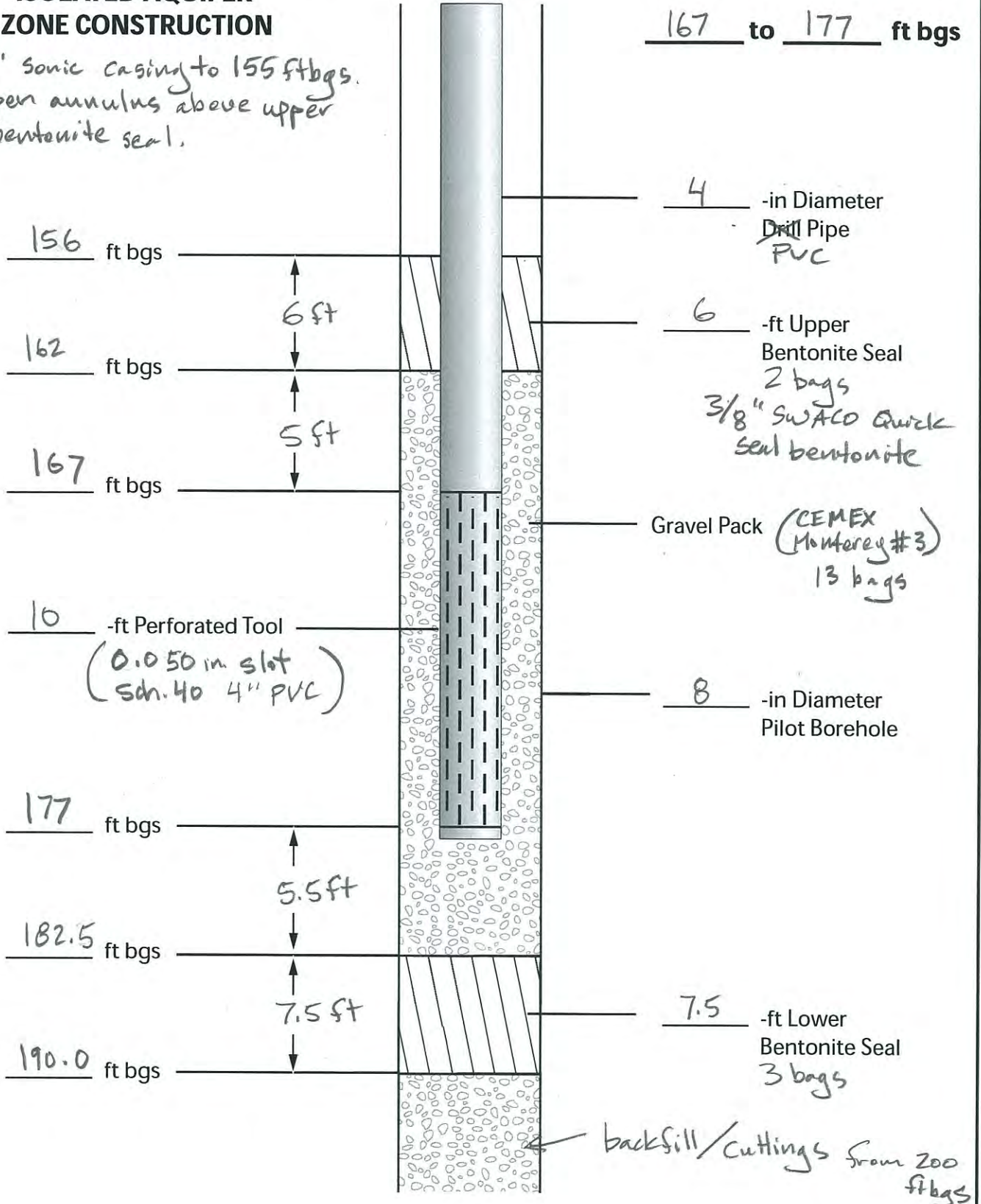
Zone #1 As Built

Zone No. 1

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

8" Sonic casing to 155 ft bgs.
Open annulus above upper
bentonite seal.

167 to 177 ft bgs



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Client: RBF Consulting Inc.

Well Name/Number: MPWSP ML-2 (Del Mar Fisheries)

Date: 12-16-13/ Mon

Zone #2 As-Built

Zone No. 2

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

90 to 100 ft bgs

8" sonic casing to 75 ft bgs
Open annulus above upper
bentonite seal.

80.3 ft bgs

4.4 ft

84.7 ft bgs

5.3 ft

90 ft bgs

10 -ft Perforated Tool
(0.050 in. slot)
4" PVC

100 ft bgs

4.5 ft

104.5 ft bgs

5.5 ft

110 ft bgs

1'4" fill

4 -in Diameter
Drill Pipe
PVC

4.4 -ft Upper
Bentonite Seal

3/8" SWACO Quick
Seal bentonite

Gravel Pack (CEMEX
Monterey #3)

8 -in Diameter
Pilot Borehole

5.5 -ft Lower
Bentonite Seal

2/12 sand from 140 ft bgs

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Client: RBF Consulting Inc.

Well Name/Number: MPWSP ML-2 (Del Mar Fisheries)

Date: 12-18-13 / Wed

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1 W.L.

Logged By: N. Reynolds (GSSI) & Cascade

Test Date: 12-17-13 Tue

Screened Interval: 167-177 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 165 ft bgs

Client: RBF/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: ML-2 (Pel Mar Fisheries)
 Sonic Casing Dia: 8 in Sonic Casing Depth: 155 ft bgs
 Static WL: 6.12 ft brp 2nd Static = 9.80 ft brp
 RP: 6.0 ftags (TOC)

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
10:10:23	0	6.12	0	51134.6	Pump on to test polarity & DD determination.								
10:13	3	90.0	84.0		21.8								
10:17	7	138.0	132.0		~22								
10:23	13	123.5	117.5		14.3								
10:33	23			51489.0	Pump off. Switch to smaller pump. 354.4 gallons pumped.								
13:08:10	0	9.80	new static	51461.9	Pump on @ 14.8 gpm								
13:11	3	59.3	49.5		14.8								
13:17	9	88.0	78.2		14.8								
13:20	12	91.2	81.4	51619.1	~14.8	17.8	0.2	34190	29464	23249.2	6.93	-28.3	12.4
13:24				51666.5	~14.8								
13:32					~13.3 gpm								
13:38	6	94.8	85.0		15.6								
13:50	18	130.4	120.6	51982.6	17.8	17.6	1.2	34195	29420	23276.4	6.90	-76.7	21.2
14:00	28	133.3	123.5	52160.4	17.8	17.6	0.4	34484	29612	23453.2	6.92	-94.9	9.79
14:10	38	134.0	124.2	52337.8	17.7	17.6	0.2	34566	29656	23500.8	6.91	-99.0	8.12
14:20	48	134.6	124.8	52515.0	17.7	17.5	0.1	34591	29665	23521.2	6.91	-100.3	5.80
14:30	58	135.0	125.2	52692.1	17.7	17.5	0.1	34614	29682	23534.8	6.90	-100.5	5.80
14:40	68	135.4	125.6	52869.3	17.7	17.5	0.0	34638	29662	23562.0	6.89	-100.6	3.46
14:50	78	135.5	125.7	53046.2	17.7	17.4	0.0	34651	29655	23562.0	6.87	-100.7	2.81
15:00	88	135.7	125.9	53223.1	17.7	17.4	0.0	34672	29638	23575.6	6.87	-100.1	2.44

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1081.5 mL/min

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Zone No. 1 ^{W.L.}

Logged By: N. Reynolds (GSSI) # Cascade

Test Date: 12-17-13 / Tue

Screened Interval: 167-177 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 165 ft bgs 0.68 constant

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: ML-2

Sonic Casing Dia: 8 in Sonic Casing Depth: 155 ft bgs

Static WL: 9.80 ft brp

RP: 6.0 ft aqs

Time	Time Step (min)	9.85ft Water Level (ft brp)	Drawdown (ft)	53223.1 Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
15:10	98	problem w/ sonar		53400.1	17.7	17.4	0.0	34688	29647	23589.2	6.86	-99.8	1.33
15:20	108	"	"	53577.1	17.7	17.4	0.0	34697	29650	23589.2	6.86	-99.8	3.50
15:30	118	136.7	126.9	53753.9	17.7	17.4	0.0	34716	29649	23602.8	6.86	-99.5	2.75
15:40	128	136.8	127.0	53930.8	17.7	17.4	0.0	34710	29643	23602.8	6.86	-98.9	1.94
15:50	138	136.9	127.1	54107.7	17.7	17.4	0.0	34717	29650	23609.6	6.86	-99.5	2.03
16:00	148	137.0	127.2	54284.5	17.7	17.4	0.0	34716	29646	23602.8	6.86	-99.2	1.70
16:10	158	137.2	127.4	54461.2	17.7	17.3	0.0	34729	29654	23616.4	6.86	-99.5	2.36
16:20	168	137.25	127.45	54638.1	17.7	17.4	0.0	34728	29657	23616.4	6.86	-99.2	2.78
16:30	178	137.24	127.44	54814.8	17.7	17.3	0.0	34734	29656	23616.4	6.86	-99.8	1.72
16:40	188	137.45	127.65	54991.6	17.7	17.3	0.0	34730	29650	23616.4	6.86	-99.2	1.68
16:45	193	Collect	WQ samples for lab analysis.										
17:15	223	138.5	128.7	55615.9	17.8	17.3	0.0	34760	29660	23636.8	6.86	-95.7	3.40
17:26	234			55818.4	Pump off.								
								Total volume pumped = 4683.8 gallons.					

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2

Client: RBF/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: MPWSP ML-2 (Del Mar Fisheries)
 Sonic Casing Dia: 8 in Sonic Casing Depth: 75 ft bgs
 Static WL: 9.6 ft brp (3.6 ft bgs)
 RP: 6.0 ags (top of 8" casing)

Logged By: N. Reynolds (GSSI) & Cascade
 Test Date: 12-18-13 / Wed
 Screened Interval: 90 - 100 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 80 ft bgs (intake)

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
15:45:19	0	9.6	0	55818.2	~28.2	Pump on.							
15:47	2	35.0	25.4		~28.2								
15:50	5	35.9	26.3	55964.6	~28.2								471
16:00	15	36.1	26.5	56246.2	28.2								25.2
16:10	25	36.2	26.6	56527.8	28.2								12.5
16:23	38	36.3	26.7	56893.9	28.2								5.12
16:25 & 16:26		↑ Q											
16:27	42	47.0	37.4		42.4	↑ Q							
16:32	47	55.3	45.7	57258.7	50.4	to ~48 gpm							
16:35	50	55.7	46.1	57408.1	49.8	50.6 ft brp w.L.							81.5
16:40	55	56.6	47.0	57656.5	49.7								27.6
16:45	60	57.1	47.5	57904.4	49.6								20.7
16:50	65	57.6	48.0	58151.9	49.5								16.6
16:52	67			58242.0		Pump off.							
										Volume pumped = 2,423.8 gallons			

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2 W.L.'s

Client: RBf/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: ML-2 (Del Mar Fisheries)
 Sonic Casing Dia: 8 in Sonic Casing Depth: 75 ft bgs
 Static WL: 7.6 ft brp (1.6 ft bgs)
 RP: 6.0' aqs (top of 8" casing)

Logged By: N. Reynolds (GSSI) & Cascade
 Test Date: 12-19-13 / Thu
 Screened Interval: 90 - 100 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 80 ft bgs 0.68 constant

high tide = 10:35 5.12'

Rising tide

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
8:22:10	0	7.6	0	58241.0	Pump on 19.6 gpm			08:24 ↑ Q to 25.1 gpm					
8:26	4	27.7	20.1	58324.8	25.1			Water slightly aerated.					22.6
8:30	8	28.5	20.9	58426.0	25.3								5.03
9:15	53	29.5	21.9	59565.0	25.3	16.3	0.1	10573	8813	7208.0	6.68	73.3	1.95
9:25	63	29.62	22.02	59819.5	25.5	16.3	0.0	10705	8946	7289.6	6.68	63.5	1.43
9:35	73	29.57	21.97	60074.1	25.5	16.4	0.0	10834	9049	7364.4	6.67	55.4	1.35
9:45	83	29.54	21.94	60328.4	25.4	16.4	0.0	10937	9145	7439.2	6.67	49.9	1.22
9:55	93	29.53	21.93	60582.4	25.4	16.4	0.0	11079	9253	7534.4	6.67	44.6	1.03
10:05	103	29.62	22.02	60836.4	25.4	16.4	0.0	11151	9335	7582.0	6.67	40.7	0.77
10:15	113	29.60	22.00	61090.5	25.4	16.4	0.0	11240	9414	7643.2	6.67	37.4	0.63
10:25	123	29.62	22.02	61344.9	25.4	16.4	0.0	11317	9480	7711.2	6.67	34.7	0.52
10:35	133	29.64	22.04	61599.0	25.4	16.4	0.0	11413	9549	7772.4	6.67	32.3	0.50
10:45	143	29.72	22.12	61853.1	25.4	16.4	0.0	11508	9635	7826.8	6.67	30.1	0.72
10:45	Begin	collecting WA samples for laboratory analysis. Samples placed on ice.											
11:01	159												0.51
11:22	180	29.97	22.37	62802.6	25.7	16.5	0.0	11825	9896	8037.6	6.68	22.1	0.58
11:50:28	188			63017.3	25.4	Pump off.		Total Volume pumped = 4776.3 gallons					
12:25	243	8.00	0.40	-	0								

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1148.5 mL/min

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

Zone #1 - As Built

Zone No. 1
180 to 190 ft bgs

8" sonic casing to 164 ft bgs
Open annulus above upper
bentonite seal.

169 ft bgs

5'

174 ft bgs

6'

180 ft bgs

10 -ft Perforated Tool
(0.050" slot
4" PVC)

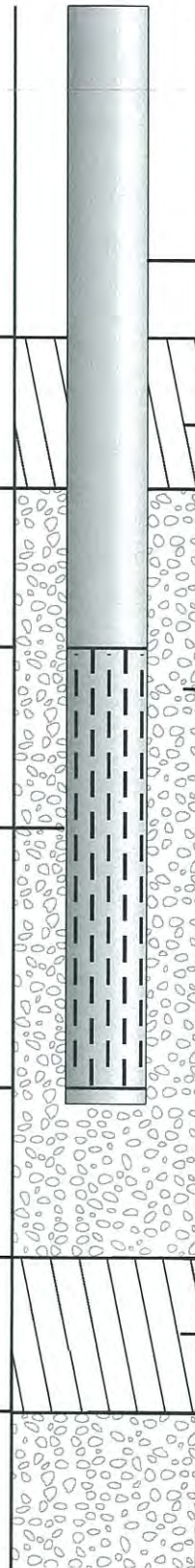
190 ft bgs

5'

195 ft bgs

5'

200 ft bgs



4 -in Diameter
Drift Pipe
PVC

5 -ft Upper
Bentonite Seal
3/8" SWACO Quick
Seal bentonite chips

Gravel Pack (CEMEX
Monterey #3)

8 -in Diameter
Pilot Borehole

5 -ft Lower
Bentonite Seal

Hole T.D. 200 ft bgs

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Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole ML-3

Date: 1-10-14 / Fri

Zone #2 - AsBuilt

Zone No. 2

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

8" sonic casing to 82 ft bgs
Open annulus above upper
bentonite seal.

103 to 113 ft bgs

93 ft bgs

5 ft

98 ft bgs

5 ft

103 ft bgs

10 -ft Perforated Tool
(0.050" slot
4" PVC)

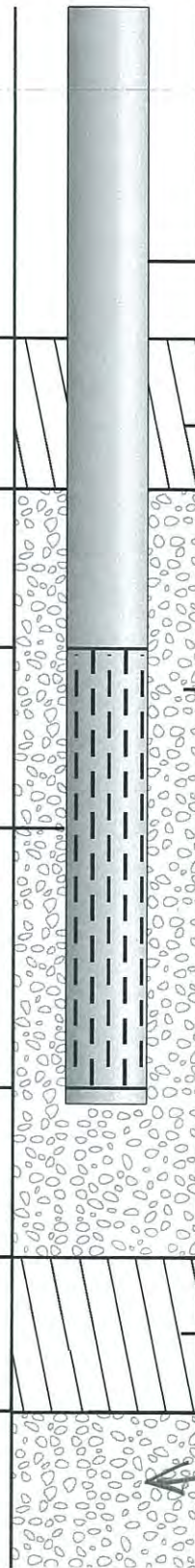
113 ft bgs

5 ft

118 ft bgs

5.5 ft

123.5 ft bgs



4 -in Diameter
Drill Pipe
PVC

5 -ft Upper
Bentonite Seal

CETCO Pure Gold
Medium bentonite
chips (2 1/2 bags)

Gravel Pack (CEMEX
Monterey #3)
13 bags

8 -in Diameter
Pilot Borehole

5.5 -ft Lower
Bentonite Seal
2 1/2 bags

CEMEX Lupis Lustre Sand
#2/12

175 ft bgs

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Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole ML-3

Date: 1-12-14/Sun

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: ML-3 (Hwy 1 South)

Sonic Casing Dia: 8 in Sonic Casing Depth: 164 ft bgs

Static WL: 14.0 ft brp (8 ft bgs)

RP: 6.0 ftags (top of 8" casing)

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 1-10-14/Fri

Screened Interval: 180-190 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 164.0 ft bgs 0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
14:41:21	0	14.0	0	63016.9	Pump on @ 23.5 gpm								
14:44	Stop pumping. PWL reaches pump.												
14:54:52	0			63057.9	@ ~2 gpm								
14:58	Stop pumping. PWL reaches pump. Recovery is slow. Crew pull pump and swab screen.												
16:56		58.7		63057.9	Recovering.								
16:57	Pump on @ ~2.5 gpm. Turbid.												
17:00		138.0		63089.9									
17:03	Stop pumping. PWL draws down to pump @ 2.5 gpm.												

Turbidity

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

5 / (3384/60)

365 gallons = 3 well Vol.

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: ML-3 (Hwy 1 South)

Test Date: 1-11-14 / Sat

Sonic Casing Dia: 8 in Sonic Casing Depth: 164 ft bgs

Screened Interval: 180-190 ft bgs

Static WL: 18.57 ft brp (12.57 ft bgs)

Reference Point Elevation: _____ ft amsl

RP: 6.0 ftags (top of 8" casing)

Pump Depth: 184 & 174 ft bgs

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
8:21:05	0	18.57	-	63083.3	Pump on @ ~3.8 gpm								
8:26	5	66.0	47.43										
8:31	10	99.0	80.43		3.2								
8:36	15	126.8	108.23		3.2								
8:40	19	139.5	120.93	63147.3	silty. Aerated.								
8:45	24	175.0	156.43			19.8	0.6	7744	6955	5222.4	7.43	-332.1	turbid
8:46	25	Pump off.		63166.5	W.L. approaching pump intake.								
8:54:30	33	139.9	121.33	Recovering	W.L. (slowly recovering)								
10:54	153	65.7	47.13	Recovering	W.L. after swabbing.								
12:20:20	0	41.2	22.63	63166.5	Pump on. 8.2 gpm.								
12:24	4	95.6	77.03		4.5								
12:30	10	sounder stuck		63204.6	~2.8								
12:36	16			63215.0	Stop Pumping. FWL @ pump.								
12:37:30		Resume pumping.											
12:39	19	159.7	121.13										
12:41	21	154.0	135.43	63222.2	2.2	19.7	5.4	9665	8678	6534	7.31	-97.9	turbid.
12:45	25	169.0	150.43	63231.4	2.3	20.0	5.2	8976	8102	6038	7.31	-100.2	" "
12:46	26	Stop Pumping. FWL @ pump.											
13:04:15	44	Resume pumping. ~2.0 gpm											
13:06	46			63233.0	2.0								

Total gallons

64.9

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 300 mL/min

15.57 gpd
11.12 gpd

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: ML-3 (Hwy 1 South)

Sonic Casing Dia: 8 in Sonic Casing Depth: 164 ft bgs

Static WL: 18.57 ft brp

RP: 6.0 Stags

Logged By: N. Reynolds (ASST) & Cascade Drilling

Test Date: 1-11-14 Sat

Screened Interval: 180-190 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 174 ft bgs

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer ()	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Total Gallons
13:07	47	18.57 51.6	133.03	63166.5	2.0									
13:10	50	59.5	140.93	63240.7	1.9									
13:13:50	53	68.0	149.43	63247.7	Stop pumping. PwL approaching pump									
14:00:30	100	95.7	77.13	63247.7	Resume pumping @ 3.1 gpm.									81.2
14:05	105	141.5	122.93	63261.9	2.8	19.3	4.8	11,483	10193	7799.6	7.29	-90.1	23.3	activated/milky
14:10	110	149.0	130.43	63269.3	1.5	19.0	2.9	11,513	10189	7820.0	7.31	-103.9	58.1	
14:15	115	156.2	137.63	63276.2	1.4	19.4	2.5	11,346	10141	7684.0	7.31	-113.6	470	
14:20	120	162.4	143.83	63282.7	1.3	20.0	2.1	10,647	9640	7235.2	7.33	-123.4	432	
14:25	125	167.1	148.53	63288.8	1.2	20.8	1.7	10,578	9726	7194.4	7.32	-128.1	426	
14:28:15	128			63292.1	Stop Pumping. PwL approaching pump									125.6
14:53	153	116.0	97.43											
14:55:47	156			63292.1	Resume pumping @ 3.6 gpm.									
15:00	160	145.1	126.53	63298.2	~2.1	20.6	3.1	11079	10282	7738.4	7.32	-118.6	23.0	
15:05	165	160.8	142.23	63308.8	2.1	19.9	1.9	11564	10439	7860.8	7.30	-120.9	31.9	
15:09	169	169.0	150.43	63316.2	2.1	Stop Pumping. PwL approaching pump								149.7
15:59:44	220			63316.2	Resume pumping. Recovering W.L.									
16:00	220	Begin collecting			Water samples for laboratory analysis									
16:02	222				~2 gpm	20.1	0.6	11848	10722	8058	7.31	-139.3	5.57	
16:05	225	148.5												
16:09:05	229			63348.0	Stop Pumping. PwL approaching pump									181.5

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 300 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: ML-3 (Hwy 1 South)
 Sonic Casing Dia: 8 in Sonic Casing Depth: 164 ft bgs
 Static WL: 18.57 ft brp
 RP: 6.0 ftags

Logged By: M. Reynolds (GSSI) & Cascade Drilling
 Test Date: 1-11-14/Sat
 Screened Interval: 180-190 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 174 ft bgs

Time	12:20 Time Step (min)	18.57 Water Level (ft brp)	Drawdown (ft)	63166.5 Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Total gallons
16:22		126.2		63343.4	Recovery W.L.									
16:22:52	Pump on @		~1.9 gpm			20.2	5.0	11163	6253	7752	7.33	-104.5	24.5	
16:28:45				63357.5	Step Pumping									191.0
16:48:11	Pump on @		~2.0 gpm											
16:54					~2.0	19.6	2.9	11438	10196	7697	7.33	-126		
16:57:10	Step Pumping.		PWL by pump	63380.0										213.5
17:15:06	Pump on @		~2 gpm											
17:17						20.2	4.7	10952	9992	7656	7.35	-121.3	92.3	
17:20					1.5	20.3	4.1	11751	10694	7990	7.27	-99.7		
17:23		175.4				19.7	3.7	11704	10507	7942.4	7.28	-105.8	65.2	
17:25:42	Pump off.		Complete Sampling	63397.7										231.2

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 300 mL/min

F-78

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2 w.l.'s

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 1-13-14/Mon

Screened Interval: 103-113 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 95 ft bgs 0.68 constant

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: ML-3 (Hwy 1 South)

Sonic Casing Dia: 8 in Sonic Casing Depth: 82 ft bgs

Static WL: 18.86 ft brp (10.86 ft bgs)

RP: 8.0 ft ags (Top of 8" casing)

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
9:03:55	0	18.86	0	63473.0	Pump on @ 3.5 gpm								
9:11	7	49.9	31.04		2.2	9:11:34	↑ Q slightly						
9:15	11	57.1	38.24		2.4		↑ Q slightly						
9:21	17	67.2	48.34		2.8								11.6
9:55	51	76.3	57.44	63618.0	3.1	19.8	1.3	7420	6687	5045.6	6.90	-116.4	2.91
10:05	61	78.3	59.44	63649.1	3.1	19.7	0.1	7385	6637	5018.4	6.96	-136.3	24.0
10:15	71	79.9	61.04	63680.4	3.1	19.7	0.1	7402	6653	5032.0	6.96	-142.1	4.56
10:25	81	79.8	60.94	63711.8	3.1	19.7	0.1	7394	6650	5025.2	6.95	-145.3	4.77
10:35	91	79.7	60.84	63743.0	3.1	19.8	0.1	7387	6648	5025.2	6.95	-148.0	1.88
10:45	101	79.9	61.04	63774.2	3.1	19.8	0.1	7363	6632	5011.6	6.95	-150.0	2.10
10:55	111	80.3	61.44	63805.5	3.1	19.8	0.1	7368	6629	5011.6	6.95	-151.0	2.03
11:05	121	80.3	61.44	63836.7	3.1	19.8	0.1	7458	6714	5072.8	6.94	-151.6	1.51
11:15	131	80.3	61.44	63867.9	3.1	19.8	0.1	7434	6696	5052.4	6.94	-151.5	1.02
11:25	141	80.3	61.44	63899.0	3.1	19.8	0.1	7447	6709	5066.0	6.94	-151.7	0.96
11:35	151	80.2	61.34	63930.1	3.1	19.8	0.1	7439	6701	5059.2	6.94	-151.4	0.99
11:45	Begin	Collecting	WQ	samples for	lab analysis.								
12:05	181	78.9	60.04	64029.3	3.3	19.8	0.0	7473	6721	5079.6	6.93	-149.4	7.24
12:13	189												2.58
12:18:05	194			64079.7	Pump off.								
13:41	277	20.7	1.84										

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow thru cell = 1218.5 mL/min

Zone #1 As Built

Appendix F

Zone No. _____

ISOLATED AQUIFER ZONE CONSTRUCTION

163.5 to 173.5 ft bgs

8" Sonic casing to 152 ft bgs.
Open annulus above upper bentonite seal.

153 ft bgs

5 ft

158 ft bgs

5.5 ft

163.5 ft bgs

10

-ft Perforated Tool
(0.050 in slot)
4" PVC

173.5 ft bgs

7.5 ft

181 ft bgs

5 ft

186 ft bgs

4 -in Diameter
Drill Pipe
PVC

5 -ft Upper
Bentonite Seal
3/8" SWACO Quick
Seal bentonite

Gravel Pack (CEMEX
Monterey #3)

8 -in Diameter
Pilot Borehole

5 -ft Lower
Bentonite Seal

Cuttings from 201 ft bgs
to 186 ft bgs.

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www.gssiwater.com

Client: RBF Consulting Inc.

Well Name/Number: MPWSP ML-4 (Hwy 1 Middle)

Date: 12-4-13 / Wed

Zone #2 As Built

Zone No. 2

ISOLATED AQUIFER
ZONE CONSTRUCTION

74.5 to 84.5 ft bgs

8" Somic casing to 52 ft bgs
Open annulus above upper
bentonite seal

62 ft bgs

7.5'

69.5 ft bgs

5'

74.5 ft bgs

10 -ft Perforated Tool
(0.050 in slot)
4" PVC

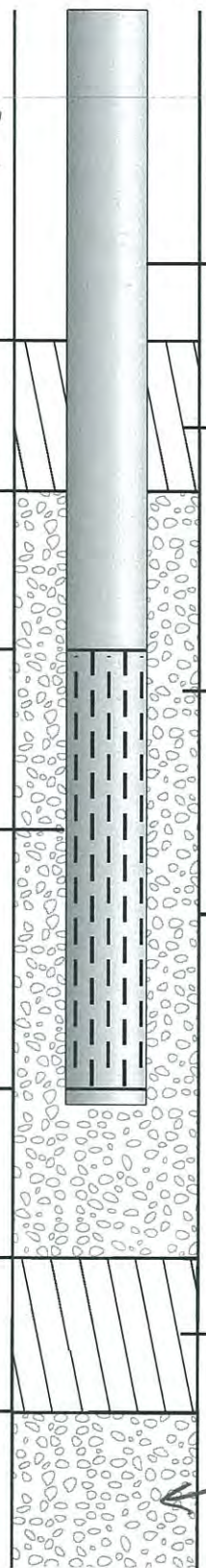
84.5 ft bgs

5.5'

90 ft bgs

5.5'

95.5 ft bgs



4 -in Diameter
PVC

7.5 -ft Upper
Bentonite Seal

3/8" SWALO Quick
Seal Bentonite

Gravel Pack (CEMEX
Monterey #3)

8 -in Diameter
Pilot Borehole

~69 ft
Damp

5.5 -ft Lower
Bentonite Seal

#212 Sand 130 - 95.5
ft bgs



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Client: RBF Consulting Inc.

Well Name/Number: MPWSP ML-4 (Hwy 1 Middle)

Date: 12-6-13 / Fri

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: ML-4 (Hwy 1 Middle)
 Sonic Casing Dia: 8 in Sonic Casing Depth: 152 ft bgs
 Static WL: 35.0 ft brp (27.33 ft bgs)
 RP: 7.67 ftags (top of casing)

Logged By: N. Reynolds (GSSI) & Cascade Drilling
 Test Date: 12-4-13 / Wed
 Screened Interval: 163.5 - 173.5 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 153.5 ft bgs
 Note: TDS constant Set to 0.68

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
14:21:33	0	35.0	0	36581.3	42.5	Pump on.	↓	↓	↓	↓	↓	↓	↓
14:26		113.8	78.8	-	17.6								
14:29				↑ Q to	18.4								
14:30		105.3	70.3	↑ Q to	18.5								
14:35		108.6	73.6	↑ Q to	20.2								
14:38		118.0	83.0	↑ Q to	22.7								
14:45		123.25	88.25		21.9								
14:58		123.4	88.40		22.0								
15:00		126.0	91.0	↑ Q to	22.8								
15:17				↑ Q to	~24								
15:35	73	135.2	100.2	38251.1	24.7	17.6	1.3	30316	26034	20617.60	6.74	49.6	5.13
15:45	83	133.8	98.8	38497.1	24.6	17.6	0.6	30410	26103	20678.8	6.75	17.2	5.63
15:55	93	136.9	101.9	38742.5	24.5	17.6	0.4	30298	26003	20746.8	6.76	-1.7	8.66
16:05	103	136.5	101.5	38993.7	25.1	17.6	0.1	30780	26410	20930.4	6.77	-10.8	5.11
16:15	113	136.2	101.2	39244.8	25.1	17.5	0.1	30802	26416	20944.0	6.77	-17.3	6.84
16:25	123	136.3	101.3	39495.8	25.1	17.5	0.0	30824	26422	20957.6	6.77	-24.3	4.67
16:35	133	135.6	100.6	39746.4	25.1	17.5	0.0	30832	26443	20964.4	6.77	-31.2	3.23
16:45	143	134.4	99.4	39996.0	25.0	17.5	0.0	30845	26438	20971.2	6.77	-37.4	5.16
16:55	153	135.5	100.5	40246.5	25.1	17.5	0.0	30853	26436	20978.0	6.78	-43.4	5.51
17:17	175	135.8	100.8	40799.8	25.2	17.5	0.1	30860	26445	20984.8	6.78	-53.8	3.89

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

Flow through cell 1190.5 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: ML-4

Test Date: 12-4-13 / Wed

Sonic Casing Dia: 8 in Sonic Casing Depth: 152 ft bgs

Screened Interval: 163.5-173.5 ft bgs

Static WL: 35.0 ft brp

Reference Point Elevation: _____ ft amsl

RP: 7.67 ftags (Top of casing)

Pump Depth: 153.5 ft bgs

0.68 constant

Time	Time Step (min)	^{35.0} Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
17:31	189	136.0	101.0	41152.8	25.2	17.5	0.1	30861	26473	20984.8	6.78	-60.1	3.20
17:40	198	136.2	101.2	41379.5	25.2	17.5	0.1	30865	26464	20984.8	6.78	-62.5	3.88
17:50	208	135.9	100.9	41631.9	25.2	17.5	0.1	30871	26469	20991.6	6.78	-64.8	3.77
18:00	218	136.2	101.2	41884.3	25.2	17.5	0.1	30856	26458	20984.8	6.78	-68.4	2.04
18:10	228	136.0	101.0	42136.2	25.2	17.5	0.1	30873	26468	20991.6	6.78	-70.1	2.94
18:20	238	135.7	100.7	42388.0	25.2	17.5	0.1	30873	26476	20991.6	6.78	-72.7	3.24
18:30	248	135.9	100.9	42640.0	25.2	17.5	0.1	30869	26467	20984.8	6.78	-75.3	4.05
18:40	258	135.2	100.2	42891.6	25.2	17.5	0.1	30865	26472	20984.8	6.78	-74.7	6.57
18:50	268	134.0	99.0	43142.5	25.1	17.5	0.1	30871	26478	20991.6	6.78	-76.5	5.45
19:00	278	133.7	98.7	43389.6	24.7	17.5	0.1	30865	26467	20991.6	6.78	-77.9	4.63
19:10	288	133.7	98.7	43637.1	24.8	17.5	0.1	30871	26437	20991.6	6.78	-80.0	9.43
19:20	298	134.1	99.1	43884.6	24.8	17.5	0.1	30867	26440	20991.6	6.78	-81.6	5.42
19:30	308	133.9	98.9	44131.9		17.5	0.1	30866	26451	20991.6	6.78	-83.1	9.59
19:37	315			44305.0	Turn off pump. Turbidity unstable. Will resume tomorrow.								
					7,724 gallons pumped.								

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Turb: +/- 10%

Cond: +/- 3%

DO: +/- 10%

ORP: +/- 10 mV

Desired Flow Rate: 100 to 300 mL/min

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**ISOLATED AQUIFER
ZONE SAMPLING DATA SHEET**

Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Borehole Name/Number: ML-4

Test Date: 12-5-13 / thu

Sonic Casing Dia: 8 in Sonic Casing Depth: 152 ft bgs

Screened Interval: 163.5 - 173.5 ft bgs

Static WL: 36.35 ft brp (28.68 ft bgs)

Reference Point Elevation: _____ ft amsl

RP: 7.67 ft ays (top of casing)

Pump Depth: 153.5 ft bgs 0.68 constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
7:56:04	0	36.35	0	44299.6	Pump on @ 21.3 gpm.								
7:59	3	92.0	55.65										
8:13	17	93.2	56.85		17.9								
8:17	21			↑ Q to	18.9								
8:19	23			↑ Q to	19.6								
8:22	26	101.4	65.05	↑ Q to	20.6								
9:00	64	103.1	66.75	45544.2	20.3	17.7	0.1				6.8	42.7	0.62
9:30	recalibrate PSI pH & Sp. Cond.												
09:40	104	103.5	67.15	46348.5	20.1	17.7	0.0	30680	26411	20855.6	6.77	16.8	0.39
09:50	114	103.3	66.95	46550.7	20.2	17.8	0.0	30678	26444	20855.6	6.76	2.8	0.50
10:00	124	103.7	67.35	46753.7	20.3	17.8	0.0	30674	26436	20855.6	6.76	-6.8	0.50
10:10	134	103.6	67.25	46956.7	20.3	17.8	0.0	30671	26437	20855.6	6.76	-13.8	0.48
10:25	Collect Water Quality samples for laboratory analysis. Place samples on ice.												
11:17	205	104.5	68.15	48324.1	20.4	17.8	0.0	30669	26448	20855.6	6.76	-39.5	0.63
11:24:40	~209			48479.1	Pump off.			Total Volume pumped today = 4179.5 gallons					

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Turb: +/- 10%

Cond: +/- 3%

DO: +/- 10%

ORP: +/- 10 mV

Desired Flow Rate: 100 to 500 mL/min

F-84

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2

Client: RBF/MPWSP - Exploratory Borehole Drilling
 Borehole Name/Number: ML-4 (Hwy 1 Middle)
 Sonic Casing Dia: 8 in Sonic Casing Depth: 52 ft bgs
 Static WL: 35.8 ft brp (27.8 ft bgs)
 RP: 8.0 ft ags (top of 8")

Logged By: N. Reynolds (GSSI) & Cascade Drilling
 Test Date: 12-6-13 / Fri
 Screened Interval: 74.5 - 84.5 ft bgs
 Reference Point Elevation: _____ ft amsl
 Pump Depth: 69 ft bgs

0.68 Constant

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
10:00	0	35.8	0	48465.4	9.5	Pump on.							
10:04	4	48.8	13.0	-	9.5								
10:07	7	49.6	13.8	-	9.1								
10:09	9	51.7	15.9	-	10.5	(↑ @ 10:09)							
10:33	33	59.0	23.2	48855.7	14.4	17.4	0.7	11,694	9995	7962.8	6.65	-12.9	22.5
10:40	40	59.5	23.7	48956.3	14.4	17.4	0.5	12,042	10,295	8187.2	6.64	-34.4	15.5
11:15	75	61.1	25.3	49458.0	14.3	17.6	0.3	12,717	10,914	8649.6	6.59	-61.3	3.38
11:25	85	61.6	25.8	49601.5	14.4	17.6	0.2	12,780	10,965	8697.2	6.59	-64.6	2.75
11:35	95	62.0	26.2	49745.1	14.4	17.5	0.2	12,845	11,025	8731.2	6.58	-69.4	1.74
11:45	105	62.3	26.5	49888.5	14.3	17.6	0.1	12,866	11,058	8765.2	6.57	-73.5	1.36
11:55	115	62.5	26.7	50031.9	14.3	17.7	0.1	12,899	11,100	8765.2	6.57	-79.7	1.15
12:05	125	62.8	27.0	50175.2	14.3	17.7	0.1	12,914	11,131	8792.4	6.57	-86.1	0.92
12:15	135	63.1	27.3	50318.7	14.4	17.7	0.1	12,933	11,141	8799.2	6.57	-92.8	0.94
12:25	Collect	WQ samples for laboratory analysis. Samples placed on ice. Note: water has sulfur odor.											
13:01	181	64.2	28.4	50986.1	14.5	17.7	0.1	12,987	11,168	8840.0	6.56	-124.6	0.78
13:10	190	64.4	28.6										
13:11:56-192		Pump off.		51141.8	Total Volume pumped = 2,676.4 gallons								
13:51		40.75	4.95										
14:20		40.10	4.30										

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 300 mL/min

Flow Rate (4SI) = 1371 mL/min

Zone #1 As Built

Zone No. 1

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

152 to 162 ft bgs

8" Sonic Casing to
136 ft bgs. Open annulus
above upper bentonite
seal.

142 ft bgs

5'

147 ft bgs

5'

152 ft bgs

10

-ft Perforated Tool
(0.050 in slot)
4" PVC

162 ft bgs

5'

167 ft bgs

5'

172 ft bgs

TD 200 ft bgs

4 -in Diameter
Drill Pipe
PVC

5 -ft Upper
Bentonite Seal

3/8" SWACO Quick
Seal bentonite
chips. (1.5 bags)

Gravel Pack (CEMEX
Monterey #3)
13 bags

8 -in Diameter
Pilot Borehole

5 -ft Lower
Bentonite Seal
(2 bags)

Fill from drilling to 172 ft bgs

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Client: RBF Consulting Inc.

Well Name/Number: MPWSP Exploratory Borehole ML-6

Date: 11-21-13 / Thu

Zone #2 - As-Built

Appendix F

Zone No. 2

**ISOLATED AQUIFER
ZONE CONSTRUCTION**

100 to 110 ft bgs

8" sonic casing to 85 ft bgs.
Open annulus above upper
bentonite seal.

90 ft bgs

5'

95 ft bgs

5'

100 ft bgs

10 -ft Perforated Tool
(0.050 in. slot)
4" PVC

110 ft bgs

5'

115 ft bgs

5'

120 ft bgs

142 ft bgs

4 -in Diameter
Drill Pipe
PVC

-ft Upper
Bentonite Seal
3/8" SWACO Quick
Seal bentonite
chips. 3 bags

Gravel Pack (CEMEX
Monterey #3
14 bags)

8 -in Diameter
Pilot Borehole

5 -ft Lower
Bentonite Seal
4 bags

CEMEX 8 mesh sand
from 142 -120 ft bgs

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Client: RBF Consulting Inc

Well Name/Number: MPWSP ML-6 (MBARI)

Date: 11-22-13/Fri & 11-23-13/Sat

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling

Logged By: N. Reynolds (GSSI)

Borehole Name/Number: ML-6 (MBARI)

Test Date: 11-22-13 / Fri

Sonic Casing Dia: 8 in Sonic Casing Depth: 136 ft bgs

Screened Interval: 152-162 ft bgs

Static WL: 15.74 ft brp

Reference Point Elevation: _____ ft amsl *Note: TDS Constant is 0.65*

RP: 7.65

Pump Depth: 143 ft bgs

Time	Time Step (min)	15.74 Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
12:26	193	120.2	104.46	22381.0	42.9	16.6	0.1	48043	40368	31226	6.63	-73.9	3.23
12:36	203	120.05	104.31	22810.0	42.9	16.5	0.1	48065	40302	31245.5	6.63	-77.4	1.71
12:46	213	120.2	104.46	23238.5	42.9	16.6	0.1	48074	40404	31246.5	6.63	-79.5	2.45
12:56	223	120.4	104.66	23666.4	42.8	16.6	0.1	48074	40377	31246.5	6.63	-81.6	1.48
13:06	233	120.4	104.66	24094.0	42.8	16.6	0.1	48095	40388	31258.5	6.64	-85.1	2.81
13:16	243	120.5	104.76	24521.5	42.8	16.5	0.1	48144	40356	31284.5	6.63	-88.0	2.24
13:26	253	120.4	104.66	24949.0	42.8	16.5	0.1	48132	40389	31284.5	6.63	-90.5	1.26
13:35	Sample	for laboratory		WA analysis:									
14:16		120.70	104.96	27087.3	42.8	16.4	0.1	48218	40339	31343	6.62	-104.6	1.17
14:22:23				27358.0	Pump off.								
								Total gallons pumped = 11,938.5					

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Turb: +/- 10%

Cond: +/- 3%

DO: +/- 10%

ORP: +/- 10 mV

Desired Flow Rate: 100 to 500 mL/min

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**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 1

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: ML-6 (MBARI)

Sonic Casing Dia: 8 in Sonic Casing Depth: 136 ft bgs

Static WL: 15.74 ft brp 8.09 ft bgs

RP: 7.65 ft aqs

taken by Cascade

Logged By: N. Reynolds (GSSI) & Cascade

Test Date: 11-22-13 / Fri

Screened Interval: 152-162 ft bgs

Reference Point Elevation: _____ ft amsl

Pump Depth: 143 ft bgs

VSE Professional plus.

Note: TDS Constant is 0.65

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gal)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
09:13	0	15.74	0	15519.5		09:13	Pump on						
09:39		54.4	38.66		19.5								
09:54:35		63.1	47.36		~25.0	↑Q							
10:05		68.0	52.26		23.9								
10:06						↑Q							
10:10		76.0	60.26		~29	↑Q							
10:13						↑Q							
10:23	70	116.1	100.36		43.2								
10:26	73			17226.5	~43.2								
10:36	83	118.1	102.36	17658.0	43.2	16.7	0.1	47904	40276	31141.5	6.61	-8.6	11.6
10:46	93	118.8	103.06	18088.5	43.1	16.6	0.4	47463	39864	30849	6.62	-19.6	6.51
10:56	103	119.2	103.46	18518.5	43.0	16.6	0.3	47565	39992	30927	6.62	-34.1	5.73
11:06	113	119.6	103.86	18948.0	43.0	16.6	0.2	47726	40094	31031	6.62	-42.5	5.62
11:16	123	119.9	104.16	19377.3	42.9	16.6	0.2	47791	40169	31063.5	6.63	-49.1	7.49
11:26	133	120.0	104.26	19806.8	43.0	16.5	0.1	47894	40120	31135	6.63	-55.1	8.40
11:36	143	120.0	104.26	20236.4	43.0	16.5	0.1	47920	40161	31148	6.62	-59.2	3.53
11:46	153	120.2	104.46	20665.5	42.9	16.5	0.1	47975	40185	31180.5	6.62	-64.5	8.44
11:56	163	120.0	104.26	21094.5	42.9	16.5	0.1	47990	40231	31193.5	6.63	-64.6	4.55
12:06	173	120.0	104.26	21523.0	42.9	16.5	0.1	48024	40265	31219.5	6.63	-67.1	8.31
12:16	183	120.3	104.56	21952.0	42.9	16.6	0.1	48026	40279	31213.0	6.63	-70.1	2.35

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Cond: +/- 3%

ORP: +/- 10 mV

Turb: +/- 10%

DO: +/- 10%

Desired Flow Rate: 100 to 500 mL/min

1230 mL/min through flowthrough cell.

GEOSCIENCE

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**CONFIDENTIAL
 DRAFT**

Subject to Revision

**ISOLATED AQUIFER
 ZONE SAMPLING DATA SHEET**

Zone No. 2

Client: RBF/MPWSP - Exploratory Borehole Drilling

Borehole Name/Number: ML-6 (MBARI)

Sonic Casing Dia: 8 in Sonic Casing Depth: 85 ft bgs

Static WL: 15.00 ft brp 9.58 ft bgs

RP: 5.42 ft ags (TOC)

Logged By: N. Reynolds (GSSI) & Cascade Drilling

Test Date: 11-23-13 / SAT

Screened Interval: 100-110 ft bgs

Reference Point Elevation: _____ ft amsl *Note: TDS Constant Set to 0.68*

Pump Depth: 90 ft bgs

Time	Time Step (min)	Water Level (ft brp)	Drawdown (ft)	Totalizer (gallons)	Pumping Rate (gpm)	Temp (°C)	DO (mg/L)	Specific Cond. (µS/cm)	Cond. (µS/cm)	TDS (mg/L)	pH	ORP (mV)	Turbidity (NTU)
10:19:54	0	15.00	-	27347.0	Pump on @ 36.4 gpm								
10:49:43	↑Q	to 31.8 gpm	PWL = 35.6 ft brp										
10:52	↑Q	to 40.3 gpm	PWL = 40.1 ft brp										
10:54:50	↑Q	(value all the way open)	to 49.6 gpm	PWL = 47.4 ft brp									
11:00	40	48.6	33.6	28472.3	49.3								
11:10	50	49.2	34.2	28979.0	50.7								13.0
11:20	60	49.6	34.6	29464.5	48.6								7.75
11:30	70	49.8	34.8	29960.0	49.6	16.0	0.3	42484	35193	28893.2	6.56	75.3	5.03
11:40	80	49.9	34.9	30455.2	49.5	16.0	0.1	42490	35191	28920.4	6.57	67.8	3.24
11:50	90	50.1	35.1	30950.5	49.5	15.9	0.1	42523	35185	28927.2	6.58	69.0	2.98
12:00	100	50.2	35.2	31445.3	49.5	15.9	0.1	42557	35194	28947.6	6.58	69.1	3.58
12:10	110	50.3	35.3	31940.2	49.5	15.9	0.1	42601	35210	28961.2	6.58	68.8	3.59
12:20	120	50.4	35.4	32435.3	49.5	15.9	0.1	42616	35223	28981.6	6.58	67.4	2.48
12:30	130	50.5	35.5	32930.3	49.5	15.9	0.1	42626	35209	28988.4	6.58	65.6	1.80
12:40	140	50.6	35.6	33425.5	49.5	15.9	0.1	42651	35243	28988.4	6.57	63.5	1.86
12:51	151	50.5	35.5	33969.5	49.5	15.9	0.1	42650	35246	29002.0	6.58	60.6	1.73
13:00	Collect	W.Q. samples for laboratory analysis, including MBARI's samples. Samples placed on ice.											
13:36	196	50.8	35.8	36194.4	49.4	15.9	0.1	42650	35274	29042.8	6.57	42.2	1.16
1344	204			36588.5	Pump off.								
1445		16.8											

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

- pH: +/- 0.1 unit
- Cond: +/- 3%
- ORP: +/- 10 mV

- Turb: +/- 10%
- DO: +/- 10%

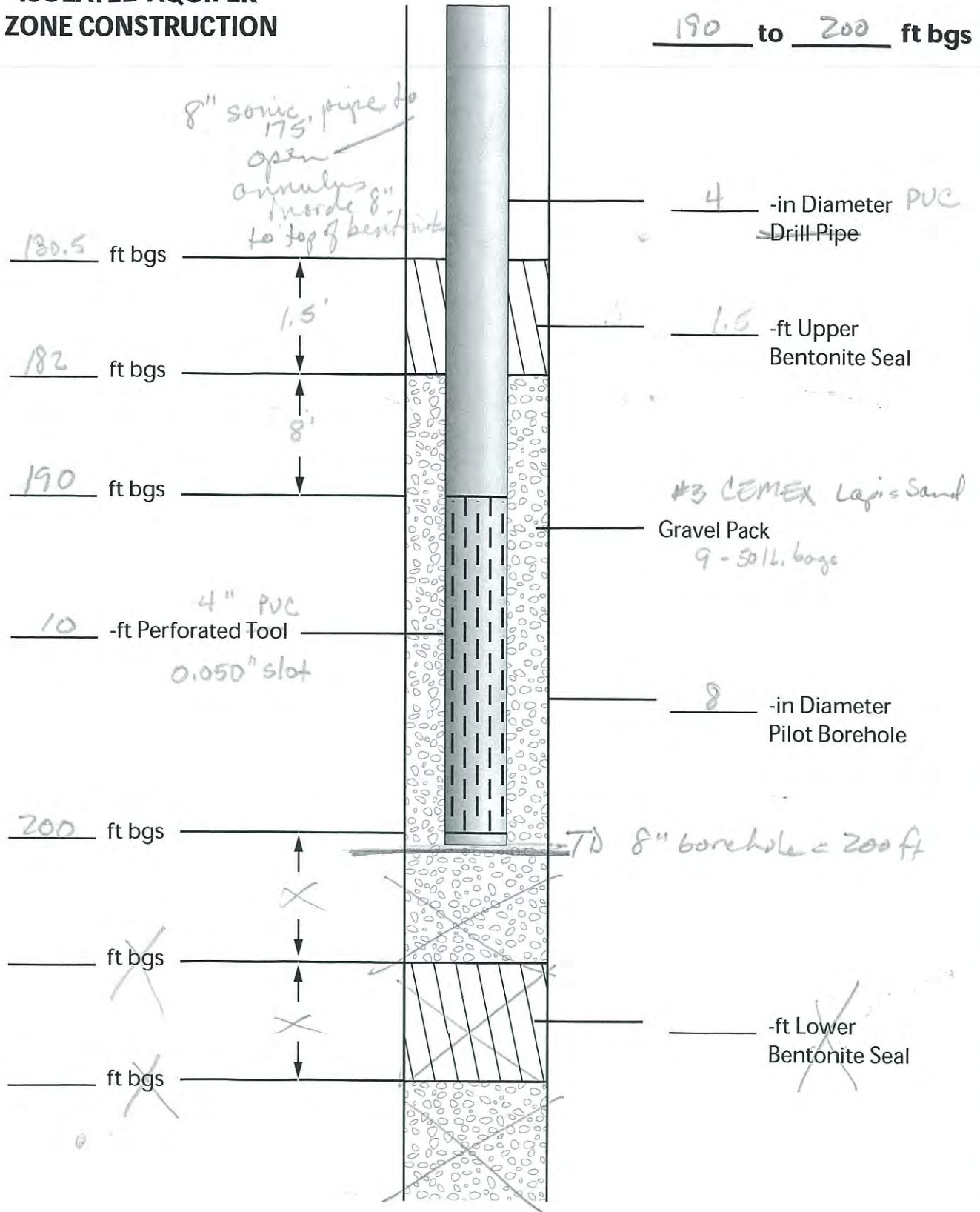
Desired Flow Rate: 100 to 500 mL/min

Flow through cell 1223.5 mL/min

ISOLATED AQUIFER ZONE CONSTRUCTION

Zone No. PR-1 Zone 1

190 to 200 ft bgs



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www.gssiwater.com

Client: RBF/MPWSP Expl Boreholes

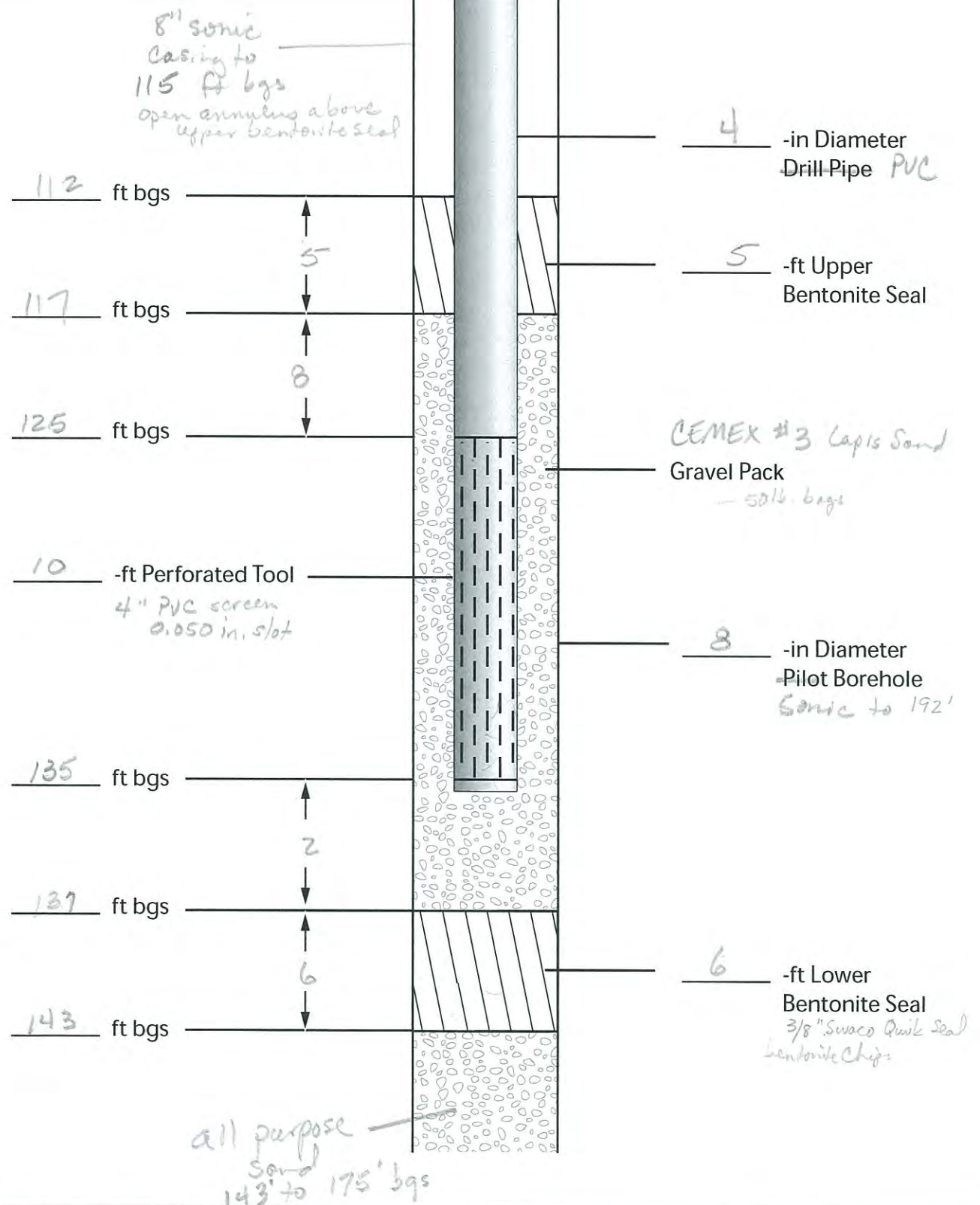
Well Name/Number: PR-1 Zone 1 (190'-200' bgs)

Date: 24-Sep-13

ISOLATED AQUIFER ZONE CONSTRUCTION

Zone No. PR-1 Zone 2

125 to 135 ft bgs



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Client: RBF/MPWSP Expl. Boreholes

Well Name/Number: PR-1 Zone 2 (125-135' bgs)

Date: 25-Sep-13

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 P.O. Box 220, Claremont, CA 91711
 Tel: (909) 451-6650 Fax: (909) 451-6638
 www.gssiwater.com

WELL SAMPLING DATA SHEET

Client: RBF/MAWSP Logged By: Diana Smith
 Well Name/Number: PR-1 Zone 1 (190-200' bgs) Test Date: 24 Sep-13
 Well Dia: 4 in Well Depth: 200 ft bgs Screened Interval: 190-200 ft bgs
 Static WL: 12 ft brp Reference Point Elevation: 15 ft amsl
 RP: +6 Pump Depth: 120' ft bgs
8" sonic casing to 175' bgs.

Time	Water Level (ft brp)	Temp (°C)	Cond (µS/cm)	TDS (g/L)	Sal (ppt)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)
4:12 pm									
4:16		16.9	1416 1206	923	0.71	5.4	6.85	-45.3	5.73
4:24	see Pumping Test Data Sheet	16.4	1381 1158	897	0.69	-	6.86	-45.2	5.52
4:30		16.3	1363 1136	884	0.69	3.5	6.85	-62.2	3.66
4:45		16.3	1336 1115	871	0.67	3.4	6.85	-52.9	1.80
5:05		16.6	1304 1095	845	0.66		6.87	-	1.65
5:20		16.5	1296 1080	845	0.65		6.87	-50.5	0.89
5:32	Filed sample bottles Pump off								

Sampling Method:

Casing Volume:

Tubing Volume:

Volume Pumped Before Sampling:

Flow Rate:

Stabilization Criteria:

3 to 5 minute recordings with 3 consecutive readings within:

pH: +/- 0.1 unit

Turb: +/- 10%

Cond: +/- 3%

DO: +/- 10%

ORP: +/- 10 mV

Desired Flow Rate: 100 to 500 mL/min

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WELL SAMPLING DATA SHEET

8" sonic casing to 115' bgs

Client: RBF/MPWSA
Well Name/Number: PR-1 Zone 2 (125-135' bgs)
Well Dia: 4 in Well Depth: 135 ft bgs
Static WL: 4.7 ft brp
RP: +7.2
Logged By: Diane Smith
Test Date: 25-Sep-13
Screened Interval: 125-135 ft bgs
Reference Point Elevation: 16.2 ft amsl
Pump Depth: 105 ft bgs

Time	Water Level (ft brp)	Temp (°C)	Cond (µS/cm)	TDS (g/L)	Sal (ppt)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)
4:00	11.9								
4:07	Pump on								
4:10	-	15.5	53173 44221	34541	35.09	-	6.59	-120.1	4.20
4:18	30.8	15.6	53490 44232	34833	35.49	-	6.62	-135	3.17
4:23	31.0								
4:26	-	15.6	53625 43926	34853	35.43	-	6.64	-130.9	2.57
4:34	31.3	15.6	53053 44111	34482	35.02	-	6.65	-88.0	2.37
4:40	31.4	15.5	53449 44183	34736	35.32	-	6.66	-58.2	2.27
4:45	31.6	15.4	53620 44410	34853	35.45	-	6.66	-110.8	1.56
4:55	31.7	15.5	54148 44377	35204	35.83	-	6.65	-119.7	1.34
5:00	31.8	15.4	53824 44074	34911	35.48	-	6.67	-28.0	1.17
5:08	31.1	15.4	53854 44014	35002	35.60	-	6.65	-73.9	264 cloudy
5:15	36.5	15.3	53790 43988	34931	35.49	-	6.66	-62.4	75.8
5:20	-	15.3	54040 44016	35119	35.73	-	6.65	-63.5	36.7
5:25	33.3	15.3	52943 43827	35009	35.60	-	6.66	-34.1	26.4
5:30	38.8	15.3	53664 43871	34768	35.30	-	6.66	-18.0	19.7
5:35	39.1	15.3	53674 43862	34814	35.35	-	6.65	-46.8	14.7
5:40	39.3	15.3	53739 43782	34918	35.50	-	6.64	-53.3	12.3
5:45	39.7	15.3	53610 43775	34866	35.46	-	6.65	-19.4	10.2
5:50	12.8	-	-	-	-	-	-	-	-
6:00	12.8	-	-	-	-	-	-	-	-

Sampling Method: Stabilization Criteria:
Casing Volume: 3 to 5 minute recordings with 3 consecutive readings within:
Tubing Volume: pH: +/- 0.1 unit Turb: +/- 10%
Volume Pumped Before Sampling: Cond: +/- 3% DO: +/- 10%
Flow Rate: ORP: +/- 10 mV Desired Flow Rate: 100 to 500 mL/min

GEOSCIENCE

Appendix F

PUMPING TEST DATA SHEET

GEOSCIENCE Support Services, Inc.
 P.O. Box 220, Claremont, CA 91711
 Tel: (909) 451-6650 Fax: (909) 451-6638
 www.gssiwater.com

8" source casing to 115' bgs

Client: RBF

Logged By: Diane Smith

Well Name: PR-1 Zone 2

Test Date: 25-Sep-13

Circle Well Type: Pumping Observation (r = ft)
 Circle Test Type: Step Drawdown Constant Rate Recovery Development
 Reference Point Elevation: +7.2 ft Pump Depth: 105 ft bgs
 Static Water Level Depth: 4.7 ft bgs Totalizer Units: gal

Time of Day	Time min Step	Time min Total	Depth to Water (ft brp)	Draw-down (ft)	Pumping Rate (gpm)	Sand Content		Totalizer (<u>gal</u>)	Remarks and other data
						Time Interval	ppm		
4:00	-		11.9	-	-			03790	
4:07	0		-	-	-			-	Pump On
4:10	3		-	-	-			-	cloudy, no odor
4:18	8		30.8	18.9	30			419 04150 + 1 min	clear, foams in cup
4:23	16		31.0	19.1	30			4260	initials
4:34	27		31.3	19.4	30			4610	
4:40	33		31.4	19.5	-			4800	
4:45	38		31.6	19.7	30			4952	
4:55	48		31.7	19.8	-			5220	
5:00	53		31.8	19.9	30			5380	
5:03	56								Inc Q to 50 gpm
5:08	61		51.1	39.2	50			5700	cloudy
5:15	68		56.5	44.6	50			-	
5:20	73		-	-	50			6320	sl. cloudy
5:25	78		53.3	41.4	-			6560	sl. cloudy
5:30	83		58.8	46.9	-			6780	
5:35	88		59.1	47.2	50			7080	
5:40	93		59.3	47.4	50			7310	
5:45	98		59.7	47.8	50			7560	v. sl. cloudy, Pump off
5:53	8		12.8	1.2	-			-	Recovery
6:00	15		12.8	1.2	-			-	"

APPENDIX G
Groundwater Quality Laboratory Reports



**APPENDIX G:
GROUNDWATER QUALITY
LABORATORY REPORTS**

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Cal Am Water Company
 Travis Peterson
 511 Pacific Lodge Road, Suite 100
 Pacific Grove, CA 93950

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net

ELAP Certification Number: 2385

Lab Number: AB12002

Collection Date/Time: 2/18/2014 12:15 Sample Collector: NATHAN REYNOL
 Submittal Date/Time: 2/18/2014 14:37 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-B1WQ Zone #1 (274-284 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	118		2		2/24/2014	LRH
Aluminum, Total	EPA200.8	ug/L	77		10	1000	2/20/2014	SM
Ammonia-N, Dissolved	SM4500NH3 D	mg/L	Not Detected		0.05		2/25/2014	LH
Arsenic, Total	EPA200.8	ug/L	38		1	10	2/20/2014	SM
Barium, Dissolved	EPA200.8	ug/L	138		10		2/20/2014	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	144		10		2/25/2014	SM
Boron, Dissolved	EPA200.7	mg/L	0.7		0.05		2/21/2014	DC
Bromide, Dissolved	EPA300.0	mg/L	41		0.1		2/19/2014	DC
Calcium	EPA200.7	mg/L	2718		0.5		2/21/2014	DC
Calcium, Dissolved	EPA200.7	mg/L	2718		0.5		2/21/2014	DC
Carbamates by HPLC (EPA 531)	EPA531	ug/L	Attached (ND) E				2/25/2014	BSK
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		2/25/2014	SM
Chloride, Dissolved	EPA300.0	mg/L	14184		1		2/19/2014	DC
Chlorinated Pesticides and PCB (EP	EPA508	ug/L	Attached (ND) E				2/24/2014	WECK
Color, Apparent (Unfiltered)	SM2120B	Color Units	7		3	15	2/19/2014	LRH
Copper, Total	EPA200.8	ug/L	15		4	1300	2/20/2014	SM
DBCP & EDB	EPA504.1	ug/L	Attached (ND) E				2/20/2014	BSK
Dioxin	EPA-5 1613B	pg/L	Attached (ND) E				2/22/2014	CERES
Diquat (EPA 549)	EPA549	ug/L	Attached (ND) E				2/25/2014	BSK
Endothall	EPA548.1	ug/L	Attached (ND) E				2/20/2014	BSK
Fluoride, Dissolved	EPA300.0	mg/L	0.2		0.1		2/19/2014	DC
Glyphosate	EPA547	ug/L	Attached (ND) E				2/25/2014	BSK
Hardness (as CaCO3)	SM2340B	mg/L	11070		10		2/24/2014	DH
Hydroxide	SM2320B	mg/L	Not Detected		5		2/25/2014	SM
Iodide	EPA9056M	ug/L	Attached (ND) E		10		2/20/2014	WECK
Iron	EPA200.7	ug/L	362		10	300	2/21/2014	DC
Iron, Dissolved	EPA200.7	ug/L	362		10	300	2/21/2014	DC
Kjehldahl Nitrogen, Dissolved	SM4500-NH3 B,	mg/L	Not Detected		0.5		2/19/2014	FS
Lithium	EPA200.8	ug/L	218		1		2/20/2014	SM
Magnesium	EPA200.7	mg/L	1040		0.5		2/21/2014	DC
Magnesium, Dissolved	EPA200.7	mg/L	1041		1		2/21/2014	DC
Manganese, Dissolved	EPA200.7	ug/L	127		10	50	2/21/2014	DC
MBAS (Surfactants)	SM5540C	mg/L	Not Detected		0.05	0.50	2/20/2014	DC
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	2/19/2014	DC
Nitrate+Nitrite as N	EPA300.0	mg/L	Not Detected		0.1		2/19/2014	DC
Nitrite as NO2-N, Dissolved	EPA300.0	mg/L	Not Detected		0.1		2/19/2014	DC
Odor Threshold at 60 C	SM2150B	TON	1		1	3	2/19/2014	LRH
o-Phosphate-P, Dissolved	Hach 8190	mg/L	0.05		0.1		2/24/2014	DH
pH (Field Test)	SM4500-H+B	pH	6.54				2/18/2014	NR

Lab Number: **AB12002**

Appendix G

Collection Date/Time: 2/18/2014 12:15
Submittal Date/Time: 2/18/2014 14:37Sample Collector: NATHAN REYNOL
Sample ID: GEOSCIENCE

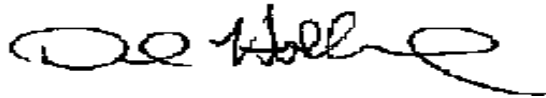
Coliform Designation:

Sample Description: CX-B1WQ Zone #1 (274-284 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
pH (Laboratory)	SM4500-H+B	pH (H)	6.7				2/18/2014	HM
Phenoxy Acid Herbicides (515.3)	EPA515.3	ug/L	Attached (ND)	E			2/23/2014	BSK
Phosphorus, Dissolved	HACH 8190	mg/L	0.06		0.03		2/24/2014	DH
Potassium, Dissolved	EPA200.7	mg/L	53		0.1		2/21/2014	DC
QC Anion Sum x 100	Calculation	%	439.66				2/25/2014	DH
QC Cation Sum x 100	Calculation	%	423.27				2/25/2014	DH
QC Ratio TDS/SEC	Calculation		0.68				2/26/2014	DH
Reg. Org. Compounds (EPA 525)	EPA525	ug/L	Attached (ND)	E			2/22/2014	BSK
Silica as SiO ₂ , Dissolved	EPA200.7	mg/L	34		0.5		2/21/2014	DC
Sodium, Dissolved	EPA200.7	mg/L	4612		0.5		2/21/2014	DC
Specific Conductance (E.C)	SM2510B	umhos/cm	36940		1	900	2/19/2014	HM
Specific Conductance (E.C) (Field)	SM2510B	umhos/cm	36601		1		2/18/2014	NR
Strontium, Dissolved	EPA200.8	ug/L	16834		5		2/20/2014	SM
Sulfate	EPA300.0	mg/L	1760		1	250	2/19/2014	DC
Temperature (Field)	SM2550	° C	18.9				2/18/2014	NR
Total Diss. Solids	SM2540C	mg/L	25200		10	500	2/19/2014	HM
Turbidity	EPA180.1	NTU	1.6		0.05	5.0	2/19/2014	LRH
Turbidity (Field)	EPA180.1	NTU	0.57		0.05		2/18/2014	NR
Volatile Org. Compounds (524)	EPA524	ug/L	Attached (ND)	E			2/19/2014	BSK
Zinc, Total	EPA200.8	ug/L	99		10	5000	2/20/2014	SM

Sample Comments: Ref AB11850

Report Approved by:



David Holland, Laboratory Director

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12002**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	4612	0.04350	200.62
Potassium	53	0.02558	1.36
Calcium	2718	0.04990	135.63
Magnesium	1041	0.08229	85.66
NH3-N	0	0.07143	0.00
		SUM	423.27

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	118	0.02000	2.36
Sulfate	1760	0.02082	36.64
Chloride	14184	0.02821	400.13
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0	0.07138	0.00
Phosphate-P	0.1	0.01031	0.00
Fluoride	0.2	0.05264	0.01
Bromide	41.0	0.01252	0.51
		SUM	439.66

ANION-CATION BALANCE: **-2** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	36940	
Cation Sum X 100	42327	115%
Anion Sum X 100	43966	119%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	19.1
Ca+Mg+Na	421.91
HCO3/Ca	0.02
dS/m	36.94
Value Table II	1.5
SAR adj	30.4

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

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 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

pH QC Summary (SM 4500 H+)

Date Analyzed: 2/19/2014

	Value (pH Units)	Result (pH Units)	% Rec	Acceptance Criteria %Rec
IPC	6.86	6.86	100.0	95-105

Sample ID	Sample (pH Units)	Sample Dup (pH Units)	% RPD	Acceptance Criteria % RPD
AB11937	7.5	7.5	0.0	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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Specific Conductance QC Summary (SM 2510B)

Date Analyzed: 2/19/2014

	Value (umhos/cm)	Result (umhos/cm)	% Rec	Acceptance Criteria %Rec
IPC	1412	1412	100.0%	95-105

Sample ID	Sample (umhos/cm)	Sample Dup (umhos/cm)	% RPD	Acceptance Criteria % RPD
AB11875	1125	1133	0.7%	10
AB11878	1542	1554	0.8%	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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Turbidity QC Summary (EPA 180.1)

Date Analyzed: 2/19/2014

	Value (NTU)	Result (NTU)	% Rec	Acceptance Criteria %Rec
IPC	1.00	1.05	105.0	95-105
IPC	1.00	1.03	103.0	95-105

Sample ID	Sample (NTU)	Sample Dup (NTU)	% RPD	Acceptance Criteria % RPD
AB11866	0.15	0.15	0.7	10
AB11867	ND	ND	#VALUE!	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

Monterey Bay Analytical Services

QC Summary for 200.8

Spiked Sample

ID AB11636

Date Analyzed

Thursday, February 20, 2014 13:10:14

	IPC Blank	QCS 50	Prep Blank	LCS	LCSD	LCS/LCSD	Sample	Spiked	MS	MSD	MS-MSD	LFB	LFB	LFB-LFBD	IPC Blank
	ug/L	%Rec.	ug/L	% Rec	%Rec	%RPD	ug/L	ug/L	%Rec.	% Rec.	% RPD	% Rec	% Rec	% RPD	ug/L
		85-115%		70-130%	70-130%	20%			70-130%	70-130%	20%	85-115%	85-115%	20%	
Lithium	0.03	107.4	0.15	120.8	114.9	5.00	1.1	50	126.1	135.4	7.09	98.75	123.10	21.95	0.28
Beryllium	0.01	103.0	0.01	113.3	108.1	4.66	0.0	50	124.3	132.9	6.73	98.57	118.85	18.66	0.01
Aluminum	0.19	108.5	10.09	109.8	108.4	1.22	4.0	50	111.5	120.2	7.54	100.81	107.74	6.65	0.40
Vanadium	0.00	105.9	-1.35	108.8	108.3	0.46	0.6	50	103.1	109.1	5.69	99.61	100.81	1.19	-0.01
Chromium	-0.02	104.9	0.99	109.6	106.9	2.44	2.3	50	101.1	107.8	6.36	99.72	98.89	0.83	0.01
Iron 54	0.16	113.0	2.40	120.8	117.1	3.12	-19.8	100	111.9	120.7	7.60	106.89	103.40	3.32	-5.61
Manganese	0.02	103.5	0.09	107.7	104.3	3.19	0.1	50	102.2	110.9	8.21	98.19	100.55	2.37	0.02
Cobalt	0.01	103.1	0.01	106.8	104.1	2.59	0.0	50	99.7	108.1	8.11	99.12	97.05	2.11	0.01
Nickel	0.01	102.1	0.05	105.6	103.3	2.18	-0.1	50	96.7	105.1	8.26	98.54	95.62	3.01	0.01
Copper	0.01	101.6	0.59	109.2	105.7	3.23	0.2	50	100.2	107.0	6.57	102.00	98.81	3.18	0.01
Zinc	-0.03	113.8	25.50	123.6	108.1	13.30	31.4	50	103.1	116.2	11.94	100.37	102.62	2.22	0.05
Arsenic	0.00	102.1	0.09	106.1	102.9	3.11	0.5	50	102.8	108.7	5.58	97.34	93.69	3.83	0.10
Selenium	0.08	104.5	-0.06	106.9	104.4	2.42	1.4	250	112.1	117.0	4.27	100.45	100.79	0.34	0.12
Strontium	0.01	104.8	0.18	107.1	104.8	2.17	1.2	50	103.6	110.8	6.65	99.97	102.73	2.72	0.01
Molybdenum	0.06	99.4	0.04	106.8	105.0	1.70	0.0	50	99.6	107.8	7.95	99.04	98.13	0.92	0.05
Silver	0.16	104.8	0.11	102.5	104.0	1.50	0.0	50	100.9	110.6	9.20	102.19	101.26	0.91	0.21
Cadmium	0.02	103.8	0.08	107.5	105.5	1.92	0.0	50	103.9	109.9	5.59	98.56	100.34	1.79	0.02
Antimony	0.09	NA	0.06	106.6	105.0	1.50	0.0	50	103.6	112.0	7.73	98.44	99.82	1.40	0.07
Barium	0.01	104.1	0.08	108.8	106.9	1.69	0.2	50	102.9	111.1	7.65	100.49	101.40	0.90	0.01
Mercury	0.03	103.0	0.03	105.9	106.0	0.11	0.1	2.5	100.9	108.2	7.01	100.16	101.52	1.36	0.02
Thallium	0.01	103.1	0.08	106.4	106.2	0.14	0.0	50	101.4	108.4	6.74	99.03	99.57	0.54	0.01
Lead	0.01	107.5	0.15	110.3	107.7	2.34	0.0	50	102.1	109.2	6.79	100.67	100.58	0.09	0.01
Uranium	0.01	NA	0.00	110.2	105.9	3.99	0.0	50	102.5	109.4	6.45	99.84	100.07	0.23	0.01

MS = Matrix Spike MSD = Matrix Spike Duplicate; LFB = Laboratory Fortified Blank; LFBD = Laboratory Fortified Blank Duplicate RPD = Relative Percent Difference

ICP-OES EPA 200.7

Batch # 20140221

Analyte/ WL	Range	IC	Prep	LCS	%Rec	LCSD	%Rec	%Diff	IC Verification			QCS (95-105%)		
		Blank	Blank	Value	85-115%	Value	85-115%		Value	Result	%Rec	Value	Result	%Rec
B 249.678	0.05-5ppm	0.00	0.00	1.00	100.3%	1.04	104.1%	3.7%	1	0.98	98.4%	1	0.96	96.3%
B 249.772	0.05-5ppm	0.01	0.00	1.01	100.7%	1.04	103.6%	2.9%	1	0.99	98.9%	1	0.96	96.3%
Ca 317.933	50-300ppm	-6.23	-6.24	48.1	96.3%	49.6	99.2%	3.0%	50	48.2	96.5%	50	46.8	93.6%
Ca 396.847	0.5-50ppm	-0.23	-0.24	49.1	98.2%	51.4	102.8%	4.5%	50	49.1	98.2%	50	48.7	97.5%
Cu 324.754	10ppb-100ppm	-3.68	-2.80	997	99.7%	1038	103.8%	4.0%	1000	984	98.4%	1000	984	98.4%
Cu 327.395	10ppb-100ppm	-0.27	0.98	990	99.0%	1025	102.5%	3.5%	1000	980	98.0%	1000	983	98.3%
Fe 238.204	10ppb-100ppm	0.91	0.00	992	99.2%	1017	101.7%	2.5%	1000	984	98.4%	1000	965	96.5%
Fe 259.940	10ppb-100ppm	-0.38	0.60	992	99.2%	1025	102.5%	3.2%	1000	995	99.5%	1000	968	96.8%
K 766.491	0.1-750ppm	0.14	0.11	9.8	97.7%	10.2	101.8%	4.1%	10	9.8	97.7%	10	9.6	96.2%
Mg 202.582	50-1000ppm	-2.11	-2.13	49.1	98.2%	51.0	102.0%	3.8%	50	49.4	98.9%	50	48.6	97.3%
Mg 279.078	0.5-50ppm	0.01	-0.03	49.2	98.4%	50.9	101.8%	3.4%	50	49.3	98.6%	50	48.5	96.9%
Mn 257.610	10ppb-11ppm	-1.16	-1.87	994	99.4%	1022	102.2%	2.8%	1000	986	98.6%	1000	966	96.6%
Mn 260.568	10ppb-11ppm	-0.35	-1.41	990	99.0%	1020	102.0%	3.0%	1000	978	97.8%	1000	960	96.0%
Na 568.821	50-1000ppm	2.64	3.62	47.6	95.3%	48.8	97.5%	2.3%	50	47.9	95.7%	50	47.8	95.5%
Na 589.592	0.5-50ppm	0.11	0.05	49.3	98.6%	51.2	102.4%	3.8%	50	49.5	99.0%	50	48.3	96.7%
Si 251.611	0.5-200ppm	0.12	0.05	50.0	99.9%	51.1	102.2%	2.2%	50	49.3	98.6%	107	102.5	95.8%
Si 252.411	0.5-200ppm	0.13	0.04	50.2	100.4%	51.1	102.3%	1.8%	50	49.3	98.5%	107	102.7	96.0%
Zn 213.857	10ppb-50ppm	-1.25	-3.10	989	98.9%	1017	101.7%	2.9%	1000	989	98.9%	1000	958	95.8%

Matrix Spikes

Sample ID AB11636

Analyte/ WL	Sample Value	MS	%Rec	MSD	%Rec	%Diff	CCV (90-110%)			%Diff	CC
		Value	70-130%	Value	70-130%		Value	Result	%Rec	10%	Blank
B 249.678	0.18	1.17	98.1%	1.17	98.8%	0.6%	1	1.00	99.8%	1.4%	0.00
B 249.772	0.18	1.17	98.2%	1.17	98.2%	0.0%	1	1.00	100.0%	1.0%	0.00
Ca 317.933	-6.23	46.7	105.9%	47.0	106.4%	0.6%	50	47.9	95.7%	0.8%	-6.25
Ca 396.847	-0.23	48.9	98.2%	48.8	98.1%	0.2%	50	49.7	99.5%	1.3%	-0.25
Cu 324.754	-3.42	991	99.4%	998	100.1%	0.7%	1000	995	99.5%	1.2%	-2.54
Cu 327.395	2.88	990	98.7%	995	99.2%	0.5%	1000	997	99.7%	1.7%	0.99
Fe 238.204	-1.92	970	97.2%	972	97.4%	0.2%	1000	992	99.2%	0.8%	0.05
Fe 259.940	-2.92	970	97.3%	974	97.6%	0.4%	1000	993	99.3%	0.1%	0.37
K 766.491	0.63	10.2	95.9%	10.3	96.4%	0.4%	10	9.9	99.4%	1.7%	0.11
Mg 202.582	-2.18	49.1	102.5%	49.2	102.8%	0.3%	50	49.8	99.6%	0.7%	-2.12
Mg 279.078	-0.01	48.9	97.8%	48.9	97.8%	0.0%	50	49.6	99.2%	0.6%	-0.01
Mn 257.610	-2.30	976	97.8%	975	97.7%	0.1%	1000	990	99.0%	0.4%	-1.91
Mn 260.568	-0.84	972	97.3%	970	97.1%	0.2%	1000	988	98.8%	1.0%	-1.00
Na 568.821	5.30	53.0	95.5%	51.3	92.0%	3.3%	50	47.5	95.0%	0.8%	2.91
Na 589.592	4.81	53.6	97.6%	53.9	98.1%	0.5%	50	50.3	100.5%	1.5%	0.06
Si 251.611	0.32	49.4	98.2%	49.5	98.3%	0.2%	50	49.4	98.7%	0.2%	0.02
Si 252.411	0.34	49.3	98.0%	49.5	98.3%	0.3%	50	49.4	98.9%	0.3%	0.02
Zn 213.857	19.84	995	97.5%	995	97.5%	0.0%	1000	987	98.7%	0.2%	-2.05

Note: Italics indicates that the result is outside the calibration range.

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Alkalinity QC Summary (SM 2320B)

Date Analyzed: 2/24/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	40	39.1	97.75	95-105

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12018	118.9	118.3	0.5	10
AB12030	125.3	125.9	0.5	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

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Ortho Phosphate QC Summary (Hach 8190)

Date: 2/24/2004

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
LCS	0.200	0.213	106.5	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12030	0.068	0.200	0.289	0.295	110.5	113.5	2.1	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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Phosphorus QC Summary (Hach 8190)

Date: 2/24/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
LCS	0.200	0.187	93.5	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12030	0.074	0.200	0.256	0.262	91	94	2.3	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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Ammonia by Electrode QC Summary (SM 4500-NH3)

Date: 2/25/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC Low	0.050	0.049	98	90-110
IPC	0.500	0.453	90.6	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB11890	1.080	0.500	1.530	1.630	90	110	6.3	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; IPC = Instrument Performance Check

RPD = Relative Percent Difference; Rec = Recovery

Date Analyzed: 20140219

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300.0 QC Summary

All units expressed in mg/L

	F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
	2	20	2	20	2	2	2
IPC	2.01	19.75	2.12	19.47	2.09	2.00	1.97
Recovery 90-110%	100.29	98.77	105.97	97.36	104.51	100.01	98.29
CCV1	2.03	19.83	2.14	19.55	2.10	2.00	1.98
Recovery 90-110%	101.26	99.16	106.88	97.74	104.95	100.07	98.96
RPD 10%	0.97	0.40	0.86	0.38	0.42	0.06	0.68
	F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
	2	20	2	20	2	2	2
AB11882	0.57	137.88	0.10	69.99	0.00	8.01	4.80
AB11882+LFM	2.65	160.31	1.90	90.14	1.68	10.14	6.98
AB11882+LFMD	2.43	160.23	1.97	89.99	1.67	10.16	7.04
Average	2.54	160.27	1.93	90.06	1.68	10.15	7.01
Recovery 80-120%	98.66	111.99	91.96	100.35	83.78	107.13	110.30
RPD 10%	8.40	0.05	4.05	0.16	1.10	0.23	0.95



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Appendix G

A4B1386

2/26/2014

Invoice: A404720

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

RE: Report for A4B1386 General

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 2/19/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAP Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montieth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montieth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: Monterey Bay Analytical Report To: David Holland Project #: Cal Am Received: 2/19/2014 - 10:30 Report Due: 2/26/2014	Invoice To: Monterey Bay Analytical Invoice Attn: David Holland Project PO#: -
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Sample Receipt Conditions

Cooler: Default Cooler Temperature on Receipt °C: 4.0	Containers Intact COC/Labels Agree Packing Material - Bubble Wrap Packing Material - Foam Sample(s) were received in temperature range. Initial receipt at BSK-FAL
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Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- B Analyte exceeds laboratory acceptance limit for blank contamination.
- B1.1 Analyte detected in associated method blank. No material impact on reported result as sample is ND for this parameter.
- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- BS3.0 BS/BSD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.

Report Distribution

Recipient(s)	Report Format
David Holland	Final.rpt

Certificate of Analysis

Sample ID: A4B1386-01
Sampled By: Nathan Reynolds
Sample Description: CX-B1WQ Zone #1 // 11850

Sample Date - Time: 02/18/14 - 12:15
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A402098	02/20/14	02/20/14	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A402098	02/20/14	02/20/14	
Surrogate: TCMX	EPA 504.1	98 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A402176	02/20/14	02/23/14	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A402176	02/20/14	02/23/14	
2,4-D	EPA 515.3	ND	10	ug/L	1	A402176	02/20/14	02/23/14	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A402176	02/20/14	02/23/14	
Dalapon	EPA 515.3	ND	10	ug/L	1	A402176	02/20/14	02/23/14	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A402176	02/20/14	02/23/14	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A402176	02/20/14	02/23/14	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A402176	02/20/14	02/23/14	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A402176	02/20/14	02/23/14	
Surrogate: DCPAA	EPA 515.3	82 %	<i>Acceptable range: 70-130 %</i>						
<u>Volatile Organics by GC-MS</u>									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A402017	02/19/14	02/19/14	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A402017	02/19/14	02/19/14	BS1.0
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A402017	02/19/14	02/19/14	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A402017	02/19/14	02/19/14	
Acetone	EPA 524.2	ND	10	ug/L	1	A402017	02/19/14	02/19/14	BS1.0

Certificate of Analysis

Sample ID: A4B1386-01
Sampled By: Nathan Reynolds
Sample Description: CX-B1WQ Zone #1 // 11850

Sample Date - Time: 02/18/14 - 12:15
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics by GC-MS									
Benzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	B1.1
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A402017	02/19/14	02/19/14	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A402017	02/19/14	02/19/14	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A402017	02/19/14	02/19/14	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A402017	02/19/14	02/19/14	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A402017	02/19/14	02/19/14	

Certificate of Analysis

Sample ID: A4B1386-01
Sampled By: Nathan Reynolds
Sample Description: CX-B1WQ Zone #1 // 11850

Sample Date - Time: 02/18/14 - 12:15
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	99 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	104 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A402247	02/21/14	02/22/14	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A402247	02/21/14	02/22/14	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A402247	02/21/14	02/22/14	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A402247	02/21/14	02/22/14	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A402247	02/21/14	02/22/14	
Bromacil	EPA 525.2	ND	10	ug/L	1	A402247	02/21/14	02/22/14	
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A402247	02/21/14	02/22/14	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A402247	02/21/14	02/22/14	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A402247	02/21/14	02/22/14	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A402247	02/21/14	02/22/14	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A402247	02/21/14	02/22/14	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A402247	02/21/14	02/22/14	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A402247	02/21/14	02/22/14	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A402247	02/21/14	02/22/14	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A402247	02/21/14	02/22/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	103 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A402279	02/23/14	02/25/14	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A402279	02/23/14	02/25/14	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A402279	02/23/14	02/25/14	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A402279	02/23/14	02/25/14	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A402279	02/23/14	02/25/14	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A402279	02/23/14	02/25/14	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A402279	02/23/14	02/25/14	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A402279	02/23/14	02/25/14	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A402145	02/19/14	02/20/14	
Surrogate: AMPA	EPA 547	108 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A402157	02/19/14	02/20/14	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A402181	02/20/14	02/25/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A402098

Prepared: 02/20/2014

Prep Method: EPA 504.1

Analyst: PYA

Blank (A402098-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							02/20/14	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							02/20/14	
Surrogate: TCMX	3.0			3.0		102	70-130			02/20/14	

Blank Spike (A402098-BS1)

Dibromochloropropane (DBCP)	0.12	0.010	ug/L	0.12		95	70-130			02/20/14	
Ethylene Dibromide (EDB)	0.10	0.020	ug/L	0.12		82	70-130			02/20/14	
Surrogate: TCMX	2.7			3.0		90	70-130			02/20/14	

Blank Spike Dup (A402098-BSD1)

Dibromochloropropane (DBCP)	0.13	0.010	ug/L	0.12		100	70-130	5	20	02/21/14	
Ethylene Dibromide (EDB)	0.11	0.020	ug/L	0.12		85	70-130	4	20	02/21/14	
Surrogate: TCMX	2.8			3.0		93	70-130			02/21/14	

Matrix Spike (A402098-MS1), Source: A4B0914-01

Dibromochloropropane (DBCP)	0.50	0.010	ug/L	0.12	0.36	107	65-135			02/20/14	
Ethylene Dibromide (EDB)	0.11	0.020	ug/L	0.12	ND	87	65-135			02/20/14	
Surrogate: TCMX	2.7			3.0		93	70-130			02/20/14	

EPA 515.3 - Quality Control

Batch: A402176

Prepared: 02/20/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank (A402176-BLK1)

2,4,5-T	ND	1.0	ug/L							02/22/14	
2,4,5-TP (Silvex)	ND	1.0	ug/L							02/22/14	
2,4-D	ND	10	ug/L							02/22/14	
Bentazon	ND	2.0	ug/L							02/22/14	
Dalapon	ND	10	ug/L							02/22/14	
Dicamba	ND	1.5	ug/L							02/22/14	
Dinoseb	ND	2.0	ug/L							02/22/14	
Pentachlorophenol	ND	0.20	ug/L							02/22/14	
Picloram	ND	1.0	ug/L							02/22/14	
Surrogate: DCPAA	45			58		78	70-130			02/22/14	

Blank Spike (A402176-BS1)

2,4,5-T	4.0	1.0	ug/L	4.0		99	70-130			02/22/14	
2,4,5-TP (Silvex)	0.80	1.0	ug/L	0.80		101	70-130			02/22/14	
2,4-D	0.40	10	ug/L	0.40		99	70-130			02/22/14	
Bentazon	8.1	2.0	ug/L	8.0		102	70-130			02/22/14	
Dalapon	3.4	10	ug/L	4.0		86	70-130			02/22/14	
Dicamba	5.7	1.5	ug/L	6.0		95	70-130			02/22/14	
Dinoseb	0.80	2.0	ug/L	0.80		100	70-130			02/22/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16		97	70-130			02/22/14	
Picloram	0.29	1.0	ug/L	0.40		72	70-130			02/22/14	
Surrogate: DCPAA	46			58		80	70-130			02/22/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A402176

Prepared: 02/20/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A402176-BSD1)

2,4,5-T	4.1	1.0	ug/L	4.0		102	70-130	3	20	02/23/14	
2,4,5-TP (Silvex)	0.85	1.0	ug/L	0.80		107	70-130	6	20	02/23/14	
2,4-D	0.41	10	ug/L	0.40		103	70-130	4	20	02/23/14	
Bentazon	6.7	2.0	ug/L	8.0		83	70-130	20	20	02/23/14	
Dalapon	3.9	10	ug/L	4.0		97	70-130	12	20	02/23/14	
Dicamba	6.0	1.5	ug/L	6.0		99	70-130	4	20	02/23/14	
Dinoseb	0.81	2.0	ug/L	0.80		101	70-130	2	20	02/23/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16		96	70-130	1	20	02/23/14	
Picloram	0.36	1.0	ug/L	0.40		90	70-130	22	20	02/23/14	BS3.0
Surrogate: DCPAA	47			58		81	70-130			02/23/14	

Matrix Spike (A402176-MS1), Source: A4B1147-01

2,4,5-T	4.0	1.0	ug/L	4.0	ND	101	70-130			02/22/14	
2,4,5-TP (Silvex)	0.81	1.0	ug/L	0.80	ND	101	70-130			02/22/14	
2,4-D	0.41	10	ug/L	0.40	ND	102	70-130			02/22/14	
Bentazon	8.6	2.0	ug/L	8.0	ND	107	70-130			02/22/14	
Dalapon	3.8	10	ug/L	4.0	ND	94	70-130			02/22/14	
Dicamba	6.0	1.5	ug/L	6.0	ND	101	70-130			02/22/14	
Dinoseb	0.80	2.0	ug/L	0.80	ND	100	70-130			02/22/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	95	70-130			02/22/14	
Picloram	0.36	1.0	ug/L	0.40	ND	90	70-130			02/22/14	
Surrogate: DCPAA	47			58		81	70-130			02/22/14	

Matrix Spike Dup (A402176-MSD1), Source: A4B1147-01

2,4,5-T	4.0	1.0	ug/L	4.0	ND	100	70-130	1	20	02/22/14	
2,4,5-TP (Silvex)	0.80	1.0	ug/L	0.80	ND	100	70-130	1	20	02/22/14	
2,4-D	0.40	10	ug/L	0.40	ND	101	70-130	1	20	02/22/14	
Bentazon	9.6	2.0	ug/L	8.0	ND	120	70-130	11	20	02/22/14	
Dalapon	3.6	10	ug/L	4.0	ND	90	70-130	4	20	02/22/14	
Dicamba	5.9	1.5	ug/L	6.0	ND	99	70-130	2	20	02/22/14	
Dinoseb	0.80	2.0	ug/L	0.80	ND	99	70-130	1	20	02/22/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	94	70-130	1	20	02/22/14	
Picloram	0.33	1.0	ug/L	0.40	ND	81	70-130	10	20	02/22/14	
Surrogate: DCPAA	47			58		81	70-130			02/22/14	

EPA 524.2 - Quality Control

Batch: A402017

Prepared: 02/19/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402017-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							02/19/14	
1,1,1-Trichloroethane	ND	0.50	ug/L							02/19/14	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							02/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							02/19/14	
1,1,2-Trichloroethane	ND	0.50	ug/L							02/19/14	
1,1-Dichloroethane	ND	0.50	ug/L							02/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402017

Prepared: 02/19/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402017-BLK1)

1,1-Dichloroethene	ND	0.50	ug/L							02/19/14	
1,1-Dichloropropene	ND	0.50	ug/L							02/19/14	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							02/19/14	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							02/19/14	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							02/19/14	
1,2-Dichlorobenzene	ND	0.50	ug/L							02/19/14	
1,2-Dichloroethane	ND	0.50	ug/L							02/19/14	
1,2-Dichloropropane	ND	0.50	ug/L							02/19/14	
1,3,5-Trimethylbenzene	ND	0.50	ug/L							02/19/14	
1,3-Dichlorobenzene	ND	0.50	ug/L							02/19/14	
1,3-Dichloropropane	ND	0.50	ug/L							02/19/14	
1,4-Dichlorobenzene	ND	0.50	ug/L							02/19/14	
2,2-Dichloropropane	ND	0.50	ug/L							02/19/14	
2-Butanone	ND	5.0	ug/L							02/19/14	
2-Chlorotoluene	ND	0.50	ug/L							02/19/14	
2-Hexanone	ND	10	ug/L							02/19/14	
4-Chlorotoluene	ND	0.50	ug/L							02/19/14	
4-Methyl-2-pentanone	ND	5.0	ug/L							02/19/14	
Acetone	ND	10	ug/L							02/19/14	
Benzene	ND	0.50	ug/L							02/19/14	
Bromobenzene	ND	0.50	ug/L							02/19/14	
Bromochloromethane	ND	0.50	ug/L							02/19/14	
Bromodichloromethane	ND	0.50	ug/L							02/19/14	
Bromoform	ND	0.50	ug/L							02/19/14	
Bromomethane	ND	0.50	ug/L							02/19/14	
Carbon Tetrachloride	ND	0.50	ug/L							02/19/14	
Chlorobenzene	ND	0.50	ug/L							02/19/14	
Chloroethane	ND	0.50	ug/L							02/19/14	
Chloroform	ND	0.50	ug/L							02/19/14	
Chloromethane	ND	0.50	ug/L							02/19/14	
cis-1,2-Dichloroethene	ND	0.50	ug/L							02/19/14	
cis-1,3-Dichloropropene	ND	0.50	ug/L							02/19/14	
Dibromochloromethane	ND	0.50	ug/L							02/19/14	
Dibromomethane	ND	0.50	ug/L							02/19/14	
Dichlorodifluoromethane	ND	0.50	ug/L							02/19/14	
Dichloromethane	0.55	0.50	ug/L							02/19/14	B
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							02/19/14	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							02/19/14	
Ethylbenzene	ND	0.50	ug/L							02/19/14	
Hexachlorobutadiene	ND	0.50	ug/L							02/19/14	
Isopropylbenzene	ND	0.50	ug/L							02/19/14	
m,p-Xylenes	ND	0.50	ug/L							02/19/14	
Methyl-t-butyl ether	ND	0.50	ug/L							02/19/14	
Naphthalene	ND	0.50	ug/L							02/19/14	
n-Butylbenzene	ND	0.50	ug/L							02/19/14	
n-Propylbenzene	ND	0.50	ug/L							02/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402017

Prepared: 02/19/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402017-BLK1)

o-Xylene	ND	0.50	ug/L							02/19/14	
p-Isopropyltoluene	ND	0.50	ug/L							02/19/14	
sec-Butylbenzene	ND	0.50	ug/L							02/19/14	
Styrene	ND	0.50	ug/L							02/19/14	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							02/19/14	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							02/19/14	
tert-Butylbenzene	ND	0.50	ug/L							02/19/14	
Tetrachloroethene (PCE)	ND	0.50	ug/L							02/19/14	
Toluene	ND	0.50	ug/L							02/19/14	
trans-1,2-Dichloroethene	ND	0.50	ug/L							02/19/14	
trans-1,3-Dichloropropene	ND	0.50	ug/L							02/19/14	
Trichloroethene (TCE)	ND	0.50	ug/L							02/19/14	
Trichlorofluoromethane	ND	5.0	ug/L							02/19/14	
Vinyl Chloride	ND	0.50	ug/L							02/19/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.9			5.0		98	70-130			02/19/14	
Surrogate: Bromofluorobenzene	51			50		102	70-130			02/19/14	

Blank Spike (A402017-BS1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		104	70-130			02/19/14	
1,1,1-Trichloroethane	11	0.50	ug/L	10		106	70-130			02/19/14	
1,1,1,2,2-Tetrachloroethane	10	0.50	ug/L	10		102	70-130			02/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	11	10	ug/L	10		112	70-130			02/19/14	
1,1,2-Trichloroethane	10	0.50	ug/L	10		103	70-130			02/19/14	
1,1-Dichloroethane	10	0.50	ug/L	10		105	70-130			02/19/14	
1,1-Dichloroethene	12	0.50	ug/L	10		117	70-130			02/19/14	
1,1-Dichloropropene	11	0.50	ug/L	10		106	70-130			02/19/14	
1,2,3-Trichlorobenzene	9.7	0.50	ug/L	10		97	70-130			02/19/14	
1,2,4-Trichlorobenzene	10	0.50	ug/L	10		101	70-130			02/19/14	
1,2,4-Trimethylbenzene	9.5	0.50	ug/L	10		95	70-130			02/19/14	
1,2-Dichlorobenzene	10	0.50	ug/L	10		101	70-130			02/19/14	
1,2-Dichloroethane	10	0.50	ug/L	10		102	70-130			02/19/14	
1,2-Dichloropropane	10	0.50	ug/L	10		104	70-130			02/19/14	
1,3,5-Trimethylbenzene	10	0.50	ug/L	10		100	70-130			02/19/14	
1,3-Dichlorobenzene	11	0.50	ug/L	10		108	70-130			02/19/14	
1,3-Dichloropropane	10	0.50	ug/L	10		101	70-130			02/19/14	
1,4-Dichlorobenzene	10	0.50	ug/L	10		101	70-130			02/19/14	
2,2-Dichloropropane	11	0.50	ug/L	10		106	70-130			02/19/14	
2-Butanone	12	5.0	ug/L	10		119	70-130			02/19/14	
2-Chlorotoluene	10	0.50	ug/L	10		103	70-130			02/19/14	
2-Hexanone	11	10	ug/L	10		109	70-130			02/19/14	
4-Chlorotoluene	10	0.50	ug/L	10		104	70-130			02/19/14	
4-Methyl-2-pentanone	11	5.0	ug/L	10		112	70-130			02/19/14	
Acetone	13	10	ug/L	10		127	70-130			02/19/14	
Benzene	10	0.50	ug/L	10		104	70-130			02/19/14	
Bromobenzene	10	0.50	ug/L	10		101	70-130			02/19/14	
Bromochloromethane	11	0.50	ug/L	10		107	70-130			02/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402017

Prepared: 02/19/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A402017-BS1)

Bromodichloromethane	11	0.50	ug/L	10		108	70-130			02/19/14	
Bromoform	11	0.50	ug/L	10		105	70-130			02/19/14	
Bromomethane	8.2	0.50	ug/L	10		82	70-130			02/19/14	
Carbon Tetrachloride	11	0.50	ug/L	10		108	70-130			02/19/14	
Chlorobenzene	10	0.50	ug/L	10		104	70-130			02/19/14	
Chloroethane	9.8	0.50	ug/L	10		98	70-130			02/19/14	
Chloroform	10	0.50	ug/L	10		102	70-130			02/19/14	
Chloromethane	10	0.50	ug/L	10		104	70-130			02/19/14	
cis-1,2-Dichloroethene	10	0.50	ug/L	10		101	70-130			02/19/14	
cis-1,3-Dichloropropene	9.6	0.50	ug/L	10		96	70-130			02/19/14	
Dibromochloromethane	10	0.50	ug/L	10		102	70-130			02/19/14	
Dibromomethane	10	0.50	ug/L	10		100	70-130			02/19/14	
Dichlorodifluoromethane	11	0.50	ug/L	10		113	70-130			02/19/14	
Dichloromethane	11	0.50	ug/L	10		109	70-130			02/19/14	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		114	70-130			02/19/14	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		111	70-130			02/19/14	
Ethylbenzene	11	0.50	ug/L	10		106	70-130			02/19/14	
Hexachlorobutadiene	11	0.50	ug/L	10		110	70-130			02/19/14	
Isopropylbenzene	10	0.50	ug/L	10		100	70-130			02/19/14	
m,p-Xylenes	20	0.50	ug/L	20		101	70-130			02/19/14	
Methyl-t-butyl ether	21	0.50	ug/L	20		105	70-130			02/19/14	
Naphthalene	9.6	0.50	ug/L	10		96	70-130			02/19/14	
n-Butylbenzene	10	0.50	ug/L	10		102	70-130			02/19/14	
n-Propylbenzene	11	0.50	ug/L	10		106	70-130			02/19/14	
o-Xylene	10	0.50	ug/L	10		101	70-130			02/19/14	
p-Isopropyltoluene	11	0.50	ug/L	10		106	70-130			02/19/14	
sec-Butylbenzene	10	0.50	ug/L	10		103	70-130			02/19/14	
Styrene	12	0.50	ug/L	10		118	70-130			02/19/14	
tert-Amyl Methyl Ether (TAME)	12	3.0	ug/L	10		116	70-130			02/19/14	
tert-Butyl alcohol (TBA)	12	2.0	ug/L	10		120	70-130			02/19/14	
tert-Butylbenzene	10	0.50	ug/L	10		105	70-130			02/19/14	
Tetrachloroethene (PCE)	11	0.50	ug/L	10		107	70-130			02/19/14	
Toluene	10	0.50	ug/L	10		102	70-130			02/19/14	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		107	70-130			02/19/14	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		109	70-130			02/19/14	
Trichloroethene (TCE)	9.7	0.50	ug/L	10		97	70-130			02/19/14	
Trichlorofluoromethane	11	5.0	ug/L	10		108	70-130			02/19/14	
Vinyl Chloride	11	0.50	ug/L	10		109	70-130			02/19/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		101	70-130			02/19/14	
Surrogate: Bromofluorobenzene	51			50		102	70-130			02/19/14	

Blank Spike Dup (A402017-BSD1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		104	70-130	0	30	02/19/14	
1,1,1-Trichloroethane	10	0.50	ug/L	10		103	70-130	3	30	02/19/14	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		106	70-130	4	30	02/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	11	10	ug/L	10		107	70-130	4	30	02/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402017

Prepared: 02/19/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402017-BSD1)

1,1,2-Trichloroethane	10	0.50	ug/L	10		104	70-130	1	30	02/19/14	
1,1-Dichloroethane	10	0.50	ug/L	10		102	70-130	3	30	02/19/14	
1,1-Dichloroethene	11	0.50	ug/L	10		108	70-130	8	30	02/19/14	
1,1-Dichloropropene	10	0.50	ug/L	10		103	70-130	3	30	02/19/14	
1,2,3-Trichlorobenzene	9.6	0.50	ug/L	10		96	70-130	1	30	02/19/14	
1,2,4-Trichlorobenzene	10	0.50	ug/L	10		100	70-130	1	30	02/19/14	
1,2,4-Trimethylbenzene	9.5	0.50	ug/L	10		95	70-130	0	30	02/19/14	
1,2-Dichlorobenzene	10	0.50	ug/L	10		100	70-130	0	30	02/19/14	
1,2-Dichloroethane	10	0.50	ug/L	10		101	70-130	1	30	02/19/14	
1,2-Dichloropropane	10	0.50	ug/L	10		102	70-130	2	30	02/19/14	
1,3,5-Trimethylbenzene	9.8	0.50	ug/L	10		98	70-130	2	30	02/19/14	
1,3-Dichlorobenzene	11	0.50	ug/L	10		108	70-130	0	30	02/19/14	
1,3-Dichloropropane	10	0.50	ug/L	10		102	70-130	0	30	02/19/14	
1,4-Dichlorobenzene	10	0.50	ug/L	10		100	70-130	1	30	02/19/14	
2,2-Dichloropropane	10	0.50	ug/L	10		102	70-130	4	30	02/19/14	
2-Butanone	13	5.0	ug/L	10		132	70-130	11	30	02/19/14	BS High
2-Chlorotoluene	10	0.50	ug/L	10		101	70-130	2	30	02/19/14	
2-Hexanone	12	10	ug/L	10		120	70-130	10	30	02/19/14	
4-Chlorotoluene	10	0.50	ug/L	10		102	70-130	1	30	02/19/14	
4-Methyl-2-pentanone	12	5.0	ug/L	10		120	70-130	7	30	02/19/14	
Acetone	14	10	ug/L	10		139	70-130	9	30	02/19/14	BS High
Benzene	10	0.50	ug/L	10		102	70-130	2	30	02/19/14	
Bromobenzene	10	0.50	ug/L	10		101	70-130	0	30	02/19/14	
Bromochloromethane	10	0.50	ug/L	10		103	70-130	4	30	02/19/14	
Bromodichloromethane	10	0.50	ug/L	10		105	70-130	3	30	02/19/14	
Bromoform	11	0.50	ug/L	10		110	70-130	4	30	02/19/14	
Bromomethane	8.6	0.50	ug/L	10		86	70-130	5	30	02/19/14	
Carbon Tetrachloride	10	0.50	ug/L	10		104	70-130	4	30	02/19/14	
Chlorobenzene	10	0.50	ug/L	10		102	70-130	3	30	02/19/14	
Chloroethane	9.6	0.50	ug/L	10		96	70-130	2	30	02/19/14	
Chloroform	9.8	0.50	ug/L	10		98	70-130	4	30	02/19/14	
Chloromethane	9.8	0.50	ug/L	10		98	70-130	5	30	02/19/14	
cis-1,2-Dichloroethene	9.8	0.50	ug/L	10		98	70-130	3	30	02/19/14	
cis-1,3-Dichloropropene	9.6	0.50	ug/L	10		96	70-130	1	30	02/19/14	
Dibromochloromethane	10	0.50	ug/L	10		104	70-130	1	30	02/19/14	
Dibromomethane	10	0.50	ug/L	10		100	70-130	0	30	02/19/14	
Dichlorodifluoromethane	11	0.50	ug/L	10		106	70-130	6	30	02/19/14	
Dichloromethane	11	0.50	ug/L	10		106	70-130	3	30	02/19/14	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		113	70-130	1	30	02/19/14	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		112	70-130	0	30	02/19/14	
Ethylbenzene	10	0.50	ug/L	10		104	70-130	2	30	02/19/14	
Hexachlorobutadiene	11	0.50	ug/L	10		106	70-130	3	30	02/19/14	
Isopropylbenzene	9.8	0.50	ug/L	10		98	70-130	1	30	02/19/14	
m,p-Xylenes	20	0.50	ug/L	20		99	70-130	2	30	02/19/14	
Methyl-t-butyl ether	21	0.50	ug/L	20		107	70-130	2	30	02/19/14	
Naphthalene	9.9	0.50	ug/L	10		99	70-130	3	30	02/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402017

Prepared: 02/19/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402017-BSD1)

n-Butylbenzene	9.9	0.50	ug/L	10		99	70-130	3	30	02/19/14	
n-Propylbenzene	10	0.50	ug/L	10		104	70-130	2	30	02/19/14	
o-Xylene	9.9	0.50	ug/L	10		99	70-130	2	30	02/19/14	
p-Isopropyltoluene	10	0.50	ug/L	10		103	70-130	3	30	02/19/14	
sec-Butylbenzene	10	0.50	ug/L	10		100	70-130	3	30	02/19/14	
Styrene	12	0.50	ug/L	10		118	70-130	0	30	02/19/14	
tert-Amyl Methyl Ether (TAME)	12	3.0	ug/L	10		118	70-130	2	30	02/19/14	
tert-Butyl alcohol (TBA)	12	2.0	ug/L	10		115	70-130	4	30	02/19/14	
tert-Butylbenzene	10	0.50	ug/L	10		103	70-130	2	30	02/19/14	
Tetrachloroethene (PCE)	10	0.50	ug/L	10		103	70-130	4	30	02/19/14	
Toluene	10	0.50	ug/L	10		100	70-130	2	30	02/19/14	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		103	70-130	4	30	02/19/14	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		110	70-130	1	30	02/19/14	
Trichloroethene (TCE)	10	0.50	ug/L	10		104	70-130	8	30	02/19/14	
Trichlorofluoromethane	10	5.0	ug/L	10		104	70-130	3	30	02/19/14	
Vinyl Chloride	10	0.50	ug/L	10		104	70-130	4	30	02/19/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.1			5.0		101	70-130			02/19/14	
Surrogate: Bromofluorobenzene	51			50		102	70-130			02/19/14	

EPA 525.2 - Quality Control

Batch: A402247

Prepared: 02/21/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank (A402247-BLK1)

Alachlor	ND	1.0	ug/L							02/22/14	
Atrazine	ND	0.50	ug/L							02/22/14	
Benzo(a)pyrene	ND	0.10	ug/L							02/22/14	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							02/22/14	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							02/22/14	
Bromacil	ND	10	ug/L							02/22/14	
Butachlor	ND	0.38	ug/L							02/22/14	
Diazinon	ND	0.25	ug/L							02/22/14	
Dimethoate	ND	10	ug/L							02/22/14	
Metolachlor	ND	0.50	ug/L							02/22/14	
Metribuzin	ND	0.50	ug/L							02/22/14	
Molinate	ND	2.0	ug/L							02/22/14	
Propachlor	ND	0.50	ug/L							02/22/14	
Simazine	ND	1.0	ug/L							02/22/14	
Thiobencarb	ND	1.0	ug/L							02/22/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.5			5.0		110	70-130			02/22/14	

Blank Spike (A402247-BS1)

Alachlor	0.60	1.0	ug/L	0.52		116	70-130			02/22/14	
Atrazine	0.60	0.50	ug/L	0.52		116	70-130			02/22/14	
Benzo(a)pyrene	0.13	0.10	ug/L	0.10		120	70-130			02/22/14	
Bis(2-ethylhexyl) adipate	3.9	3.0	ug/L	3.1		123	70-130			02/22/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402247

Prepared: 02/21/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A402247-BS1)

Bis(2-ethylhexyl) phthalate	3.6	3.0	ug/L	3.1		116	70-130			02/22/14	
Bromacil	2.5	10	ug/L	2.1		118	70-130			02/22/14	
Butachlor	1.4	0.38	ug/L	1.3		106	70-130			02/22/14	
Diazinon	0.052	0.25	ug/L	0.052		100	70-130			02/22/14	
Dimethoate	0.58	10	ug/L	0.52		110	70-130			02/22/14	
Metolachlor	3.4	0.50	ug/L	2.6		130	70-130			02/22/14	
Metribuzin	2.8	0.50	ug/L	2.6		107	70-130			02/22/14	
Molinate	2.9	2.0	ug/L	2.6		111	70-130			02/22/14	
Propachlor	3.0	0.50	ug/L	2.6		115	70-130			02/22/14	
Simazine	0.41	1.0	ug/L	0.37		113	70-130			02/22/14	
Thiobencarb	0.61	1.0	ug/L	0.52		117	70-130			02/22/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.5			5.2		105	70-130			02/22/14	

Blank Spike Dup (A402247-BSD1)

Alachlor	0.60	1.0	ug/L	0.51		117	70-130	1	30	02/22/14	
Atrazine	0.55	0.50	ug/L	0.51		108	70-130	9	30	02/22/14	
Benzo(a)pyrene	0.12	0.10	ug/L	0.10		119	70-130	3	30	02/22/14	
Bis(2-ethylhexyl) adipate	3.9	3.0	ug/L	3.1		128	70-130	1	30	02/22/14	
Bis(2-ethylhexyl) phthalate	3.7	3.0	ug/L	3.1		122	70-130	3	30	02/22/14	
Bromacil	2.7	10	ug/L	2.0		130	70-130	8	30	02/22/14	
Butachlor	1.5	0.38	ug/L	1.3		115	70-130	6	30	02/22/14	
Diazinon	0.047	0.25	ug/L	0.051		92	70-130	11	30	02/22/14	
Dimethoate	0.51	10	ug/L	0.51		100	70-130	12	30	02/22/14	
Metolachlor	3.1	0.50	ug/L	2.6		121	70-130	9	30	02/22/14	
Metribuzin	2.8	0.50	ug/L	2.6		108	70-130	1	30	02/22/14	
Molinate	2.8	2.0	ug/L	2.6		111	70-130	2	30	02/22/14	
Propachlor	2.9	0.50	ug/L	2.6		112	70-130	5	30	02/22/14	
Simazine	0.39	1.0	ug/L	0.36		109	70-130	6	30	02/22/14	
Thiobencarb	0.56	1.0	ug/L	0.51		110	70-130	9	30	02/22/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.9			5.1		116	70-130			02/22/14	

Matrix Spike (A402247-MS1), Source: A4B1171-01

Alachlor	0.57	1.0	ug/L	0.50	ND	116	70-130			02/22/14	
Atrazine	0.51	0.50	ug/L	0.50	ND	104	70-130			02/22/14	
Benzo(a)pyrene	0.11	0.10	ug/L	0.099	ND	115	70-130			02/22/14	
Bis(2-ethylhexyl) adipate	3.4	3.0	ug/L	3.0	ND	115	70-130			02/22/14	
Bis(2-ethylhexyl) phthalate	3.4	3.0	ug/L	3.0	ND	114	70-130			02/22/14	
Bromacil	2.5	10	ug/L	2.0	ND	124	70-130			02/22/14	
Butachlor	1.3	0.38	ug/L	1.2	ND	107	70-130			02/22/14	
Diazinon	0.048	0.25	ug/L	0.050	ND	96	70-130			02/22/14	
Dimethoate	0.47	10	ug/L	0.50	ND	96	70-130			02/22/14	
Metolachlor	3.0	0.50	ug/L	2.5	ND	122	70-130			02/22/14	
Metribuzin	2.7	0.50	ug/L	2.5	ND	109	70-130			02/22/14	
Molinate	2.8	2.0	ug/L	2.5	ND	113	70-130			02/22/14	
Propachlor	3.0	0.50	ug/L	2.5	ND	119	70-130			02/22/14	
Simazine	0.39	1.0	ug/L	0.35	ND	112	70-130			02/22/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402247

Prepared: 02/21/2014

Prep Method: EPA 525.2

Analyst: KHH

Matrix Spike (A402247-MS1), Source: A4B1171-01

Thiobencarb	0.56	1.0	ug/L	0.50	ND	114	70-130			02/22/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.4			5.0		110	70-130			02/22/14	

EPA 531.1 - Quality Control

Batch: A402279

Prepared: 02/23/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank (A402279-BLK1)

3-Hydroxycarbofuran	ND	3.0	ug/L							02/25/14	
Aldicarb	ND	3.0	ug/L							02/25/14	
Aldicarb Sulfone	ND	2.0	ug/L							02/25/14	
Aldicarb Sulfoxide	ND	3.0	ug/L							02/25/14	
Carbaryl	ND	5.0	ug/L							02/25/14	
Carbofuran	ND	5.0	ug/L							02/25/14	
Methomyl	ND	2.0	ug/L							02/25/14	
Oxamyl	ND	20	ug/L							02/25/14	

Blank Spike (A402279-BS1)

3-Hydroxycarbofuran	3.6	3.0	ug/L	4.0		89	80-120			02/25/14	
Aldicarb	4.5	3.0	ug/L	4.0		114	80-120			02/25/14	
Aldicarb Sulfone	4.2	2.0	ug/L	4.0		104	80-120			02/25/14	
Aldicarb Sulfoxide	4.1	3.0	ug/L	4.0		103	80-120			02/25/14	
Carbaryl	4.2	5.0	ug/L	4.0		104	80-120			02/25/14	
Carbofuran	4.2	5.0	ug/L	4.0		104	80-120			02/25/14	
Methomyl	4.1	2.0	ug/L	4.0		103	80-120			02/25/14	
Oxamyl	4.1	20	ug/L	4.0		103	80-120			02/25/14	

Blank Spike Dup (A402279-BSD1)

3-Hydroxycarbofuran	4.0	3.0	ug/L	4.0		99	80-120	11	20	02/25/14	
Aldicarb	4.3	3.0	ug/L	4.0		107	80-120	6	20	02/25/14	
Aldicarb Sulfone	4.1	2.0	ug/L	4.0		103	80-120	1	20	02/25/14	
Aldicarb Sulfoxide	4.0	3.0	ug/L	4.0		101	80-120	2	20	02/25/14	
Carbaryl	4.0	5.0	ug/L	4.0		101	80-120	3	20	02/25/14	
Carbofuran	4.0	5.0	ug/L	4.0		99	80-120	5	20	02/25/14	
Methomyl	4.0	2.0	ug/L	4.0		101	80-120	2	20	02/25/14	
Oxamyl	4.0	20	ug/L	4.0		101	80-120	2	20	02/25/14	

Matrix Spike (A402279-MS1), Source: A4B1162-01

3-Hydroxycarbofuran	4.3	3.0	ug/L	4.0	ND	103	65-135			02/25/14	
Aldicarb	4.5	3.0	ug/L	4.0	ND	112	65-135			02/25/14	
Aldicarb Sulfone	4.4	2.0	ug/L	4.0	ND	109	65-135			02/25/14	
Aldicarb Sulfoxide	4.4	3.0	ug/L	4.0	ND	109	65-135			02/25/14	
Carbaryl	4.4	5.0	ug/L	4.0	ND	109	65-135			02/25/14	
Carbofuran	4.2	5.0	ug/L	4.0	ND	106	65-135			02/25/14	
Methomyl	4.3	2.0	ug/L	4.0	ND	108	65-135			02/25/14	
Oxamyl	4.2	20	ug/L	4.0	ND	106	65-135			02/25/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 547 - Quality Control

Batch: A402145

Prepared: 02/19/2014

Prep Method: EPA 547

Analyst: RJB

Blank (A402145-BLK1)

Glyphosate	ND	5.0	ug/L							02/20/14	
Surrogate: AMPA	120			100		120	70-130			02/20/14	

Blank Spike (A402145-BS1)

Glyphosate	120	5.0	ug/L	100		118	70-130			02/20/14	
Surrogate: AMPA	120			100		121	70-130			02/20/14	

Blank Spike Dup (A402145-BSD1)

Glyphosate	120	5.0	ug/L	100		119	70-130	1	30	02/20/14	
Surrogate: AMPA	110			100		111	70-130			02/20/14	

Matrix Spike (A402145-MS1), Source: A4B1154-01

Glyphosate	110	5.0	ug/L	100	ND	105	70-130			02/20/14	
Surrogate: AMPA	110			100		109	70-130			02/20/14	

Matrix Spike Dup (A402145-MSD1), Source: A4B1154-01

Glyphosate	110	5.0	ug/L	100	ND	107	70-130	2	30	02/20/14	
Surrogate: AMPA	120			100		116	70-130			02/20/14	

EPA 548.1 - Quality Control

Batch: A402157

Prepared: 02/19/2014

Prep Method: EPA 548.1

Analyst: KHH

Blank (A402157-BLK1)

Endothall	ND	45	ug/L							02/20/14	
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Blank Spike (A402157-BS1)

Endothall	16	45	ug/L	20		79	60-111			02/20/14	
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Blank Spike Dup (A402157-BSD1)

Endothall	15	45	ug/L	20		75	60-111	5	46	02/20/14	
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Matrix Spike (A402157-MS1), Source: A4B1005-07

Endothall	ND	45	ug/L	20	ND	0	10-122			02/20/14	MS1.0 Low
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EPA 549.2 - Quality Control

Batch: A402181

Prepared: 02/20/2014

Prep Method: EPA 549.2

Analyst: PYA

Blank (A402181-BLK1)

Diquat	ND	4.0	ug/L							02/25/14	
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Blank Spike (A402181-BS1)

Diquat	3.5	4.0	ug/L	4.0		87	70-130			02/25/14	
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Blank Spike Dup (A402181-BSD1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 549.2 - Quality Control

Batch: A402181

Prepared: 02/20/2014

Prep Method: EPA 549.2

Analyst: PYA

Blank Spike Dup (A402181-BSD1)

Diquat	3.3	4.0	ug/L	4.0		83	70-130	5	30	02/25/14	
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Matrix Spike (A402181-MS1), Source: A4B1386-01

Diquat	3.7	4.0	ug/L	4.0	ND	92	70-130			02/25/14	
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Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of Oregon - NELAP	4021	State of Washington	C997
State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA

BSK is not accredited under the NELAC program for the following parameters:

A4B1386



Monterey Bay Analytical

Monte6227



02192014

Turnaround: Standard
Due Date: 2/26/2014

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
(559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

A4B1386
Monte6227

Appendix G
02/19/2014
5



TEMP: 4.0

* Required Fields

Client/Company Name * Monterey Bay Analytical		Report Attention * David Holland		Phone * #: (831)-357-6227 FAX * #: (831)-641-0734		ANALYSIS REQUESTED											
Address * 4 Justin Ct.		City * Monterey	State * CA	Zip * 93940		Carbon Copies: CDHS <input type="checkbox"/> Fresno Co <input type="checkbox"/> EPA <input type="checkbox"/> Merced Co <input type="checkbox"/> Tulare Co <input type="checkbox"/> Other:		EPA 504	EPA 515	EPA 524 plus oxygenates	EPA 525	EPA 531	EPA 547	EPA 548	EPA 549		
Project Information: Cal Am			PO # Quote # 464		Regulatory Compliance Electronic Data Transfer: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> System No. *												
How would you like your completed results sent? <input checked="" type="checkbox"/> E-Mail <input type="checkbox"/> Fax <input type="checkbox"/> EDD <input type="checkbox"/> Mail Only						QC Request <input checked="" type="checkbox"/> STD <input type="checkbox"/> Level II										Result Request ** Surcharge <input type="checkbox"/> STD <input checked="" type="checkbox"/> 5 Day** <input type="checkbox"/> 2 Day** <input type="checkbox"/> 1 Day**	
Sampler Name Printed / Signature Nathan Renolds		Matrix Types: RSW = Raw Surface Water CFW = Chlorinated Finished Water CWW = Chlorinated Waste Water BW = Bottled Water RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid															
Sample #	# Bottles	Sampled Date Time		Sample Description / Location *	Matrix *	Comments / Station Code											
1		2/18	12:15	CX-B1WQ Zone #1	RGW	11850	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
				5 day TAT please													
				Conductivity 36,000 uS/cm													
Relinquished by: (Signature and Printed Name) David Holland				Company MBAS	Date 2/18	Time 1600	Received by: (Signature and Print Name)				Company						
Relinquished by: (Signature and Printed Name)				Company	Date	Time	Received by: (Signature and Print Name)				Company						
Received At Lab by: (Signature and Printed Name) Cell Lafayette				Company	Date 2/19/18	Time 1020	Payment Received at Delivery: Date: Amount: Check/Cash/Card PIA # Init.										
Shipping Method: CAO UPS GSO WALK-IN SJVC FEDEX OTHER				Cooling Method: WET BLUE NONE		Packing Material: BW/FOAM/Airbag											

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-re-billing charges and interest calculated at 1 1/2 % per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collections, including attorneys' fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 3:00 pm will begin the next business day.



Sample Integrity

BSK Bottles. Yes No

Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$			Were correct containers and preservatives received for the tests requested?		
	Yes	No	NA	Yes	No	NA
COC Info	If samples were taken today, is there evidence that chilling has begun?			Were there bubbles in the VOA vials? (Volatiles Only)		
	Did all bottles arrive unbroken and intact?			Was a sufficient amount of sample received?		
	Did all bottle labels agree with COC?			Do samples have a hold time <72 hours?		
	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?			Was PM notified of discrepancies? PM: _____ By/Time: _____		
Bottles Received <small>means preservation/chlorine checks are either N/A or are performed in the lab</small>	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?			
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—			
	None (P) ^{White Cap}	—	—			
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y N			
	HNO_3 (P) ^{Red Cap}	—	—			
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y N			
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y N			
	NaOH + ZnAc (P)	pH ≥ 9	Y N			
	Dissolved Oxygen 300ml (g)	—	—			
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—			
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ 1-Liter (Brown P) 549	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) ^{Orange Label} 531	pH = 3	Y N			
	NH_4Cl (AG) ^{Purple Label} 552	—	—			
	EDA (AG) ^{Brown Label} DBPs	—	—			
	Ascorbic + Maleic (AG) ^{LT Green Label} 524.3	—	—			
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—			
Buffer pH 4 (CG)	—	—				
None (CG)	—	—				
H_3PO_4 (CG) ^{Salmon Label}	—	—				
Other:						
Asbestos 1Liter Plastic w/ Foil	—	—				
Low Level Hg / Metals Double Baggie	—	—				
Bottled Water	—	—				
Clear Glass Jar 250 / 500 / 1 Liter	—	—				
Soil Tube Brass / Steel / Plastic	—	—				
Tedlar Bag / Plastic Bag	—	—				
Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials
	S P			S P		
Comments	S P			S P		
	<p><i>Handwritten notes:</i> IC, 2C, 3A, 7V, LV, 3V, 2/19/14</p>					

*Ceres Analytical Laboratory, Inc.
4919 Windplay Dr., Suite 1
El Dorado Hills, CA 95762*

February 24, 2014

Ceres ID: 10262

Monterey Bay Analytical
Mr. David Holland
4 Justin Court, Ste. D
Monterey, CA 93940

Mr. Holland,

Enclosed please find the results for one aqueous sample received on February 19, 2014. This sample was analyzed for 2,3,7,8-TCDD by EPA 1613. Rush 5 day turn-around time was provided for this work.

This work was authorized under M.B.A.'s Project # 11850.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

The Sample Tracking Section includes all external and internal chain of custodies, laboratory bench sheets, and any special instructions received.

If you have any questions regarding this report, please feel free to contact me at (888)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

<u>Ceres Sample ID:</u>	<u>Sample ID</u>	<u>Date Received</u>	<u>Collection Date & Time</u>
10262-001	CX-B1WQ Zone #1 (274-284 ft bags)	2/19/2014	2/18/2014 12:15

Section II: Data Summary

Sample ID: Method Blank								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-MB001	Date Received:	NA
Project:	11850		Sample Size:	1.000 L	QC Batch #:	1156	Date Extracted:	21-Feb-14
Date Collected:	NA				ZB-5 MS Analysis Date:	22-Feb-14		
Time Collected:	NA							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	3.66			<u>IS</u> ¹³ C-2,3,7,8-TCDD	110	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	119	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JMH			Reviewed by:	BS			

Sample ID: Ongoing Precision and Recovery								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-OPR001	Date Received:	NA
Project:	11850		Sample Size:	1.000 L	QC Batch #:	1156	Date Extracted:	21-Feb-14
Date Collected:	NA				ZB-5 MS Analysis Date:	22-Feb-14		
Time Collected:	NA							
Analyte	Conc. (ng/ml)	Limits^a	Qualifiers		Labeled Standards	Conc.	Limits^a	Qualifiers
2,3,7,8-TCDD	9.88	7.3-14.6			IS ¹³ C-2,3,7,8-TCDD	98.3	25-141	
					CRS ³⁷ Cl ₄ -2,3,7,8-TCDD	10.1	3.7-15.8	
					<i>a. Method acceptance criteria .</i>			
Analyst: JMH				Reviewed by: BS				

Sample ID: CX-B1WQ Zone #1 (274-284 ft bags)								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	10262-001	Date Received:	19-Feb-14
Project:	11850		Sample Size:	1.058 L	QC Batch #:	1156	Date Extracted:	21-Feb-14
Date Collected:	18-Feb-14				ZB-5 MS Analysis Date:	22-Feb-14		
Time Collected:	12:15							
Analyte	Conc. (pg/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standards	% R	LCL-UCL ^c	Qualifiers
2,3,7,8-TCDD	ND	1.98			<u>IS</u> ¹³ C-2,3,7,8-TCDD	99.3	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	103	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JMH			Reviewed by:	BS			

Section VI: Sample Tracking

Ceres Analytical Laboratory, Inc.

4919 Windplay Dr. Suite 1
 El Dorado Hills, CA 95762
 Tel: (916)932-5011

Chain of Custody

Please Print in Pen

Ceres Use Only

Page Appendix G

Ceres Project ID: _____
 Temperature: _____ °C

Reports and invoices will be delivered by email in .pdf format

Client Information	Invoice Information (if different from Client Info)	Project Information
Company Name: _____ Monterey Bay Analytical Contact Name: _____ David Holland Address: 4 Justin Court Ste D Monterey CA 93940 Ph: 831-375-6227 Email: montereybayanalytical@usa.net	Company Name: _____ Same Contact Name: _____ Address: _____ Ph: _____ Fx: _____ Email: _____	Ceres Quote #: _____ P.O. #: _____ Project ID: _____ TAT (business days) <u>5</u> Std 15 days; Rush TAT available please call

Matrix abbreviations:

A: Aqueous S: Soil AS: Ash DW: Drinking Water
 E: Effluent SD: Sediment C: Clay SO: Solid
 I: Influent SL: Sludge CS: Clay Slurry O: Other (please comment)

	Sample ID	Sample Collection			Matrix	# of containers	EPA 1613	EPA 8290	NCASI 551	EPA 8280	EPA 613	Other	TEF
		Date	Time										<input type="checkbox"/> 1998 WHO <input type="checkbox"/> 2005 WHO <input type="checkbox"/> Other
1	CX-B1WQ Zone #1 (274-284 ft bags)	2/18/2014	12:15	Aq	2	X							11850
2													(2,3,7,8 TCDD only)
3													5 day Rush Please
4													
5													
6													
7													
8													
9													
10													
11													
12													

Samples will be disposed of 45 days after submission of report, unless other provisions have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (signature and Printed Name)	Date	Time
David Holland	2/18/2014	16:00	James M. Hedin	2/19/14	09:28

Client understands that all terms described in the proposals, quotations, and/or the general terms and conditions of Ceres Analytical Laboratory will be followed.
 Ceres Analytical Laboratory reserves the right to terminate its service or withhold delivery of reports, if in Ceres' discretion the terms of the project have been broken.

SEC = 36,000 µS/cm

Sample Receipt Check List

Ceres ID: 10262	Date/Time: 2/19/14 09:28
Client Project ID: 11850	Received Temperature: 2.1°C Acceptable: <input checked="" type="radio"/> Y / <input type="radio"/> N
Chain of Custody Relinquished by signed?	<input checked="" type="radio"/> Y / <input type="radio"/> N
Custody Seals? Present?	<input type="radio"/> Y / <input type="radio"/> N
Intact?	<input type="radio"/> Y / <input type="radio"/> N
NA:	<input checked="" type="radio"/> NA
Unlabeled / Illegible Samples	<input type="radio"/> Y / <input checked="" type="radio"/> N
Proper Containers:	<input checked="" type="radio"/> Y / <input type="radio"/> N
Preservation Acceptable (Chemical or Temperature)?	<input checked="" type="radio"/> Y / <input type="radio"/> N
Drinking Water, Sodium Thiosulfate present? No Residual Cl	<input type="radio"/> Y / <input checked="" type="radio"/> N / <input checked="" type="radio"/> NA
List COC discrepancies:	<i>2/19/14</i>
List Damaged Samples:	<i>2/19/14</i>

Ceres Analytical Laboratory

Process Request

Ceres ID: 10262 PB: 1156 Sample #s: 1 Due Date: 2/25/14

Matrix (circle one): Drinking Water Aqueous Effluent Influent Ash
 Solid Soil Sediment Sludge Clay/Clay Slurry Other: _____

Method (check one):

 1613 2,3,7,8-TCDD 8290 2,3,7,8-TCDD 1613 2,3,7,8-TCDD/F 8290 2,3,7,8-TCDD/F 1613 Cl₄-Cl₈ 8290 Cl₄-Cl₈ 8280 2,3,7,8-TCDD NCASI 551 8280 2,3,7,8-TCDD/F 8280 Appendix IX 8280 Cl₄-Cl₈

Instructions:

Method: 1613
 SOP #: 301.1

Ceres Analytical Laboratory

Sample Prep Bench Sheet

Ceres ID	Client ID	Ver.	wt/vol	ISS/PAR		CSS		AP	AB/AC	FC	RSS	
				chem/date/witness	chem/date/witness	chem/date/witness	chem/date/witness				chem/date/witness	chem/date/witness
0-1156-MB001	Method Blank		1.000L	J 2/21/14 ML	J 2/22/14 ML	NA	J 2/22/14	NA	J 2/22/14	NA	J 2/22/14 ML	
0-1156-OPR001	OPR		1.000L	ⓐ ↓	↓	↓	↓	↓	↓	↓	↓	↓
10262-1156-001	CX-B1WQ Zone #1	✓	1.058L	↓	↓	↓	↓	↓	↓	↓	↓	↓

Comments: ⓐ Spiked w/ N55

Soxhlet Start: 14:00 2/21/14
 Soxhlet Stop: 06:28 2/22/14

Samples Logged out by: J 2/21/14 11:30
 Samples Returned by: NA
 Note samples Depleted: "A"

Sample Extracts Storage Location: Box 8
 Extracts to Instrument: 09:20 2/22/14 J
 Extracts returned to Storage Location: 09:30 2/24/14 J

Method: 1653
SOP #: 301.1

Ceres Analytical Laboratory
Sample Prep Bench Sheet

Standard	Standard ID	Vol.	Expiration Date
ISS	S031212A	100ul	3/12/14
NSS	S031212B	100ul	3/12/14
CSS	S031212C	100ul	3/12/14
RSS	S031212D	200ul	3/12/12

Solvents/Solutions/Packing Materials

Name	Amount	Lot #	Exp. Date
Toluene	450 ml	B4020	6/10/14
Sigel	4 g	P020514A	8/5/14
Hexane	30, 20, 100, 20	136735	6/10/14
Basigel	4 g	P012014A	7/20/14
Acid gel	8 g	P012014B	7/20/14
Acid Al	6 g	P020414A	8/4/14
N92504	1.5 g	P120414A	6/4/14
20% Pcm Hex	30 ml	L021914A	8/19/14

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*	Results taken from dilution.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery

CERTIFICATE OF ANALYSIS

Client: Monterey Bay Analytical Services 4 Justin Court, Suite D Monterey CA, 93940	Report Date: 02/26/14 15:54
Attention: David Holland	Received Date: 02/19/14 08:45
Phone: (831) 375-6227	Turn Around: 5 workdays
Fax: (831) 641-0734	Client Project: Cal Am
Work Order(s): 4B19035	

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

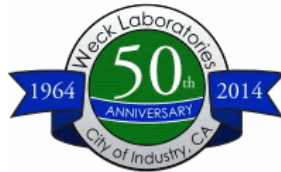
Dear David Holland :

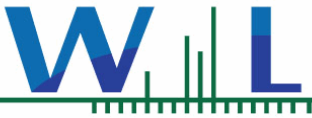
Enclosed are the results of analyses for samples received 02/19/14 08:45 with the Chain of Custody document. The samples were received in good condition, at 5.2 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager





Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/19/14 08:45
Date Reported: 02/26/14 15:54

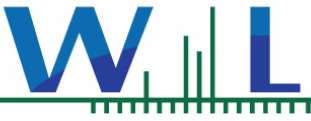
ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
CX-B1WQ Zone #1 (274-284)	Nathan Reynolds	11146	4B19035-01	Water	02/18/14 12:15

ANALYSES

Anions by IC, EPA Method 300.0/300.1/326

Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/19/14 08:45
Date Reported: 02/26/14 15:45

4B19035-01 CX-B1WQ Zone #1 (274-284)

Sampled: 02/18/14 12:15

Sampled By: Nathan Reynolds

Matrix: Water

Sample Note: 11146

Anions by IC, EPA Method 300.0/300.1/326

Method: EPA 9056A

Batch: W4B0889

Prepared: 02/20/14 09:30

Analyst: atl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Iodide	ND	250	ug/l	25	02/20/14 15:41	M-05

Chlorinated Pesticides and/or PCBs

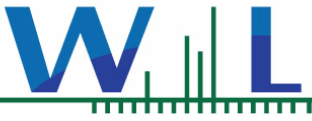
Method: EPA 508

Batch: W4B0898

Prepared: 02/20/14 14:56

Analyst: mxw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
4,4'-DDD	ND	0.010	ug/l	1	02/24/14 18:28	
4,4'-DDE	ND	0.010	ug/l	1	02/24/14 18:28	
4,4'-DDT	ND	0.010	ug/l	1	02/24/14 18:28	
Aldrin	ND	0.010	ug/l	1	02/24/14 18:28	
alpha-BHC	ND	0.010	ug/l	1	02/24/14 18:28	
Aroclor 1016	ND	0.10	ug/l	1	02/24/14 18:28	
Aroclor 1221	ND	0.10	ug/l	1	02/24/14 18:28	
Aroclor 1232	ND	0.10	ug/l	1	02/24/14 18:28	
Aroclor 1242	ND	0.10	ug/l	1	02/24/14 18:28	
Aroclor 1248	ND	0.10	ug/l	1	02/24/14 18:28	
Aroclor 1254	ND	0.10	ug/l	1	02/24/14 18:28	
Aroclor 1260	ND	0.10	ug/l	1	02/24/14 18:28	
beta-BHC	ND	0.010	ug/l	1	02/24/14 18:28	
Chlordane (tech)	ND	0.10	ug/l	1	02/24/14 18:28	
Chlorothalonil	ND	0.050	ug/l	1	02/24/14 18:28	
delta-BHC	ND	0.010	ug/l	1	02/24/14 18:28	
Dieldrin	ND	0.010	ug/l	1	02/24/14 18:28	
Endosulfan I	ND	0.010	ug/l	1	02/24/14 18:28	
Endosulfan II	ND	0.010	ug/l	1	02/24/14 18:28	
Endosulfan sulfate	ND	0.010	ug/l	1	02/24/14 18:28	
Endrin	ND	0.010	ug/l	1	02/24/14 18:28	
Endrin aldehyde	ND	0.010	ug/l	1	02/24/14 18:28	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	02/24/14 18:28	
Heptachlor	ND	0.010	ug/l	1	02/24/14 18:28	
Heptachlor epoxide	ND	0.010	ug/l	1	02/24/14 18:28	
Hexachlorobenzene	ND	0.010	ug/l	1	02/24/14 18:28	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	02/24/14 18:28	
Methoxychlor	ND	0.010	ug/l	1	02/24/14 18:28	
PCBs, Total	ND	0.50	ug/l	1	02/24/14 18:28	
Propachlor	ND	0.050	ug/l	1	02/24/14 18:28	
Toxaphene	ND	1.0	ug/l	1	02/24/14 18:28	
Trifluralin	ND	0.010	ug/l	1	02/24/14 18:28	
Surr: Decachlorobiphenyl	8 %	Conc:0.00769	70-130	%		S-GC
Surr: Tetrachloro-meta-xylene	71 %	Conc:0.0677	70-130	%		



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/19/14 08:45
Date Reported: 02/26/14 15:54

4B19035-01 CX-B1WQ Zone #1 (274-284)

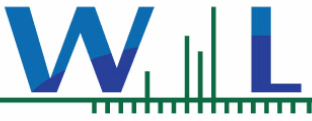
Sampled: 02/18/14 12:15

Sampled By: Nathan Reynolds

Matrix: Water

Sample Note: 11146

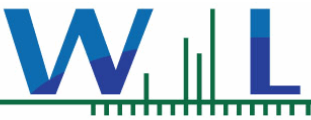
Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/19/14 08:45
Date Reported: 02/26/14 15:54

QUALITY CONTROL SECTION



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/19/14 08:45
Date Reported: 02/26/14 15:54

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

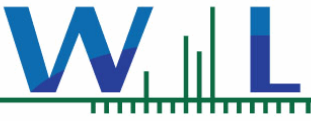
Batch W4B0889 - EPA 9056A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0889-BLK1)				Analyzed: 02/20/14 15:41						
Iodide	ND	10	ug/l							
LCS (W4B0889-BS1)				Analyzed: 02/20/14 15:41						
Iodide	40.0	10	ug/l	40.0		100	85-115			
Duplicate (W4B0889-DUP1)				Source: 4B06015-02 Analyzed: 02/20/14 15:41						
Iodide	63.0	25	ug/l		63.9			1	20	
Matrix Spike (W4B0889-MS1)				Source: 4B06015-02 Analyzed: 02/20/14 15:41						
Iodide	176	25	ug/l	100	63.9	112	80-120			
Matrix Spike Dup (W4B0889-MSD1)				Source: 4B06015-02 Analyzed: 02/20/14 15:41						
Iodide	149	25	ug/l	100	63.9	85	80-120	17	20	

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B0898 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0898-BLK1)				Analyzed: 02/24/14 16:56						
4,4'-DDD	ND	0.010	ug/l							
4,4'-DDE	ND	0.010	ug/l							
4,4'-DDT	ND	0.010	ug/l							
Aldrin	ND	0.010	ug/l							
alpha-BHC	ND	0.010	ug/l							
Aroclor 1016	ND	0.10	ug/l							
Aroclor 1221	ND	0.10	ug/l							
Aroclor 1232	ND	0.10	ug/l							
Aroclor 1242	ND	0.10	ug/l							
Aroclor 1248	ND	0.10	ug/l							
Aroclor 1254	ND	0.10	ug/l							
Aroclor 1260	ND	0.10	ug/l							
beta-BHC	ND	0.010	ug/l							
Chlordane (tech)	ND	0.10	ug/l							
Chlorothalonil	ND	0.050	ug/l							
delta-BHC	ND	0.010	ug/l							
Dieldrin	ND	0.010	ug/l							
Endosulfan I	ND	0.010	ug/l							
Endosulfan II	ND	0.010	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							
Endrin	ND	0.010	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.010	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.010	ug/l							
Hexachlorobenzene	ND	0.010	ug/l							
Hexachlorocyclopentadiene	ND	0.050	ug/l							



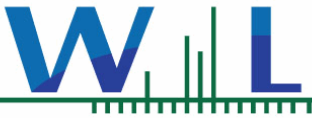
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/19/14 08:45
Date Reported: 02/26/14 15:54

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B0898 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0898-BLK1)										
Analyzed: 02/24/14 16:56										
Methoxychlor	ND	0.010	ug/l							
PCBs, Total	ND	0.50	ug/l							
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
Surr: Decachlorobiphenyl	0.0779		ug/l	0.100		78	70-130			
Surr: Tetrachloro-meta-xylene	0.0735		ug/l	0.100		74	70-130			
LCS (W4B0898-BS1)										
Analyzed: 02/24/14 17:27										
4,4'-DDD	0.0795	0.010	ug/l	0.100		80	55-142			
4,4'-DDE	0.0817	0.010	ug/l	0.100		82	49-129			
4,4'-DDT	0.0894	0.010	ug/l	0.100		89	54-160			
Aldrin	0.0689	0.010	ug/l	0.100		69	29-115			
alpha-BHC	0.0784	0.010	ug/l	0.100		78	59-131			
beta-BHC	0.0788	0.010	ug/l	0.100		79	63-136			
delta-BHC	0.0876	0.010	ug/l	0.100		88	59-137			
Dieldrin	0.0830	0.010	ug/l	0.100		83	59-135			
Endosulfan I	0.0700	0.010	ug/l	0.100		70	28-138			
Endosulfan II	0.0744	0.010	ug/l	0.100		74	53-133			
Endosulfan sulfate	0.0822	0.010	ug/l	0.100		82	58-155			
Endrin	0.0710	0.010	ug/l	0.100		71	57-148			
Endrin aldehyde	0.0676	0.010	ug/l	0.100		68	45-139			
gamma-BHC (Lindane)	0.0802	0.010	ug/l	0.100		80	59-129			
Heptachlor	0.0783	0.010	ug/l	0.100		78	42-136			
Heptachlor epoxide	0.0805	0.010	ug/l	0.100		80	59-134			
Methoxychlor	0.0770	0.010	ug/l	0.100		77	56-167			
Surr: Decachlorobiphenyl	0.0839		ug/l	0.100		84	70-130			
Surr: Tetrachloro-meta-xylene	0.0742		ug/l	0.100		74	70-130			
LCS Dup (W4B0898-BSD1)										
Analyzed: 02/25/14 09:31										
4,4'-DDD	0.0977	0.010	ug/l	0.100		98	55-142	21	25	
4,4'-DDE	0.0993	0.010	ug/l	0.100		99	49-129	20	25	
4,4'-DDT	0.101	0.010	ug/l	0.100		101	54-160	13	25	
Aldrin	0.0774	0.010	ug/l	0.100		77	29-115	12	25	
alpha-BHC	0.0891	0.010	ug/l	0.100		89	59-131	13	25	
beta-BHC	0.0918	0.010	ug/l	0.100		92	63-136	15	25	
delta-BHC	0.103	0.010	ug/l	0.100		103	59-137	16	25	
Dieldrin	0.0977	0.010	ug/l	0.100		98	59-135	16	25	
Endosulfan I	0.0821	0.010	ug/l	0.100		82	28-138	16	25	
Endosulfan II	0.0892	0.010	ug/l	0.100		89	53-133	18	25	
Endosulfan sulfate	0.0953	0.010	ug/l	0.100		95	58-155	15	25	
Endrin	0.0853	0.010	ug/l	0.100		85	57-148	18	25	
Endrin aldehyde	0.0835	0.010	ug/l	0.100		84	45-139	21	25	
gamma-BHC (Lindane)	0.0909	0.010	ug/l	0.100		91	59-129	12	25	
Heptachlor	0.0845	0.010	ug/l	0.100		85	42-136	8	25	
Heptachlor epoxide	0.0950	0.010	ug/l	0.100		95	59-134	17	25	



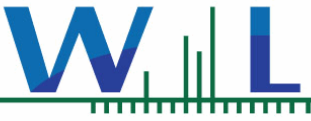
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/19/14 08:45
Date Reported: 02/26/14 15:54

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B0898 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W4B0898-BSD1)										
Analyzed: 02/25/14 09:31										
Methoxychlor	0.0862	0.010	ug/l	0.100		86	56-167	11	25	
Surr: Decachlorobiphenyl	0.0979		ug/l	0.100		98	70-130			
Surr: Tetrachloro-meta-xylene	0.0763		ug/l	0.100		76	70-130			



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/19/14 08:45
Date Reported: 02/26/14 15:54

Notes and Definitions

S-GC	Surrogate recovery outside of control limits due to a possible matrix effect . The data was accepted based on valid recovery of the remaining surrogate.
M-05	Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

AB12002
SAMPLE ID **Zone 1 Total**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	4646	0.04350	202.10
Potassium	54	0.02558	1.38
Calcium	2718	0.04990	135.63
Magnesium	1040	0.08229	85.58
NH3-N	0	0.07143	0.00
		SUM	424.69

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	118	0.02000	2.36
Sulfate	1760	0.02082	36.64
Chloride	14184	0.02821	400.13
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0	0.07138	0.00
Phosphate-P	0.1	0.01031	0.00
Fluoride	0.2	0.05264	0.01
Bromide	41.0	0.01252	0.51
		SUM	439.66

ANION-CATION BALANCE: **-2** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	36940	
Cation Sum X 100	42469	115%
Anion Sum X 100	43966	119%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	19.2
Ca+Mg+Na	423.31
HCO3/Ca	0.02
dS/m	36.94
Value Table II	1.5
SAR adj	30.6

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

Cal Am Water Company
 Travis Peterson
 511 Pacific Lodge Road, Suite 100
 Pacific Grove, CA 93950

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net

ELAP Certification Number: 2385

Lab Number: AB11965

Collection Date/Time: 2/19/2014 16:10 Sample Collector: REYNOLDS, N
 Submittal Date/Time: 2/19/2014 17:33 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-BIWQ Zone #2 (237-247 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	132		2		2/20/2014	LRH
Aluminum, Total	EPA200.8	ug/L	Not Detected	E	10	1000	2/27/2014	MC LAB
Ammonia-N, Dissolved	SM4500NH3 D	mg/L	Not Detected		0.05		2/25/2014	DH
Arsenic, Total	EPA200.8	ug/L	Not Detected	E	1	10	2/27/2014	MC LAB
Barium, Dissolved	EPA200.8	ug/L	210	E	10		2/27/2014	MC LAB
Bicarbonate (as HCO3-)	SM2320B	mg/L	161		10		2/21/2014	SM
Boron, Dissolved	EPA200.7	mg/L	0.73		0.05		2/21/2014	DC
Bromide, Dissolved	EPA300.0	mg/L	24		0.1		2/20/2014	DC
Calcium	EPA200.7	mg/L	1581		0.5		2/21/2014	DC
Calcium, Dissolved	EPA200.7	mg/L	1558		0.5		2/21/2014	DC
Carbamates by HPLC (EPA 531)	EPA531	ug/L	Not Detected	E			2/25/2014	BSK
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		2/21/2014	SM
Chloride, Dissolved	EPA300.0	mg/L	8796		1		2/20/2014	DC
Chlorinated Pesticides and PCB (EP	EPA508	ug/L	Attached (ND)	E			2/25/2014	WECK
Color, Apparent (Unfiltered)	SM2120B	Color Units	14		3	15	2/20/2014	LRH
Copper, Total	EPA200.8	ug/L	Not Detected	E	4	1300	2/27/2014	MC LAB
DBCP & EDB	EPA504.1	ug/L	Not Detected	E			2/26/2014	BSK
Dioxin	EPA-5 1613B	pg/L	Attached (ND)	E			2/22/2014	CERES
Diquat (EPA 549)	EPA549	ug/L	Not Detected	E			2/25/2014	BSK
Endothall	EPA548.1	ug/L	Not Detected	E			2/26/2014	BSK
Fluoride, Dissolved	EPA300.0	mg/L	0.1		0.1		2/20/2014	DC
Glyphosate	EPA547	ug/L	Not Detected	E			2/22/2014	BSK
Hardness (as CaCO3)	SM2340B	mg/L	6723		10		2/26/2014	DH
Hydroxide	SM2320B	mg/L	Not Detected		5		2/21/2014	SM
Iodide	EPA9056M	ug/L	Attached (ND)	E	10		2/22/2014	WECK
Iron	EPA200.7	ug/L	2643		10	300	2/21/2014	DC
Iron, Dissolved	EPA200.7	ug/L	2539		10	300	2/21/2014	DC
Kjehldahl Nitrogen, Dissolved	SM4500-NH3 B,	mg/L	0.4	J	0.5		2/25/2014	HM
Lithium	EPA200.8	ug/L	120	E	1		2/27/2014	MC LAB
Magnesium	EPA200.7	mg/L	674		0.5		2/21/2014	DC
Magnesium, Dissolved	EPA200.7	mg/L	683		1		2/21/2014	DC
Manganese, Dissolved	EPA200.7	ug/L	166		10	50	2/21/2014	DC
MBAS (Surfactants)	SM5540C	mg/L	Not Detected		0.05	0.50	2/20/2014	DC
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	2/20/2014	DC
Nitrate+Nitrite as N	EPA300.0	mg/L	0.2		0.1		2/20/2014	DC
Nitrite as NO2-N, Dissolved	EPA300.0	mg/L	Not Detected		0.1		2/20/2014	DC
Odor Threshold at 60 C	SM2150B	TON	1		1	3	2/20/2014	LRH
o-Phosphate-P, Dissolved	Hach 8190	mg/L	0.09		0.1		2/24/2014	DH
pH (Field Test)	SM4500-H+B	pH	6.79				2/19/2014	NR

Lab Number: AB11965**Appendix G**

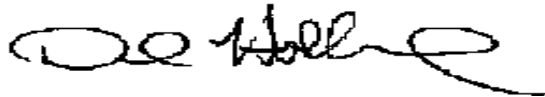
Collection Date/Time: 2/19/2014 16:10 Sample Collector: REYNOLDS, N
 Submittal Date/Time: 2/19/2014 17:33 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-BIWQ Zone #2 (237-247 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
pH (Laboratory)	SM4500-H+B	pH (H)	6.9				2/20/2014	HM
Phenoxy Acid Herbicides (515.3)	EPA515.3	ug/L	Not Detected	E			2/26/2014	BSK
Phosphorus, Dissolved	HACH 8190	mg/L	0.10		0.03		2/24/2014	DH
Potassium, Dissolved	EPA200.7	mg/L	35		0.1		2/21/2014	DC
QC Ratio TDS/SEC	Calculation		0.59				2/24/2014	DH
Reg. Org. Compounds (EPA 525)	EPA525	ug/L	Not Detected	E			2/26/2014	BSK
Silica as SiO ₂ , Dissolved	EPA200.7	mg/L	Not Detected		0.5		2/21/2014	DC
Sodium, Dissolved	EPA200.7	mg/L	2914		0.5		2/21/2014	DC
Specific Conductance (E.C)	SM2510B	umhos/cm	24570		1	900	2/20/2014	HM
Specific Conductance (E.C) (Field)	SM2510B	umhos/cm	23705		1		2/19/2014	NR
Strontium, Dissolved	EPA200.8	ug/L	11,000	E	5		2/27/2014	MC LAB
Sulfate	EPA300.0	mg/L	991		1	250	2/20/2014	DC
Temperature (Field)	SM2550	° C	18.7				2/19/2014	NR
Total Diss. Solids	SM2540C	mg/L	14600		10	500	2/20/2014	HM
Turbidity	EPA180.1	NTU	2.9		0.05	5.0	2/20/2014	LRH
Turbidity (Field)	EPA180.1	NTU	1.20		0.05		2/19/2014	NR
Volatile Org. Compounds (524)	EPA524	ug/L	Not Detected	E			2/25/2014	BSK
Zinc, Total	EPA200.8	ug/L	Not Detected	E	10	5000	2/27/2014	MC LAB

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID AB11965 Cal Am

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	2914	0.04350	126.76
Potassium	35	0.02558	0.90
Calcium	1558	0.04990	77.74
Magnesium	683	0.08229	56.20
NH3-N	0	0.07143	0.00
		SUM	261.60

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	132	0.02000	2.64
Sulfate	991	0.02082	20.63
Chloride	8796	0.02821	248.14
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0	0.07138	0.00
Phosphate-P	0.1	0.01031	0.00
Fluoride	0.1	0.05264	0.01
Bromide	24.0	0.01252	0.30
		SUM	271.71

ANION-CATION BALANCE: **-2** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	24570	
Cation Sum X 100	26160	106%
Anion Sum X 100	27171	111%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	15.5
Ca+Mg+Na	260.71
HCO3/Ca	0.03
dS/m	24.57
Value Table II	1.5
SAR adj	23.6

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

CERTIFICATE OF ANALYSIS

Client: Monterey Bay Analytical Services 4 Justin Court, Suite D Monterey CA, 93940	Report Date: 02/28/14 10:47
Attention: David Holland	Received Date: 02/21/14 09:45
Phone: (831) 375-6227	Turn Around: 5 workdays
Fax: (831) 641-0734	Client Project: Cal Am
Work Order(s): 4B21008	

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear David Holland :

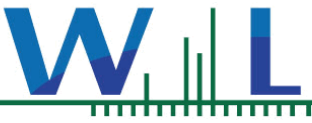
Enclosed are the results of analyses for samples received 02/21/14 09:45 with the Chain of Custody document. The samples were received in good condition, at 6.7 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager





Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/21/14 09:45
Date Reported: 02/28/14 10:47

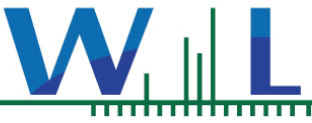
ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
CX-B1WQ Zone #2 (274-284)	Nathan Reynolds	11965	4B21008-01	Water	02/19/14 16:10

ANALYSES

Anions by IC, EPA Method 300.0/300.1/326

Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/21/14 09:45
Date Reported: 02/28/14 10:47

4B21008-01 CX-B1WQ Zone #2 (274-284)

Sampled: 02/19/14 16:10

Sampled By: Nathan Reynolds

Matrix: Water

Sample Note: 11965

Anions by IC, EPA Method 300.0/300.1/326

Method: EPA 9056A

Batch: W4B1249

Prepared: 02/22/14 08:30

Analyst: atl

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Iodide	ND	5.2	120	ug/l	12.5	02/22/14 13:16	M-05

Chlorinated Pesticides and/or PCBs

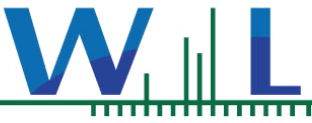
Method: EPA 508

Batch: W4B0996

Prepared: 02/22/14 08:58

Analyst: mxw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
4,4'-DDD	ND	0.010	ug/l	1	02/25/14 10:32	
4,4'-DDE	ND	0.010	ug/l	1	02/25/14 10:32	
4,4'-DDT	ND	0.010	ug/l	1	02/25/14 10:32	
Aldrin	ND	0.010	ug/l	1	02/25/14 10:32	
alpha-BHC	ND	0.010	ug/l	1	02/25/14 10:32	
Aroclor 1016	ND	0.10	ug/l	1	02/25/14 10:32	
Aroclor 1221	ND	0.10	ug/l	1	02/25/14 10:32	
Aroclor 1232	ND	0.10	ug/l	1	02/25/14 10:32	
Aroclor 1242	ND	0.10	ug/l	1	02/25/14 10:32	
Aroclor 1248	ND	0.10	ug/l	1	02/25/14 10:32	
Aroclor 1254	ND	0.10	ug/l	1	02/25/14 10:32	
Aroclor 1260	ND	0.10	ug/l	1	02/25/14 10:32	
beta-BHC	ND	0.010	ug/l	1	02/25/14 10:32	
Chlordane (tech)	ND	0.10	ug/l	1	02/25/14 10:32	
Chlorothalonil	ND	0.050	ug/l	1	02/25/14 10:32	
delta-BHC	ND	0.010	ug/l	1	02/25/14 10:32	
Dieldrin	ND	0.010	ug/l	1	02/25/14 10:32	
Endosulfan I	ND	0.010	ug/l	1	02/25/14 10:32	
Endosulfan II	ND	0.010	ug/l	1	02/25/14 10:32	
Endosulfan sulfate	ND	0.010	ug/l	1	02/25/14 10:32	
Endrin	ND	0.010	ug/l	1	02/25/14 10:32	
Endrin aldehyde	ND	0.010	ug/l	1	02/25/14 10:32	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	02/25/14 10:32	
Heptachlor	ND	0.010	ug/l	1	02/25/14 10:32	
Heptachlor epoxide	ND	0.010	ug/l	1	02/25/14 10:32	
Hexachlorobenzene	ND	0.010	ug/l	1	02/25/14 10:32	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	02/25/14 10:32	
Methoxychlor	ND	0.010	ug/l	1	02/25/14 10:32	
PCBs, Total	ND	0.50	ug/l	1	02/25/14 10:32	
Propachlor	ND	0.050	ug/l	1	02/25/14 10:32	
Toxaphene	ND	1.0	ug/l	1	02/25/14 10:32	
Trifluralin	ND	0.010	ug/l	1	02/25/14 10:32	
Surr: Decachlorobiphenyl	70 %	Conc:0.0667	70-130	%		
Surr: Tetrachloro-meta-xylene	115 %	Conc:0.110	70-130	%		



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/21/14 09:45
Date Reported: 02/28/14 10:47

4B21008-01 CX-B1WQ Zone #2 (274-284)

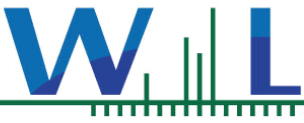
Sampled: 02/19/14 16:10

Sampled By: Nathan Reynolds

Matrix: Water

Sample Note: 11965

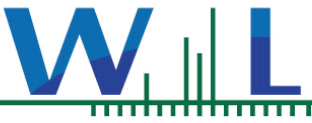
Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/21/14 09:45
Date Reported: 02/28/14 10:47

QUALITY CONTROL SECTION



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/21/14 09:45
Date Reported: 02/28/14 10:47

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

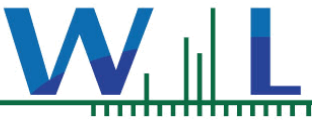
Batch W4B1249 - EPA 9056A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B1249-BLK1)				Analyzed: 02/22/14 13:16						
Iodide	ND	10	ug/l							
LCS (W4B1249-BS1)				Analyzed: 02/22/14 13:16						
Iodide	39.7	10	ug/l	40.0		99	85-115			
Matrix Spike (W4B1249-MS1)				Source: 4B21008-01 Analyzed: 02/22/14 13:16						
Iodide	459	120	ug/l	500	ND	92	80-120			
Matrix Spike Dup (W4B1249-MSD1)				Source: 4B21008-01 Analyzed: 02/22/14 13:16						
Iodide	434	120	ug/l	500	ND	87	80-120	6	20	

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B0996 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0996-BLK1)				Analyzed: 02/24/14 19:29						
4,4'-DDD	ND	0.010	ug/l							
4,4'-DDE	ND	0.010	ug/l							
4,4'-DDT	ND	0.010	ug/l							
Aldrin	ND	0.010	ug/l							
alpha-BHC	ND	0.010	ug/l							
Aroclor 1016	ND	0.10	ug/l							
Aroclor 1221	ND	0.10	ug/l							
Aroclor 1232	ND	0.10	ug/l							
Aroclor 1242	ND	0.10	ug/l							
Aroclor 1248	ND	0.10	ug/l							
Aroclor 1254	ND	0.10	ug/l							
Aroclor 1260	ND	0.10	ug/l							
beta-BHC	ND	0.010	ug/l							
Chlordane (tech)	ND	0.10	ug/l							
Chlorothalonil	ND	0.050	ug/l							
delta-BHC	ND	0.010	ug/l							
Dieldrin	ND	0.010	ug/l							
Endosulfan I	ND	0.010	ug/l							
Endosulfan II	ND	0.010	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							
Endrin	ND	0.010	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.010	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.010	ug/l							
Hexachlorobenzene	ND	0.010	ug/l							
Hexachlorocyclopentadiene	ND	0.050	ug/l							
Methoxychlor	ND	0.010	ug/l							
PCBs, Total	ND	0.50	ug/l							



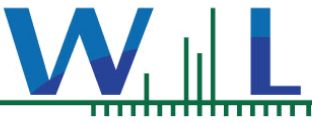
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/21/14 09:45
Date Reported: 02/28/14 10:47

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B0996 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0996-BLK1)										
Analyzed: 02/24/14 19:29										
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
<i>Surr: Decachlorobiphenyl</i>	0.0822		ug/l	0.100		82	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0845		ug/l	0.100		84	70-130			
LCS (W4B0996-BS1)										
Analyzed: 02/24/14 19:59										
4,4'-DDD	0.0807	0.010	ug/l	0.100		81	55-142			
4,4'-DDE	0.0825	0.010	ug/l	0.100		82	49-129			
4,4'-DDT	0.0914	0.010	ug/l	0.100		91	54-160			
Aldrin	0.0713	0.010	ug/l	0.100		71	29-115			
alpha-BHC	0.0804	0.010	ug/l	0.100		80	59-131			
beta-BHC	0.0776	0.010	ug/l	0.100		78	63-136			
delta-BHC	0.0882	0.010	ug/l	0.100		88	59-137			
Dieldrin	0.0815	0.010	ug/l	0.100		81	59-135			
Endosulfan I	0.0686	0.010	ug/l	0.100		69	28-138			
Endosulfan II	0.0741	0.010	ug/l	0.100		74	53-133			
Endosulfan sulfate	0.0844	0.010	ug/l	0.100		84	58-155			
Endrin	0.0718	0.010	ug/l	0.100		72	57-148			
Endrin aldehyde	0.0747	0.010	ug/l	0.100		75	45-139			
gamma-BHC (Lindane)	0.0808	0.010	ug/l	0.100		81	59-129			
Heptachlor	0.0797	0.010	ug/l	0.100		80	42-136			
Heptachlor epoxide	0.0793	0.010	ug/l	0.100		79	59-134			
Methoxychlor	0.0819	0.010	ug/l	0.100		82	56-167			
<i>Surr: Decachlorobiphenyl</i>	0.0892		ug/l	0.100		89	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0867		ug/l	0.100		87	70-130			
LCS Dup (W4B0996-BSD1)										
Analyzed: 02/24/14 20:30										
4,4'-DDD	0.0794	0.010	ug/l	0.100		79	55-142	2	25	
4,4'-DDE	0.0828	0.010	ug/l	0.100		83	49-129	0.4	25	
4,4'-DDT	0.0912	0.010	ug/l	0.100		91	54-160	0.3	25	
Aldrin	0.0709	0.010	ug/l	0.100		71	29-115	0.6	25	
alpha-BHC	0.0804	0.010	ug/l	0.100		80	59-131	0.03	25	
beta-BHC	0.0795	0.010	ug/l	0.100		80	63-136	2	25	
delta-BHC	0.0881	0.010	ug/l	0.100		88	59-137	0.06	25	
Dieldrin	0.0834	0.010	ug/l	0.100		83	59-135	2	25	
Endosulfan I	0.0702	0.010	ug/l	0.100		70	28-138	2	25	
Endosulfan II	0.0743	0.010	ug/l	0.100		74	53-133	0.2	25	
Endosulfan sulfate	0.0833	0.010	ug/l	0.100		83	58-155	1	25	
Endrin	0.0730	0.010	ug/l	0.100		73	57-148	2	25	
Endrin aldehyde	0.0795	0.010	ug/l	0.100		79	45-139	6	25	
gamma-BHC (Lindane)	0.0823	0.010	ug/l	0.100		82	59-129	2	25	
Heptachlor	0.0801	0.010	ug/l	0.100		80	42-136	0.5	25	
Heptachlor epoxide	0.0812	0.010	ug/l	0.100		81	59-134	2	25	
Methoxychlor	0.0822	0.010	ug/l	0.100		82	56-167	0.4	25	
<i>Surr: Decachlorobiphenyl</i>	0.0834		ug/l	0.100		83	70-130			



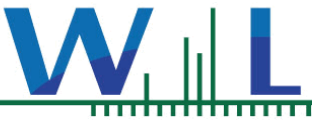
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/21/14 09:45
Date Reported: 02/28/14 10:47

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B0996 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W4B0996-BSD1)										
Analyzed: 02/24/14 20:30										
Surr: Tetrachloro-meta-xylene	0.0867		ug/l	0.100		87	70-130			



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/21/14 09:45
Date Reported: 02/28/14 10:47

Notes and Definitions

M-05	Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Appendix G

A4B1697

2/27/2014

Invoice: A404918

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

RE: Report for A4B1697 Cal Am

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 2/21/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAP Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montieth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montieth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: Monterey Bay Analytical
Report To: David Holland
Project #: -
Received: 2/21/2014 - 10:30
Report Due: 2/28/2014

Invoice To: Monterey Bay Analytical
Invoice Attn: David Holland
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 1.2	COC/Labels Agree
	Received On Wet Ice
	Packing Material - Bubble Wrap
	Sample(s) were received in temperature range.
	Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- MS1.1 Matrix spike recovery exceeds upper control limit. Reported results for parent matrix may be biased high due to matrix interferences.

Report Distribution

Recipient(s)	Report Format
David Holland	Final.rpt

Certificate of Analysis

Sample ID: A4B1697-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #2 // 11965

Sample Date - Time: 02/19/14 - 16:10
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A402381	02/25/14	02/26/14	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A402381	02/25/14	02/26/14	
Surrogate: 1-Br-2-Nitrobenzene	EPA 504.1	110 %	Acceptable range: 70-130 %						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A402334	02/24/14	02/26/14	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A402334	02/24/14	02/26/14	
2,4-D	EPA 515.3	ND	10	ug/L	1	A402334	02/24/14	02/26/14	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A402334	02/24/14	02/26/14	
Dalapon	EPA 515.3	ND	10	ug/L	1	A402334	02/24/14	02/26/14	BS1.0, CV0.0
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A402334	02/24/14	02/26/14	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A402334	02/24/14	02/26/14	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A402334	02/24/14	02/26/14	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A402334	02/24/14	02/26/14	
Surrogate: DCPAA	EPA 515.3	87 %	Acceptable range: 70-130 %						
<u>Volatile Organics by GC-MS</u>									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A402178	02/24/14	02/25/14	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A402178	02/24/14	02/25/14	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A402178	02/24/14	02/25/14	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A402178	02/24/14	02/25/14	
Acetone	EPA 524.2	ND	10	ug/L	1	A402178	02/24/14	02/25/14	

Certificate of Analysis

Sample ID: A4B1697-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #2 // 11965

Sample Date - Time: 02/19/14 - 16:10
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics by GC-MS									
Benzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A402178	02/24/14	02/25/14	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A402178	02/24/14	02/25/14	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A402178	02/24/14	02/25/14	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A402178	02/24/14	02/25/14	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A402178	02/24/14	02/25/14	

Certificate of Analysis

Sample ID: A4B1697-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #2 // 11965

Sample Date - Time: 02/19/14 - 16:10
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	96 %							
Surrogate: Bromofluorobenzene	EPA 524.2	101 %							
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A402368	02/25/14	02/26/14	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A402368	02/25/14	02/26/14	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Bromacil	EPA 525.2	ND	10	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A402368	02/25/14	02/26/14	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A402368	02/25/14	02/26/14	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A402368	02/25/14	02/26/14	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A402368	02/25/14	02/26/14	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	108 %							
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A402279	02/23/14	02/25/14	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A402279	02/23/14	02/25/14	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A402279	02/23/14	02/25/14	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A402279	02/23/14	02/25/14	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A402279	02/23/14	02/25/14	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A402279	02/23/14	02/25/14	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A402279	02/23/14	02/25/14	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A402279	02/23/14	02/25/14	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A402275	02/22/14	02/22/14	
Surrogate: AMPA	EPA 547	101 %							
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A402387	02/25/14	02/26/14	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A402327	02/24/14	02/25/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A402381

Prepared: 02/25/2014

Prep Method: EPA 505

Analyst: GAK

Blank (A402381-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							02/26/14
Ethylene Dibromide (EDB)	ND	0.020	ug/L							02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.8			3.4		110	70-130			02/26/14

Blank Spike (A402381-BS1)

Dibromochloropropane (DBCP)	0.24	0.010	ug/L	0.20		118	70-130			02/26/14
Ethylene Dibromide (EDB)	0.23	0.020	ug/L	0.20		113	70-130			02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.6			3.4		104	70-130			02/26/14

Blank Spike Dup (A402381-BSD1)

Dibromochloropropane (DBCP)	0.25	0.010	ug/L	0.20		125	70-130	5	20	02/26/14
Ethylene Dibromide (EDB)	0.24	0.020	ug/L	0.20		122	70-130	7	20	02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.7			3.4		109	70-130			02/26/14

Matrix Spike (A402381-MS1), Source: A4B1641-01

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20	ND	111	65-135			02/26/14
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.20	ND	109	65-135			02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.3			3.4		99	70-130			02/26/14

Matrix Spike Dup (A402381-MSD1), Source: A4B1641-01

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20	ND	114	65-135	3	20	02/26/14
Ethylene Dibromide (EDB)	0.23	0.020	ug/L	0.20	ND	115	65-135	5	20	02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.4			3.4		101	70-130			02/26/14

EPA 515.3 - Quality Control

Batch: A402334

Prepared: 02/24/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank (A402334-BLK1)

2,4,5-T	ND	1.0	ug/L							02/25/14
2,4,5-TP (Silvex)	ND	1.0	ug/L							02/25/14
2,4-D	ND	10	ug/L							02/25/14
Bentazon	ND	2.0	ug/L							02/25/14
Dalapon	ND	10	ug/L							02/25/14
Dicamba	ND	1.5	ug/L							02/25/14
Dinoseb	ND	2.0	ug/L							02/25/14
Pentachlorophenol	ND	0.20	ug/L							02/25/14
Picloram	ND	1.0	ug/L							02/25/14
Surrogate: DCPAA	47			58		82	70-130			02/25/14

Blank Spike (A402334-BS1)

2,4,5-T	3.9	1.0	ug/L	4.0		98	70-130			02/25/14
2,4,5-TP (Silvex)	0.79	1.0	ug/L	0.80		99	70-130			02/25/14
2,4-D	0.41	10	ug/L	0.40		102	70-130			02/25/14
Bentazon	8.2	2.0	ug/L	8.0		102	70-130			02/25/14
Dalapon	4.4	10	ug/L	4.0		109	70-130			02/25/14

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A402334

Prepared: 02/24/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike (A402334-BS1)

Dicamba	6.1	1.5	ug/L	6.0		101	70-130			02/25/14	
Dinoseb	0.80	2.0	ug/L	0.80		100	70-130			02/25/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16		100	70-130			02/25/14	
Picloram	0.38	1.0	ug/L	0.40		94	70-130			02/25/14	
Surrogate: DCPAA	48			58		82	70-130			02/25/14	

Blank Spike Dup (A402334-BSD1)

2,4,5-T	4.0	1.0	ug/L	4.0		100	70-130	2	20	02/26/14	
2,4,5-TP (Silvex)	0.79	1.0	ug/L	0.80		99	70-130	0	20	02/26/14	
2,4-D	0.43	10	ug/L	0.40		107	70-130	5	20	02/26/14	
Bentazon	8.1	2.0	ug/L	8.0		102	70-130	0	20	02/26/14	
Dalapon	5.4	10	ug/L	4.0		135	70-130	21	20	02/26/14	BS High
Dicamba	6.1	1.5	ug/L	6.0		102	70-130	1	20	02/26/14	
Dinoseb	0.82	2.0	ug/L	0.80		103	70-130	3	20	02/26/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16		99	70-130	1	20	02/26/14	
Picloram	0.39	1.0	ug/L	0.40		98	70-130	5	20	02/26/14	
Surrogate: DCPAA	47			58		81	70-130			02/26/14	

Matrix Spike (A402334-MS1), Source: A4B1537-03

2,4,5-T	4.0	1.0	ug/L	4.0	ND	100	70-130			02/25/14	
2,4,5-TP (Silvex)	0.81	1.0	ug/L	0.80	ND	102	70-130			02/25/14	
2,4-D	0.42	10	ug/L	0.40	ND	105	70-130			02/25/14	
Bentazon	8.5	2.0	ug/L	8.0	ND	106	70-130			02/25/14	
Dalapon	5.8	10	ug/L	4.0	ND	145	70-130			02/25/14	MS1.1 High
Dicamba	6.3	1.5	ug/L	6.0	ND	105	70-130			02/25/14	
Dinoseb	0.80	2.0	ug/L	0.80	ND	100	70-130			02/25/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16	ND	100	70-130			02/25/14	
Picloram	0.39	1.0	ug/L	0.40	ND	98	70-130			02/25/14	
Surrogate: DCPAA	47			58		81	70-130			02/25/14	

Matrix Spike Dup (A402334-MSD1), Source: A4B1537-03

2,4,5-T	4.0	1.0	ug/L	4.0	ND	101	70-130	1	20	02/25/14	
2,4,5-TP (Silvex)	0.83	1.0	ug/L	0.80	ND	103	70-130	1	20	02/25/14	
2,4-D	0.43	10	ug/L	0.40	ND	108	70-130	2	20	02/25/14	
Bentazon	8.0	2.0	ug/L	8.0	ND	99	70-130	7	20	02/25/14	
Dalapon	4.9	10	ug/L	4.0	ND	123	70-130	17	20	02/25/14	
Dicamba	6.2	1.5	ug/L	6.0	ND	103	70-130	1	20	02/25/14	
Dinoseb	0.79	2.0	ug/L	0.80	ND	98	70-130	2	20	02/25/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16	ND	99	70-130	1	20	02/25/14	
Picloram	0.40	1.0	ug/L	0.40	ND	100	70-130	1	20	02/25/14	
Surrogate: DCPAA	48			58		83	70-130			02/25/14	

EPA 524.2 - Quality Control

Batch: A402178

Prepared: 02/24/2014

Prep Method: EPA 524.2

Analyst: JGB

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402178

Prepared: 02/24/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402178-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							02/24/14	
1,1,1-Trichloroethane	ND	0.50	ug/L							02/24/14	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							02/24/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							02/24/14	
1,1,2-Trichloroethane	ND	0.50	ug/L							02/24/14	
1,1-Dichloroethane	ND	0.50	ug/L							02/24/14	
1,1-Dichloroethene	ND	0.50	ug/L							02/24/14	
1,1-Dichloropropene	ND	0.50	ug/L							02/24/14	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							02/24/14	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							02/24/14	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							02/24/14	
1,2-Dichlorobenzene	ND	0.50	ug/L							02/24/14	
1,2-Dichloroethane	ND	0.50	ug/L							02/24/14	
1,2-Dichloropropane	ND	0.50	ug/L							02/24/14	
1,3,5-Trimethylbenzene	ND	0.50	ug/L							02/24/14	
1,3-Dichlorobenzene	ND	0.50	ug/L							02/24/14	
1,3-Dichloropropane	ND	0.50	ug/L							02/24/14	
1,4-Dichlorobenzene	ND	0.50	ug/L							02/24/14	
2,2-Dichloropropane	ND	0.50	ug/L							02/24/14	
2-Butanone	ND	5.0	ug/L							02/24/14	
2-Chlorotoluene	ND	0.50	ug/L							02/24/14	
2-Hexanone	ND	10	ug/L							02/24/14	
4-Chlorotoluene	ND	0.50	ug/L							02/24/14	
4-Methyl-2-pentanone	ND	5.0	ug/L							02/24/14	
Acetone	ND	10	ug/L							02/24/14	
Benzene	ND	0.50	ug/L							02/24/14	
Bromobenzene	ND	0.50	ug/L							02/24/14	
Bromochloromethane	ND	0.50	ug/L							02/24/14	
Bromodichloromethane	ND	0.50	ug/L							02/24/14	
Bromoform	ND	0.50	ug/L							02/24/14	
Bromomethane	ND	0.50	ug/L							02/24/14	
Carbon Tetrachloride	ND	0.50	ug/L							02/24/14	
Chlorobenzene	ND	0.50	ug/L							02/24/14	
Chloroethane	ND	0.50	ug/L							02/24/14	
Chloroform	ND	0.50	ug/L							02/24/14	
Chloromethane	ND	0.50	ug/L							02/24/14	
cis-1,2-Dichloroethene	ND	0.50	ug/L							02/24/14	
cis-1,3-Dichloropropene	ND	0.50	ug/L							02/24/14	
Dibromochloromethane	ND	0.50	ug/L							02/24/14	
Dibromomethane	ND	0.50	ug/L							02/24/14	
Dichlorodifluoromethane	ND	0.50	ug/L							02/24/14	
Dichloromethane	ND	0.50	ug/L							02/24/14	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							02/24/14	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							02/24/14	
Ethylbenzene	ND	0.50	ug/L							02/24/14	
Hexachlorobutadiene	ND	0.50	ug/L							02/24/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402178

Prepared: 02/24/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402178-BLK1)

Isopropylbenzene	ND	0.50	ug/L							02/24/14	
m,p-Xylenes	ND	0.50	ug/L							02/24/14	
Methyl-t-butyl ether	ND	0.50	ug/L							02/24/14	
Naphthalene	ND	0.50	ug/L							02/24/14	
n-Butylbenzene	ND	0.50	ug/L							02/24/14	
n-Propylbenzene	ND	0.50	ug/L							02/24/14	
o-Xylene	ND	0.50	ug/L							02/24/14	
p-Isopropyltoluene	ND	0.50	ug/L							02/24/14	
sec-Butylbenzene	ND	0.50	ug/L							02/24/14	
Styrene	ND	0.50	ug/L							02/24/14	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							02/24/14	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							02/24/14	
tert-Butylbenzene	ND	0.50	ug/L							02/24/14	
Tetrachloroethene (PCE)	ND	0.50	ug/L							02/24/14	
Toluene	ND	0.50	ug/L							02/24/14	
trans-1,2-Dichloroethene	ND	0.50	ug/L							02/24/14	
trans-1,3-Dichloropropene	ND	0.50	ug/L							02/24/14	
Trichloroethene (TCE)	ND	0.50	ug/L							02/24/14	
Trichlorofluoromethane	ND	5.0	ug/L							02/24/14	
Vinyl Chloride	ND	0.50	ug/L							02/24/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.5			5.0		109	70-130			02/24/14	
Surrogate: Bromofluorobenzene	55			50		111	70-130			02/24/14	

Blank Spike (A402178-BS1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		102	70-130			02/24/14	
1,1,1-Trichloroethane	10	0.50	ug/L	10		102	70-130			02/24/14	
1,1,2,2-Tetrachloroethane	9.9	0.50	ug/L	10		99	70-130			02/24/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	10	10	ug/L	10		102	70-130			02/24/14	
1,1,2-Trichloroethane	10	0.50	ug/L	10		102	70-130			02/24/14	
1,1-Dichloroethane	10	0.50	ug/L	10		104	70-130			02/24/14	
1,1-Dichloroethene	10	0.50	ug/L	10		102	70-130			02/24/14	
1,1-Dichloropropene	9.6	0.50	ug/L	10		96	70-130			02/24/14	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		101	70-130			02/24/14	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		105	70-130			02/24/14	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		105	70-130			02/24/14	
1,2-Dichlorobenzene	9.9	0.50	ug/L	10		99	70-130			02/24/14	
1,2-Dichloroethane	10	0.50	ug/L	10		102	70-130			02/24/14	
1,2-Dichloropropane	10	0.50	ug/L	10		103	70-130			02/24/14	
1,3,5-Trimethylbenzene	10	0.50	ug/L	10		104	70-130			02/24/14	
1,3-Dichlorobenzene	10	0.50	ug/L	10		104	70-130			02/24/14	
1,3-Dichloropropane	10	0.50	ug/L	10		103	70-130			02/24/14	
1,4-Dichlorobenzene	10	0.50	ug/L	10		104	70-130			02/24/14	
2,2-Dichloropropane	10	0.50	ug/L	10		104	70-130			02/24/14	
2-Butanone	10	5.0	ug/L	10		104	70-130			02/24/14	
2-Chlorotoluene	10	0.50	ug/L	10		104	70-130			02/24/14	
2-Hexanone	10	10	ug/L	10		104	70-130			02/24/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402178

Prepared: 02/24/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A402178-BS1)

4-Chlorotoluene	10	0.50	ug/L	10		104	70-130			02/24/14	
4-Methyl-2-pentanone	10	5.0	ug/L	10		104	70-130			02/24/14	
Acetone	9.8	10	ug/L	10		98	70-130			02/24/14	
Benzene	9.9	0.50	ug/L	10		99	70-130			02/24/14	
Bromobenzene	10	0.50	ug/L	10		102	70-130			02/24/14	
Bromochloromethane	10	0.50	ug/L	10		103	70-130			02/24/14	
Bromodichloromethane	9.7	0.50	ug/L	10		97	70-130			02/24/14	
Bromoform	10	0.50	ug/L	10		102	70-130			02/24/14	
Bromomethane	12	0.50	ug/L	10		118	70-130			02/24/14	
Carbon Tetrachloride	9.5	0.50	ug/L	10		95	70-130			02/24/14	
Chlorobenzene	10	0.50	ug/L	10		104	70-130			02/24/14	
Chloroethane	9.9	0.50	ug/L	10		99	70-130			02/24/14	
Chloroform	10	0.50	ug/L	10		101	70-130			02/24/14	
Chloromethane	10	0.50	ug/L	10		104	70-130			02/24/14	
cis-1,2-Dichloroethene	10	0.50	ug/L	10		105	70-130			02/24/14	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		106	70-130			02/24/14	
Dibromochloromethane	9.7	0.50	ug/L	10		97	70-130			02/24/14	
Dibromomethane	9.7	0.50	ug/L	10		97	70-130			02/24/14	
Dichlorodifluoromethane	9.8	0.50	ug/L	10		98	70-130			02/24/14	
Dichloromethane	10	0.50	ug/L	10		104	70-130			02/24/14	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		106	70-130			02/24/14	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		108	70-130			02/24/14	
Ethylbenzene	10	0.50	ug/L	10		103	70-130			02/24/14	
Hexachlorobutadiene	10	0.50	ug/L	10		100	70-130			02/24/14	
Isopropylbenzene	10	0.50	ug/L	10		104	70-130			02/24/14	
m,p-Xylenes	19	0.50	ug/L	20		94	70-130			02/24/14	
Methyl-t-butyl ether	21	0.50	ug/L	20		104	70-130			02/24/14	
Naphthalene	11	0.50	ug/L	10		106	70-130			02/24/14	
n-Butylbenzene	10	0.50	ug/L	10		100	70-130			02/24/14	
n-Propylbenzene	10	0.50	ug/L	10		103	70-130			02/24/14	
o-Xylene	10	0.50	ug/L	10		105	70-130			02/24/14	
p-Isopropyltoluene	10	0.50	ug/L	10		104	70-130			02/24/14	
sec-Butylbenzene	10	0.50	ug/L	10		102	70-130			02/24/14	
Styrene	10	0.50	ug/L	10		104	70-130			02/24/14	
tert-Amyl Methyl Ether (TAME)	10	3.0	ug/L	10		105	70-130			02/24/14	
tert-Butyl alcohol (TBA)	12	2.0	ug/L	10		122	70-130			02/24/14	
tert-Butylbenzene	10	0.50	ug/L	10		103	70-130			02/24/14	
Tetrachloroethene (PCE)	10	0.50	ug/L	10		103	70-130			02/24/14	
Toluene	10	0.50	ug/L	10		104	70-130			02/24/14	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		104	70-130			02/24/14	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		106	70-130			02/24/14	
Trichloroethene (TCE)	10	0.50	ug/L	10		105	70-130			02/24/14	
Trichlorofluoromethane	10	5.0	ug/L	10		102	70-130			02/24/14	
Vinyl Chloride	10	0.50	ug/L	10		103	70-130			02/24/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.9			5.0		99	70-130			02/24/14	
Surrogate: Bromofluorobenzene	49			50		99	70-130			02/24/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402178

Prepared: 02/24/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402178-BSD1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		100	70-130	1	30	02/24/14	
1,1,1-Trichloroethane	10	0.50	ug/L	10		100	70-130	2	30	02/24/14	
1,1,2,2-Tetrachloroethane	9.9	0.50	ug/L	10		99	70-130	0	30	02/24/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.9	10	ug/L	10		99	70-130	3	30	02/24/14	
1,1,2-Trichloroethane	10	0.50	ug/L	10		101	70-130	1	30	02/24/14	
1,1-Dichloroethane	10	0.50	ug/L	10		101	70-130	2	30	02/24/14	
1,1-Dichloroethene	9.9	0.50	ug/L	10		99	70-130	3	30	02/24/14	
1,1-Dichloropropene	10	0.50	ug/L	10		105	70-130	9	30	02/24/14	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		101	70-130	0	30	02/24/14	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		105	70-130	0	30	02/24/14	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		103	70-130	2	30	02/24/14	
1,2-Dichlorobenzene	10	0.50	ug/L	10		102	70-130	3	30	02/24/14	
1,2-Dichloroethane	9.4	0.50	ug/L	10		94	70-130	8	30	02/24/14	
1,2-Dichloropropane	10	0.50	ug/L	10		101	70-130	2	30	02/24/14	
1,3,5-Trimethylbenzene	10	0.50	ug/L	10		103	70-130	1	30	02/24/14	
1,3-Dichlorobenzene	10	0.50	ug/L	10		101	70-130	4	30	02/24/14	
1,3-Dichloropropane	10	0.50	ug/L	10		102	70-130	1	30	02/24/14	
1,4-Dichlorobenzene	10	0.50	ug/L	10		103	70-130	1	30	02/24/14	
2,2-Dichloropropane	10	0.50	ug/L	10		100	70-130	4	30	02/24/14	
2-Butanone	10	5.0	ug/L	10		104	70-130	0	30	02/24/14	
2-Chlorotoluene	10	0.50	ug/L	10		102	70-130	2	30	02/24/14	
2-Hexanone	10	10	ug/L	10		105	70-130	0	30	02/24/14	
4-Chlorotoluene	10	0.50	ug/L	10		103	70-130	1	30	02/24/14	
4-Methyl-2-pentanone	10	5.0	ug/L	10		103	70-130	1	30	02/24/14	
Acetone	9.6	10	ug/L	10		96	70-130	3	30	02/24/14	
Benzene	8.5	0.50	ug/L	10		85	70-130	15	30	02/24/14	
Bromobenzene	10	0.50	ug/L	10		102	70-130	1	30	02/24/14	
Bromochloromethane	10	0.50	ug/L	10		103	70-130	0	30	02/24/14	
Bromodichloromethane	9.6	0.50	ug/L	10		96	70-130	1	30	02/24/14	
Bromoform	10	0.50	ug/L	10		100	70-130	1	30	02/24/14	
Bromomethane	11	0.50	ug/L	10		111	70-130	6	30	02/24/14	
Carbon Tetrachloride	10	0.50	ug/L	10		104	70-130	8	30	02/24/14	
Chlorobenzene	10	0.50	ug/L	10		100	70-130	3	30	02/24/14	
Chloroethane	9.6	0.50	ug/L	10		96	70-130	3	30	02/24/14	
Chloroform	10	0.50	ug/L	10		100	70-130	0	30	02/24/14	
Chloromethane	10	0.50	ug/L	10		100	70-130	3	30	02/24/14	
cis-1,2-Dichloroethene	10	0.50	ug/L	10		103	70-130	2	30	02/24/14	
cis-1,3-Dichloropropene	10	0.50	ug/L	10		104	70-130	2	30	02/24/14	
Dibromochloromethane	9.7	0.50	ug/L	10		97	70-130	1	30	02/24/14	
Dibromomethane	11	0.50	ug/L	10		108	70-130	11	30	02/24/14	
Dichlorodifluoromethane	10	0.50	ug/L	10		104	70-130	6	30	02/24/14	
Dichloromethane	10	0.50	ug/L	10		103	70-130	1	30	02/24/14	
Di-isopropyl ether (DIPE)	10	3.0	ug/L	10		104	70-130	2	30	02/24/14	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		103	70-130	5	30	02/24/14	
Ethylbenzene	10	0.50	ug/L	10		101	70-130	2	30	02/24/14	
Hexachlorobutadiene	10	0.50	ug/L	10		100	70-130	0	30	02/24/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402178

Prepared: 02/24/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402178-BSD1)

Isopropylbenzene	10	0.50	ug/L	10		101	70-130	2	30	02/24/14	
m,p-Xylenes	19	0.50	ug/L	20		93	70-130	1	30	02/24/14	
Methyl-t-butyl ether	20	0.50	ug/L	20		102	70-130	2	30	02/24/14	
Naphthalene	11	0.50	ug/L	10		106	70-130	0	30	02/24/14	
n-Butylbenzene	10	0.50	ug/L	10		100	70-130	1	30	02/24/14	
n-Propylbenzene	10	0.50	ug/L	10		100	70-130	3	30	02/24/14	
o-Xylene	10	0.50	ug/L	10		100	70-130	4	30	02/24/14	
p-Isopropyltoluene	10	0.50	ug/L	10		103	70-130	1	30	02/24/14	
sec-Butylbenzene	10	0.50	ug/L	10		101	70-130	1	30	02/24/14	
Styrene	10	0.50	ug/L	10		101	70-130	4	30	02/24/14	
tert-Amyl Methyl Ether (TAME)	9.9	3.0	ug/L	10		99	70-130	6	30	02/24/14	
tert-Butyl alcohol (TBA)	11	2.0	ug/L	10		113	70-130	7	30	02/24/14	
tert-Butylbenzene	10	0.50	ug/L	10		103	70-130	1	30	02/24/14	
Tetrachloroethene (PCE)	9.9	0.50	ug/L	10		99	70-130	4	30	02/24/14	
Toluene	10	0.50	ug/L	10		102	70-130	2	30	02/24/14	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		102	70-130	2	30	02/24/14	
trans-1,3-Dichloropropene	10	0.50	ug/L	10		104	70-130	2	30	02/24/14	
Trichloroethene (TCE)	9.8	0.50	ug/L	10		98	70-130	7	30	02/24/14	
Trichlorofluoromethane	9.9	5.0	ug/L	10		99	70-130	3	30	02/24/14	
Vinyl Chloride	10	0.50	ug/L	10		104	70-130	1	30	02/24/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		100	70-130			02/24/14	
Surrogate: Bromofluorobenzene	50			50		99	70-130			02/24/14	

EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank (A402368-BLK1)

Alachlor	ND	1.0	ug/L							02/26/14	
Atrazine	ND	0.50	ug/L							02/26/14	
Benzo(a)pyrene	ND	0.10	ug/L							02/26/14	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							02/26/14	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							02/26/14	
Bromacil	ND	10	ug/L							02/26/14	
Butachlor	ND	0.38	ug/L							02/26/14	
Diazinon	ND	0.25	ug/L							02/26/14	
Dimethoate	ND	10	ug/L							02/26/14	
Metolachlor	ND	0.50	ug/L							02/26/14	
Metribuzin	ND	0.50	ug/L							02/26/14	
Molinate	ND	2.0	ug/L							02/26/14	
Propachlor	ND	0.50	ug/L							02/26/14	
Simazine	ND	1.0	ug/L							02/26/14	
Thiobencarb	ND	1.0	ug/L							02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	6.0			5.0		119	70-130			02/26/14	

Blank Spike (A402368-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A402368-BS1)

Alachlor	0.60	1.0	ug/L	0.50		119	70-130			02/26/14	
Atrazine	0.55	0.50	ug/L	0.50		111	70-130			02/26/14	
Benzo(a)pyrene	0.12	0.10	ug/L	0.10		119	70-130			02/26/14	
Bis(2-ethylhexyl) adipate	3.6	3.0	ug/L	3.0		120	70-130			02/26/14	
Bis(2-ethylhexyl) phthalate	4.3	3.0	ug/L	3.0		142	70-130			02/26/14	BS High
Bromacil	2.6	10	ug/L	2.0		132	70-130			02/26/14	BS High
Butachlor	1.4	0.38	ug/L	1.2		110	70-130			02/26/14	
Diazinon	0.038	0.25	ug/L	0.050		76	70-130			02/26/14	
Dimethoate	0.35	10	ug/L	0.50		71	70-130			02/26/14	
Metolachlor	3.3	0.50	ug/L	2.5		131	70-130			02/26/14	BS High
Metribuzin	3.0	0.50	ug/L	2.5		120	70-130			02/26/14	
Molinate	2.9	2.0	ug/L	2.5		117	70-130			02/26/14	
Propachlor	2.9	0.50	ug/L	2.5		117	70-130			02/26/14	
Simazine	0.40	1.0	ug/L	0.35		116	70-130			02/26/14	
Thiobencarb	0.59	1.0	ug/L	0.50		119	70-130			02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.5			5.0		109	70-130			02/26/14	

Blank Spike Dup (A402368-BSD1)

Alachlor	0.58	1.0	ug/L	0.49		118	70-130	3	30	02/26/14	
Atrazine	0.53	0.50	ug/L	0.49		107	70-130	5	30	02/26/14	
Benzo(a)pyrene	0.11	0.10	ug/L	0.098		116	70-130	4	30	02/26/14	
Bis(2-ethylhexyl) adipate	3.6	3.0	ug/L	2.9		122	70-130	0	30	02/26/14	
Bis(2-ethylhexyl) phthalate	4.1	3.0	ug/L	2.9		140	70-130	3	30	02/26/14	BS High
Bromacil	2.6	10	ug/L	2.0		132	70-130	2	30	02/26/14	BS High
Butachlor	1.4	0.38	ug/L	1.2		111	70-130	1	30	02/26/14	
Diazinon	0.040	0.25	ug/L	0.049		82	70-130	6	30	02/26/14	
Dimethoate	0.34	10	ug/L	0.49		70	70-130	3	30	02/26/14	
Metolachlor	3.2	0.50	ug/L	2.5		132	70-130	1	30	02/26/14	BS High
Metribuzin	3.0	0.50	ug/L	2.5		121	70-130	1	30	02/26/14	
Molinate	2.7	2.0	ug/L	2.5		109	70-130	9	30	02/26/14	
Propachlor	2.7	0.50	ug/L	2.5		109	70-130	8	30	02/26/14	
Simazine	0.37	1.0	ug/L	0.34		108	70-130	9	30	02/26/14	
Thiobencarb	0.57	1.0	ug/L	0.49		116	70-130	3	30	02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			4.9		101	70-130			02/26/14	

Matrix Spike (A402368-MS1), Source: A4B1490-02

Alachlor	0.54	1.0	ug/L	0.49	ND	110	70-130			02/26/14	
Atrazine	0.52	0.50	ug/L	0.49	ND	105	70-130			02/26/14	
Benzo(a)pyrene	0.13	0.10	ug/L	0.099	ND	134	70-130			02/26/14	MS1.0 High
Bis(2-ethylhexyl) adipate	3.7	3.0	ug/L	3.0	ND	124	70-130			02/26/14	
Bis(2-ethylhexyl) phthalate	4.4	3.0	ug/L	3.0	ND	129	70-130			02/26/14	
Bromacil	2.5	10	ug/L	2.0	ND	126	70-130			02/26/14	
Butachlor	1.3	0.38	ug/L	1.2	ND	106	70-130			02/26/14	
Diazinon	0.056	0.25	ug/L	0.049	ND	114	70-130			02/26/14	
Dimethoate	0.32	10	ug/L	0.49	ND	64	70-130			02/26/14	MS1.0 Low
Metolachlor	2.9	0.50	ug/L	2.5	ND	119	70-130			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Matrix Spike (A402368-MS1), Source: A4B1490-02

Metribuzin	2.6	0.50	ug/L	2.5	ND	104	70-130			02/26/14	
Molinate	2.7	2.0	ug/L	2.5	ND	110	70-130			02/26/14	
Propachlor	2.6	0.50	ug/L	2.5	ND	107	70-130			02/26/14	
Simazine	0.38	1.0	ug/L	0.35	ND	109	70-130			02/26/14	
Thiobencarb	0.57	1.0	ug/L	0.49	ND	116	70-130			02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.2			4.9		106	70-130			02/26/14	

EPA 531.1 - Quality Control

Batch: A402279

Prepared: 02/23/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank (A402279-BLK1)

3-Hydroxycarbofuran	ND	3.0	ug/L							02/25/14	
Aldicarb	ND	3.0	ug/L							02/25/14	
Aldicarb Sulfone	ND	2.0	ug/L							02/25/14	
Aldicarb Sulfoxide	ND	3.0	ug/L							02/25/14	
Carbaryl	ND	5.0	ug/L							02/25/14	
Carbofuran	ND	5.0	ug/L							02/25/14	
Methomyl	ND	2.0	ug/L							02/25/14	
Oxamyl	ND	20	ug/L							02/25/14	

Blank Spike (A402279-BS1)

3-Hydroxycarbofuran	3.6	3.0	ug/L	4.0		89	80-120			02/25/14	
Aldicarb	4.5	3.0	ug/L	4.0		114	80-120			02/25/14	
Aldicarb Sulfone	4.2	2.0	ug/L	4.0		104	80-120			02/25/14	
Aldicarb Sulfoxide	4.1	3.0	ug/L	4.0		103	80-120			02/25/14	
Carbaryl	4.2	5.0	ug/L	4.0		104	80-120			02/25/14	
Carbofuran	4.2	5.0	ug/L	4.0		104	80-120			02/25/14	
Methomyl	4.1	2.0	ug/L	4.0		103	80-120			02/25/14	
Oxamyl	4.1	20	ug/L	4.0		103	80-120			02/25/14	

Blank Spike Dup (A402279-BSD1)

3-Hydroxycarbofuran	4.0	3.0	ug/L	4.0		99	80-120	11	20	02/25/14	
Aldicarb	4.3	3.0	ug/L	4.0		107	80-120	6	20	02/25/14	
Aldicarb Sulfone	4.1	2.0	ug/L	4.0		103	80-120	1	20	02/25/14	
Aldicarb Sulfoxide	4.0	3.0	ug/L	4.0		101	80-120	2	20	02/25/14	
Carbaryl	4.0	5.0	ug/L	4.0		101	80-120	3	20	02/25/14	
Carbofuran	4.0	5.0	ug/L	4.0		99	80-120	5	20	02/25/14	
Methomyl	4.0	2.0	ug/L	4.0		101	80-120	2	20	02/25/14	
Oxamyl	4.0	20	ug/L	4.0		101	80-120	2	20	02/25/14	

Matrix Spike (A402279-MS1), Source: A4B1162-01

3-Hydroxycarbofuran	4.3	3.0	ug/L	4.0	ND	103	65-135			02/25/14	
Aldicarb	4.5	3.0	ug/L	4.0	ND	112	65-135			02/25/14	
Aldicarb Sulfone	4.4	2.0	ug/L	4.0	ND	109	65-135			02/25/14	
Aldicarb Sulfoxide	4.4	3.0	ug/L	4.0	ND	109	65-135			02/25/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A402279

Prepared: 02/23/2014

Prep Method: EPA 531.1

Analyst: AAR

Matrix Spike (A402279-MS1), Source: A4B1162-01

Carbaryl	4.4	5.0	ug/L	4.0	ND	109	65-135			02/25/14	
Carbofuran	4.2	5.0	ug/L	4.0	ND	106	65-135			02/25/14	
Methomyl	4.3	2.0	ug/L	4.0	ND	108	65-135			02/25/14	
Oxamyl	4.2	20	ug/L	4.0	ND	106	65-135			02/25/14	

EPA 547 - Quality Control

Batch: A402275

Prepared: 02/22/2014

Prep Method: EPA 547

Analyst: RJB

Blank (A402275-BLK1)

Glyphosate	ND	25	ug/L							02/22/14	
Surrogate: AMPA	100			100		101	70-130			02/22/14	

Blank Spike (A402275-BS1)

Glyphosate	110	25	ug/L	100		105	70-130			02/22/14	
Surrogate: AMPA	110			100		106	70-130			02/22/14	

Blank Spike Dup (A402275-BSD1)

Glyphosate	110	25	ug/L	100		110	70-130	5	30	02/22/14	
Surrogate: AMPA	110			100		107	70-130			02/22/14	

Matrix Spike (A402275-MS1), Source: A4B1537-01

Glyphosate	110	25	ug/L	100	ND	106	70-130			02/22/14	
Surrogate: AMPA	110			100		112	70-130			02/22/14	

Matrix Spike Dup (A402275-MSD1), Source: A4B1537-01

Glyphosate	110	25	ug/L	100	ND	108	70-130	2	30	02/22/14	
Surrogate: AMPA	100			100		100	70-130			02/22/14	

EPA 548.1 - Quality Control

Batch: A402387

Prepared: 02/25/2014

Prep Method: EPA 548.1

Analyst: KHH

Blank (A402387-BLK1)

Endothall	ND	45	ug/L							02/26/14	
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Blank Spike (A402387-BS1)

Endothall	17	45	ug/L	20		83	60-111			02/26/14	
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Blank Spike Dup (A402387-BSD1)

Endothall	15	45	ug/L	20		73	60-111	13	46	02/26/14	
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Matrix Spike (A402387-MS1), Source: A4B1489-04

Endothall	4.3	45	ug/L	20	ND	22	10-122			02/26/14	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 549.2 - Quality Control

Batch: A402327

Prepared: 02/24/2014

Prep Method: EPA 549.2

Analyst: PYA

Blank (A402327-BLK1)

Diquat ND 4.0 ug/L 02/25/14

Blank Spike (A402327-BS1)

Diquat 3.1 4.0 ug/L 4.0 76 70-130 02/25/14

Blank Spike Dup (A402327-BSD1)

Diquat 3.2 4.0 ug/L 4.0 80 70-130 4 30 02/25/14

Matrix Spike (A402327-MS1), Source: A4B1666-05

Diquat 2.1 4.0 ug/L 4.0 ND 52 70-130 02/25/14 MS1.0 **Low**

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of Oregon - NELAP	4021	State of Washington	C997
State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA

BSK is not accredited under the NELAC program for the following parameters:

A4B1697



Monterey Bay Analytical

Monte6227



02212014

Turnaround: Standard
Due Date: 2/28/2014



TEMP: 1.2

* Required Fields

Client/Company Name *: Monterey Bay Analytical		Report Attention *: David Holland		Phone * #: (831)-357-6227 FAX * #: (831)-641-0734	
Address * 4 Justin Ct. Monterey CA 93940				Carbon Copies: CDHS <input type="checkbox"/> Fresno Co <input type="checkbox"/> EPA <input type="checkbox"/> Merced Co <input type="checkbox"/> Tulare Co <input type="checkbox"/> Other:	
Project Information: Cal Am			PO # Quote # 464		ANALYSIS REQUESTED EPA 504 EPA 515 EPA 524 plus oxygenates EPA 525 EPA 531 EPA 547 EPA 548 EPA 549
How would you like your completed results sent? <input checked="" type="checkbox"/> E-Mail <input type="checkbox"/> Fax <input type="checkbox"/> EDD <input type="checkbox"/> Mail Only			Regulatory Compliance Electronic Data Transfer: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>		
Sampler Name Printed / Signature Nathan Reynolds		QC Request <input checked="" type="checkbox"/> STD <input type="checkbox"/> Level II		Result Request ** Surcharge <input type="checkbox"/> STD <input checked="" type="checkbox"/> 5 Day** <input type="checkbox"/> 2 Day** <input type="checkbox"/> 1 Day**	
Matrix Types: RSW = Raw Surface Water CFW = Chlorinated Finished Water CWW = Chlorinated Waste Water BW = Bottled Water RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid					

Sample #	# Bottles	Sampled		Sample Description / Location *	Matrix *	Comments / Station Code											
		Date	Time														
		2/19	16:10	CX-BIWQ Zone #2	RGW	11965											
				5 day TAT please ✖													
				Conductivity 23,705 uS/cm													

Relinquished by: (Signature and Printed Name) David Holland		Company MBAS		Date 2/20	Time 1200	Received by: (Signature and Print Name) 		Company	
Relinquished by: (Signature and Printed Name)		Company		Date	Time	Received by: (Signature and Print Name)		Company	
Received for Lab by: (Signature and Printed Name) John Herr				Date 2/20/14	Time 10:30	Payment Received at Delivery:			
				Date:	Amount:	Check/Cash/Card	PIA #	Init.	

Shipping Method: CAO UPS GSO WALK-IN SJVC FED EX OTHER
 Cooling Method: WET BLUE NONE
 Packing Material: BW

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service/re-billing charges and interest calculated at 1 1/2% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collections, including attorneys' fees incurred prior to or in litigation whether concluded by judgement, settlement, compromise or otherwise. The person signing for the client/company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantities, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 3:00 pm will begin the next business day.



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$ <u>1.2</u>	<u>Yes</u> No NA	Were correct containers and preservatives received for the tests requested?	<u>Yes</u> No NA		
	If samples were taken today, is there evidence that chilling has begun? <u>not</u>	Yes No <u>NA</u>	Were there bubbles in the VOA vials? (Volatiles Only)	Yes No <u>NA</u>		
	Did all bottles arrive unbroken and intact?	<u>Yes</u> No	Was a sufficient amount of sample received?	<u>Yes</u> No		
	Did all bottle labels agree with COC?	<u>Yes</u> No	Do samples have a hold time <72 hours?	Yes <u>No</u>		
	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No <u>NA</u>	Was PM notified of discrepancies? PM: _____ By/Time: _____	Yes No <u>NA</u>		
	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)		Checks	Passed?	<u>1</u>	
Bottles Received <small>"I" means preservation/chlorine checks are either N/A or are performed in the lab</small>	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—			
	None (P) <small>White Cap</small>	—	—			
	Cr6 Buffer (P) <small>Blue Cap</small>	pH 9-9.5	Y N			
	HNO_3 (P) <small>Red Cap</small>	—	—			
	H_2SO_4 (P) <small>Yellow Cap</small>	pH ≤ 2	Y N			
	NaOH (P) <small>Green Cap</small>	Cl, pH ≥ 12	Y N	JLH		
	NaOH + ZnAc (P)	pH ≥ 9	Y N	2/21/14		
	Dissolved Oxygen 300ml (g)	—	—			
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—			
	H_2SO_4 (AG) <small>Yellow Label</small> O&G, Diesel	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—	1C		
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) <small>Blue Label</small> 547, 515, 525, 548	—	—	2A, 2C		
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) <small>Blue Label</small> THMs 524.2 or 524.3	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) <small>Blue Label</small> 504, 505	—	—	4V		
	$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) <small>Orange Label</small> 531	pH = 3	<u>Y</u> N	1V		
	NH_4Cl (AG) <small>Purple Label</small> 552	—	—			
	EDA (AG) <small>Brown Label</small> DBPs	—	—			
	Ascorbic + Maleic (AG) <small>Lt Green Label</small> 524.3	—	—			
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—	3V		
	Buffer pH 4 (CG)	—	—			
None (CG)	—	—				
H_3PO_4 (CG) <small>Salmon Label</small>	—	—				
Other:						
Asbestos 1Liter Plastic w/ Foil	—	—				
Low Level Hg / Metals Double Baggie	—	—				
Bottled Water	—	—				
Clear Glass Jar: 250 / 500 / 1 Liter	—	—				
Soil Tube Brass / Steel / Plastic	—	—				
Tedlar Bag / Plastic Bag	—	—				
Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials
	S P			S P		
	S P			S P		
Comments						

Labeled by: NR @ 1457

Labels checked by: G-89 @ 1457

Ceres Analytical Laboratory, Inc.
4919 Windplay Dr., Suite 1
El Dorado Hills, CA 95762

February 24, 2014

Ceres ID: 10263

Monterey Bay Analytical
Mr. David Holland
4 Justin Court, Ste. D
Monterey, CA 93940

Mr. Holland,

Enclosed please find the results for one aqueous sample received on February 21, 2014. This sample was analyzed for 2,3,7,8-TCDD by EPA 1613. Rush 5 day turn-around time was provided for this work.

This work was authorized under M.B.A.'s Project # 11965.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

The Sample Tracking Section includes all external and internal chain of custodies, laboratory bench sheets, and any special instructions received.

If you have any questions regarding this report, please feel free to contact me at (888)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

<u>Ceres Sample ID:</u>	<u>Sample ID</u>	<u>Date Received</u>	<u>Collection Date & Time</u>
10263-001	CX-B1WQ Z#2 (274-284 ft bags)	2/21/2014	2/19/2014 16:10

Section II: Data Summary

Sample ID: Method Blank								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-MB001	Date Received:	NA
Project:	11850		Sample Size:	1.000 L	QC Batch #:	1156	Date Extracted:	21-Feb-14
Date Collected:	NA				ZB-5 MS Analysis Date:	22-Feb-14		
Time Collected:	NA							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	3.66			<u>IS</u> ¹³ C-2,3,7,8-TCDD	110	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	119	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JMH			Reviewed by:	BS			

Sample ID: Ongoing Precision and Recovery								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-OPR001	Date Received:	NA
Project:	11850		Sample Size:	1.000 L	QC Batch #:	1156	Date Extracted:	21-Feb-14
Date Collected:	NA				ZB-5 MS Analysis Date:	22-Feb-14		
Time Collected:	NA							
Analyte	Conc. (ng/ml)	Limits^a	Qualifiers		Labeled Standards	Conc.	Limits^a	Qualifiers
2,3,7,8-TCDD	9.88	7.3-14.6			IS ¹³ C-2,3,7,8-TCDD	98.3	25-141	
					CRS ³⁷ Cl ₄ -2,3,7,8-TCDD	10.1	3.7-15.8	
					<i>a. Method acceptance criteria .</i>			
Analyst: JMH				Reviewed by: BS				

Sample ID: CX-B1WQ Zone #2 (274-284 ft bags)								
Client Data			Sample Data		Laboratory Data			
Name: Monterey Bay Analytical			Matrix: Aqueous		Lab Sample ID: 10263-001		Date Received: 21-Feb-14	
Project: 11850			Sample Size: 1.049 L		QC Batch #: 1156		Date Extracted: 21-Feb-14	
Date Collected: 19-Feb-14					ZB-5 MS Analysis Date: 22-Feb-14			
Time Collected: 16:10								
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	2.47			<u>IS</u> ¹³ C-2,3,7,8-TCDD	104	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	110	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst: JMH				Reviewed by: BS				

Section VI: Sample Tracking

Ceres Analytical Laboratory, Inc.

Chain of Custody

Ceres Use Only

4919 Windplay Dr. Suite 1
 El Dorado Hills, CA 95762
 Tel: (916)932-5011

Please Print in Pen

Ceres Project ID: _____
 Temperature: _____ °C

Reports and invoices will be delivered by email in .pdf format

Client Information	Invoice Information (if different from Client Info)	Project Information
Company Name: _____ Monterey Bay Analytical Contact Name: _____ David Holland Address: 4 Justin Court Ste D Monterey CA 93940 Ph: 831-375-6227 Email: montereybayanalytical@usa.net	Company Name: _____ Same Contact Name: _____ Address: _____ Ph: _____ Fx: _____ Email: _____	Ceres Quote #: _____ P.O. # _____ Project ID: _____ TAT (business days) _____ Std 15 days; Rush TAT available please call

Matrix abbreviations:

A: Aqueous S: Soil AS: Ash DW: Drinking Water
 E: Effluent SD: Sediment C: Clay SO: Solid
 I: Influent SL: Sludge CS: Clay Slurry O: Other (please comment)

	Sample ID	Sample Collection			Matrix	# of containers	EPA 1613	EPA 8290	NCASI 551	EPA 8280	EPA 613	Other	TEF
		Date	Time	Matrix									<input type="checkbox"/> 1998 WHO <input type="checkbox"/> 2005 WHO <input type="checkbox"/> Other
1	CX-B1WQ Zone #2 (274-284 ft bags)	2/19/2014	16:10	Aq	2	X							11965
2													(2,3,7,8 TCDD only)
3													5 day Rush Please
4													
5													
6													
7													
8													
9													
10													
11													
12													

Samples will be disposed of 45 days after submission of report, unless other provisions have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (signature and Printed Name)	Date	Time
David Holland	2/20/2014	12:00	J. M. Hedin	2/21/14	09:45
	2/21/14	09:45		2/21/14	

Client understands that all terms described in the proposals, quotations, and/or the general terms and conditions of Ceres Analytical Laboratory will be followed.
 Ceres Analytical Laboratory reserves the right to terminate its service or withhold delivery of reports, if in Ceres' discretion the terms of the project have been broken.

Sample Receipt Check List

Ceres ID: 10263	Date/Time: 2/21/14 9:40am
Client Project ID: 2/21/14 A011965	Received Temperature: 64 Acceptable: <input checked="" type="radio"/> Y <input type="radio"/> N
Chain of Custody Relinquished by signed?	<input checked="" type="radio"/> Y <input type="radio"/> N
Custody Seals? Present?	<input type="radio"/> Y <input type="radio"/> N
Intact?	<input type="radio"/> Y <input type="radio"/> N
NA:	<input checked="" type="radio"/> NA
Unlabeled / Illegible Samples	<input type="radio"/> Y <input checked="" type="radio"/> N
Proper Containers:	<input checked="" type="radio"/> Y <input type="radio"/> N
Preservation Acceptable (Chemical or Temperature)?	<input type="radio"/> Y <input type="radio"/> N
Drinking Water, Sodium Thiosulfate present?	<input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> NA
List COC discrepancies:	NOA 2/21/14
List Damaged Samples:	NOA 2/21/14

Ceres Analytical Laboratory

Process Request

Ceres ID: 10263 PB: 1156 Sample #s: (Due Date: 2/26/14

Matrix (circle one): Drinking Water Aqueous Effluent Influent Ash
 Solid Soil Sediment Sludge Clay/Clay Slurry Other: _____

Method (check one):

 1613 2,3,7,8-TCDD 8290 2,3,7,8-TCDD 1613 2,3,7,8-TCDD/F 8290 2,3,7,8-TCDD/F 1613 Cl₄-Cl₈ 8290 Cl₄-Cl₈ 8280 2,3,7,8-TCDD NCASI 551 8280 2,3,7,8-TCDD/F 8280 Appendix IX 8280 Cl₄-Cl₈

Instructions:

Sample Volume Calculation

Instructions:

1. Calibrate balance
2. Tare balance
3. Place Full sample bottle with cap on balance. Record weight as Sample+Bottle Wt.
4. Weigh empty bottle and cap. Record as Bottle Wt.
5. Calculate sample Volume (assuming 1g = 1ml) as follows:

$$\text{Sample Volume} = (\text{Sample} + \text{Bottle Wt}) - \text{Empty Bottle Wt.}$$

Ceres ID	Sample +Bottle Wt.	Empty Bottle Wt.	Sample Volume
10263-1	1557.02	507.87	1.049L

Chemist:  Date: 2/21/14

Method: 1613
 SOP #: 251.1

Ceres Analytical Laboratory
 Sample Prep Bench Sheet

Ceres ID	Client ID	Ver.	wt/vol	ISS/PAR	CSS	AP	AB/AC	FC	RSS
				chem/date/witness	chem/date/witness				chem/date/witness
0-1156-MB001	Method Blank		1.000L	J 2/21/14 ML	J 2/22/14 ML	NA	J 2/22/14	NA	J 2/22/14 ML
0-1156-OPR001	OPR		1.000L	(A) ↓	↓	↓	↓	↓	↓
10263-1156-001	CX-B1 WQ Zone #2	✓	1.049L	↓	↓	↓	↓	↓	↓

Comments: (A) spiked w/ RSS.

Soxhlet Start: 14:00 2/21/14
 Soxhlet Stop: 06:25 2/22/14

Samples Logged out by: J 2/21/14 11:30
 Samples Returned by: NA
 Note samples Depleted: "A"

Sample Extracts Storage Location: Box 8
 Extracts to Instrument: 09:20 2/22/14 J
 Extracts returned to Storage Location: 09:30 2/24/14 J

Chemist: G-101

Method: 1613
SOP #: 301.1

Ceres Analytical Laboratory
Sample Prep Bench Sheet

Standard	Standard ID	Vol.	Expiration Date
ISS	S031212A	100	3/12/14
NSS	S031212B	100	3/12/14
CSS	S031212C	100	3/12/14
RSS	S031212D	200	3/12/12

Solvents/Solutions/Packing Materials

Name	Amount	Lot #	Exp. Date
Toluene	450 ml	B4020	6/10/14
Sigel	4 g	P020514A	8/5/14
Hexane	30, 30, 100, 20	136735	6/10/14
Basigel	4 g	P012014A	7/20/14
Acid gel	8 g	P012014B	7/20/14
Acid Al	6 g	P020414A	8/4/14
N92504	1.5 g	P120414A	6/4/14
20% PCM Hex	30 ml	L021914A	8/19/14

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*	Results taken from dilution.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Alkalinity QC Summary (SM 2320B)

Date Analyzed: 2/20/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	40	40.1	100.25	95-105
IPC	40	39.3	98.25	95-105

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB11873	179.7	179.1	0.3	10
AB11950	188.5	187.5	0.5	10
AB11960	157.5	156.9	0.4	10
AB11971	271.1	271.9	0.3	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

pH QC Summary (SM 4500 H+)

Date Analyzed: 2/20/2014

	Value (pH Units)	Result (pH Units)	% Rec	Acceptance Criteria %Rec
IPC	6.86	6.83	99.6	95-105

Sample ID	Sample (pH Units)	Sample Dup (pH Units)	% RPD	Acceptance Criteria % RPD
AB11965	6.9	6.9	0.0	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Specific Conductance QC Summary (SM 2510B)

Date Analyzed: 2/20/2014

	Value (umhos/cm)	Result (umhos/cm)	% Rec	Acceptance Criteria %Rec
IPC	1412	1412	100.0%	95-105

Sample ID	Sample (umhos/cm)	Sample Dup (umhos/cm)	% RPD	Acceptance Criteria % RPD
AB11953	496	496	0.0%	10
AB11963	339	339	0.0%	10
AB11974	751	746	0.7%	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Turbidity QC Summary (EPA 180.1)

Date Analyzed: 2/20/2014

	Value (NTU)	Result (NTU)	% Rec	Acceptance Criteria %Rec
IPC	1.00	1.03	103.0	95-105

Sample ID	Sample (NTU)	Sample Dup (NTU)	% RPD	Acceptance Criteria % RPD
AB11965	2.77	2.87	3.5	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

Date Analyzed: 20140220

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

300.0 QC Summary

All units expressed in mg/L

		F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
		2	20	2	20	2	2	2
IPC		2.01	19.95	2.11	19.43	2.06	1.99	1.95
Recovery	90-110%	100.45	99.77	105.63	97.16	103.01	99.50	97.65
CCV1		2.01	20.04	2.13	19.59	2.06	2.00	1.99
Recovery	90-110%	100.49	100.22	106.51	97.94	103.08	100.07	99.63
RPD	10%	0.05	0.45	0.83	0.80	0.08	0.57	2.01
CCV2		2.03	20.10	2.14	19.61	2.05	2.00	2.01
Recovery	90-110%	101.25	100.51	107.00	98.04	102.65	100.15	100.50
RPD	10%	0.80	0.73	1.29	0.90	0.34	0.65	2.88
CCV3		2.01	20.00	2.12	19.50	2.04	1.99	1.94
Recovery	90-110%	100.28	100.01	105.92	97.50	101.83	99.60	97.05
RPD	10%	0.17	0.24	0.27	0.35	1.15	0.10	0.61
CCV4		2.03	20.14	2.13	19.56	2.05	1.99	1.94
Recovery	90-110%	101.52	100.71	106.31	97.80	102.46	99.66	97.02
RPD	10%	1.06	0.93	0.64	0.66	0.53	0.16	0.65

	F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
	2	20	2	20	2	2	2
AB11955	0.23	10.65	0.48	15.87	0.13	1.58	0.07
AB11955+LFM	2.29	30.70	2.35	35.38	1.82	3.59	1.84
AB11955+LFMD	2.30	30.84	2.36	35.45	1.81	3.60	1.88
Average	2.30	30.77	2.36	35.42	1.81	3.60	1.86
Recovery 80-120%	103.49	100.59	93.81	97.75	83.91	100.88	89.38
RPD 10%	0.76	0.48	0.17	0.18	0.54	0.24	2.42

ICP-OES EPA 200.7

Batch # 20140221

Analyte/ WL	Range	IC	Prep	LCS	%Rec	LCSD	%Rec	%Diff	IC Verification			QCS (95-105%)		
		Blank	Blank	Value	85-115%	Value	85-115%		Value	Result	%Rec	Value	Result	%Rec
B 249.678	0.05-5ppm	0.00	0.00	1.00	100.3%	1.04	104.1%	3.7%	1	0.98	98.4%	1	0.96	96.3%
B 249.772	0.05-5ppm	0.01	0.00	1.01	100.7%	1.04	103.6%	2.9%	1	0.99	98.9%	1	0.96	96.3%
Ca 317.933	50-300ppm	-6.23	-6.24	48.1	96.3%	49.6	99.2%	3.0%	50	48.2	96.5%	50	46.8	93.6%
Ca 396.847	0.5-50ppm	-0.23	-0.24	49.1	98.2%	51.4	102.8%	4.5%	50	49.1	98.2%	50	48.7	97.5%
Cu 324.754	10ppb-100ppm	-3.68	-2.80	997	99.7%	1038	103.8%	4.0%	1000	984	98.4%	1000	984	98.4%
Cu 327.395	10ppb-100ppm	-0.27	0.98	990	99.0%	1025	102.5%	3.5%	1000	980	98.0%	1000	983	98.3%
Fe 238.204	10ppb-100ppm	0.91	0.00	992	99.2%	1017	101.7%	2.5%	1000	984	98.4%	1000	965	96.5%
Fe 259.940	10ppb-100ppm	-0.38	0.60	992	99.2%	1025	102.5%	3.2%	1000	995	99.5%	1000	968	96.8%
K 766.491	0.1-750ppm	0.14	0.11	9.8	97.7%	10.2	101.8%	4.1%	10	9.8	97.7%	10	9.6	96.2%
Mg 202.582	50-1000ppm	-2.11	-2.13	49.1	98.2%	51.0	102.0%	3.8%	50	49.4	98.9%	50	48.6	97.3%
Mg 279.078	0.5-50ppm	0.01	-0.03	49.2	98.4%	50.9	101.8%	3.4%	50	49.3	98.6%	50	48.5	96.9%
Mn 257.610	10ppb-11ppm	-1.16	-1.87	994	99.4%	1022	102.2%	2.8%	1000	986	98.6%	1000	966	96.6%
Mn 260.568	10ppb-11ppm	-0.35	-1.41	990	99.0%	1020	102.0%	3.0%	1000	978	97.8%	1000	960	96.0%
Na 568.821	50-1000ppm	2.64	3.62	47.6	95.3%	48.8	97.5%	2.3%	50	47.9	95.7%	50	47.8	95.5%
Na 589.592	0.5-50ppm	0.11	0.05	49.3	98.6%	51.2	102.4%	3.8%	50	49.5	99.0%	50	48.3	96.7%
Si 251.611	0.5-200ppm	0.12	0.05	50.0	99.9%	51.1	102.2%	2.2%	50	49.3	98.6%	107	102.5	95.8%
Si 252.411	0.5-200ppm	0.13	0.04	50.2	100.4%	51.1	102.3%	1.8%	50	49.3	98.5%	107	102.7	96.0%
Zn 213.857	10ppb-50ppm	-1.25	-3.10	989	98.9%	1017	101.7%	2.9%	1000	989	98.9%	1000	958	95.8%

Matrix Spikes

Sample ID AB11636

Analyte/ WL	Sample Value	MS	%Rec	MSD	%Rec	%Diff	CCV (90-110%)			%Diff	CC
		Value	70-130%	Value	70-130%		Value	Result	%Rec	10%	Blank
B 249.678	0.18	1.17	98.1%	1.17	98.8%	0.6%	1	1.00	99.8%	1.4%	0.00
B 249.772	0.18	1.17	98.2%	1.17	98.2%	0.0%	1	1.00	100.0%	1.0%	0.00
Ca 317.933	-6.23	46.7	105.9%	47.0	106.4%	0.6%	50	47.9	95.7%	0.8%	-6.25
Ca 396.847	-0.23	48.9	98.2%	48.8	98.1%	0.2%	50	49.7	99.5%	1.3%	-0.25
Cu 324.754	-3.42	991	99.4%	998	100.1%	0.7%	1000	995	99.5%	1.2%	-2.54
Cu 327.395	2.88	990	98.7%	995	99.2%	0.5%	1000	997	99.7%	1.7%	0.99
Fe 238.204	-1.92	970	97.2%	972	97.4%	0.2%	1000	992	99.2%	0.8%	0.05
Fe 259.940	-2.92	970	97.3%	974	97.6%	0.4%	1000	993	99.3%	0.1%	0.37
K 766.491	0.63	10.2	95.9%	10.3	96.4%	0.4%	10	9.9	99.4%	1.7%	0.11
Mg 202.582	-2.18	49.1	102.5%	49.2	102.8%	0.3%	50	49.8	99.6%	0.7%	-2.12
Mg 279.078	-0.01	48.9	97.8%	48.9	97.8%	0.0%	50	49.6	99.2%	0.6%	-0.01
Mn 257.610	-2.30	976	97.8%	975	97.7%	0.1%	1000	990	99.0%	0.4%	-1.91
Mn 260.568	-0.84	972	97.3%	970	97.1%	0.2%	1000	988	98.8%	1.0%	-1.00
Na 568.821	5.30	53.0	95.5%	51.3	92.0%	3.3%	50	47.5	95.0%	0.8%	2.91
Na 589.592	4.81	53.6	97.6%	53.9	98.1%	0.5%	50	50.3	100.5%	1.5%	0.06
Si 251.611	0.32	49.4	98.2%	49.5	98.3%	0.2%	50	49.4	98.7%	0.2%	0.02
Si 252.411	0.34	49.3	98.0%	49.5	98.3%	0.3%	50	49.4	98.9%	0.3%	0.02
Zn 213.857	19.84	995	97.5%	995	97.5%	0.0%	1000	987	98.7%	0.2%	-2.05

Note: Italics indicates that the result is outside the calibration range.

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
 http://www.MBASinc.com

Ammonia by Electrode QC Summary (SM 4500-NH3)

Date: 2/25/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC Low	0.050	0.049	98	90-110
IPC	0.500	0.453	90.6	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB11890	1.080	0.500	1.530	1.630	90	110	6.3	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; IPC = Instrument Performance Check

RPD = Relative Percent Difference; Rec = Recovery

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

AB11965
SAMPLE ID **Zone 2 Total**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	2913	0.04350	126.72
Potassium	36	0.02558	0.92
Calcium	1581	0.04990	78.89
Magnesium	674	0.08229	55.46
NH3-N	0	0.07143	0.00
		SUM	261.99

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	132	0.02000	2.64
Sulfate	991	0.02082	20.63
Chloride	8796	0.02821	248.14
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0	0.07138	0.00
Phosphate-P	0.1	0.01031	0.00
Fluoride	0.1	0.05264	0.01
Bromide	41.0	0.01252	0.51
		SUM	271.93

ANION-CATION BALANCE: **-2** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	24570	
Cation Sum X 100	26199	107%
Anion Sum X 100	27193	111%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	15.5
Ca+Mg+Na	261.07
HCO3/Ca	0.03
dS/m	24.57
Value Table II	1.5
SAR adj	23.7

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

Cal Am Water Company
 Travis Peterson
 511 Pacific Lodge Road, Suite 100
 Pacific Grove, CA 93950

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net

ELAP Certification Number: 2385

Lab Number: AB12015

Collection Date/Time: 2/21/2014 13:10 Sample Collector: REYNOLDS N.
 Submittal Date/Time: 2/21/2014 16:55 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-BIWQ Zone #3 (182-192 ftbgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	167		2		2/24/2014	LRH
Aluminum, Total	EPA200.8	ug/L	Not Detected	E	10	1000	2/27/2014	MC LAB
Ammonia-N, Dissolved	SM4500NH3 D	mg/L	Not Detected		0.05		2/25/2014	DH
Arsenic, Total	EPA200.8	ug/L	Not Detected	E	1	10	2/27/2014	MC LAB
Barium, Dissolved	EPA200.8	ug/L	Not Detected	E	10		2/27/2014	MC LAB
Bicarbonate (as HCO3-)	SM2320B	mg/L	204		10		2/25/2014	SM
Boron, Dissolved	EPA200.7	mg/L	1.54		0.05		2/25/2014	DC
Bromide, Dissolved	EPA300.0	mg/L	49.6		0.1		2/21/2014	DC
Calcium	EPA200.7	mg/L	2090		0.5		2/25/2014	DC
Calcium, Dissolved	EPA200.7	mg/L	2018		0.5		2/25/2014	DC
Carbamates by HPLC (EPA 531)	EPA531	ug/L	Not Detected	E			2/26/2014	BSK
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		2/25/2014	SM
Chloride, Dissolved	EPA300.0	mg/L	17995		1		2/21/2014	DC
Chlorinated Pesticides and PCB (EP	EPA508	ug/L	Not Detected	E			2/28/2014	WECK
Color, Apparent (Unfiltered)	SM2120B	Color Units	Not Detected		3	15	2/23/2014	DH
Copper, Total	EPA200.8	ug/L	Not Detected	E	4	1300	2/27/2014	MC LAB
DBCP & EDB	EPA504.1	ug/L	Not Detected	E			2/26/2014	BSK
Dioxin	EPA-5 1613B	pg/L	Not Detected	E			2/28/2014	CERES
Diquat (EPA 549)	EPA549	ug/L	Not Detected	E			2/28/2014	BSK
Dissolved Anions		Meq/L	567.6				3/6/2014	DH
Dissolved Cations		Meq/L	564.9				3/6/2014	DH
Endothall	EPA548.1	ug/L	Not Detected	E			2/26/2014	BSK
Fluoride, Dissolved	EPA300.0	mg/L	Not Detected		0.1		2/21/2014	DC
Glyphosate	EPA547	ug/L	Not Detected	E			3/1/2014	BSK
Hardness (as CaCO3)	SM2340B	mg/L	9880		10		2/26/2014	DH
Hydroxide	SM2320B	mg/L	Not Detected		5		2/25/2014	SM
Iodide	EPA9056M	ug/L	190	E	10		3/1/2014	WECK
Iron	EPA200.7	ug/L	1928		10	300	2/25/2014	DC
Iron, Dissolved	EPA200.7	ug/L	1780		10	300	2/25/2014	DC
Kjehldahl Nitrogen, Dissolved	SM4500-NH3 B,	mg/L	0.3	J	0.5		2/25/2014	HM
Lithium	EPA200.8	ug/L	140	E	1		2/27/2014	MC LAB
Magnesium	EPA200.7	mg/L	1132		0.5		2/25/2014	DC
Magnesium, Dissolved	EPA200.7	mg/L	1078		1		2/25/2014	DC
Manganese, Dissolved	EPA200.7	ug/L	361		10	50	2/25/2014	DC
Manganese, Total	EPA200.7	ug/L	382		10	50	2/25/2014	DC
MBAS (Surfactants)	SM5540C	mg/L	Not Detected		0.05	0.50	2/23/2014	DH
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	2/21/2014	DC
Nitrate+Nitrite as N	EPA300.0	mg/L	Not Detected		0.1		2/21/2014	DC
Nitrite as NO2-N, Dissolved	EPA300.0	mg/L	Not Detected		0.1		2/21/2014	DC

Lab Number: AB12015**Appendix G**Collection Date/Time: 2/21/2014 13:10
Submittal Date/Time: 2/21/2014 16:55Sample Collector: REYNOLDS N.
Sample ID: GEOSCIENCE

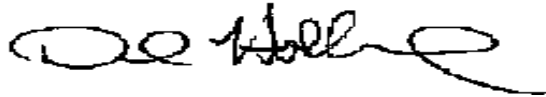
Coliform Designation:

Sample Description: CX-BIWQ Zone #3 (182-192 ftbgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Odor Threshold at 60 C	SM2150B	TON	1		1	3	2/23/2014	DH
o-Phosphate-P, Dissolved	Hach 8190	mg/L	0.08		0.1		2/24/2014	DH
pH (Field Test)	SM4500-H+B	pH	6.79				2/21/2014	NR
pH (Laboratory)	SM4500-H+B	pH (H)	6.9				2/21/2014	HM
Phenoxy Acid Herbicides (515.3)	EPA515.3	ug/L	Not Detected	E			3/4/2014	BSK
Phosphorus, Dissolved	HACH 8190	mg/L	0.08		0.03		2/24/2014	DH
Potassium	EPA200.7	mg/L	36		0.5		2/25/2014	DC
Potassium, Dissolved	EPA200.7	mg/L	34		0.1		2/25/2014	DC
QC Ratio TDS/SEC	Calculation		0.73				2/27/2014	SM
Reg. Org. Compounds (EPA 525)	EPA525	ug/L	Not Detected	E			2/26/2014	BSK
Silica as SiO2, Dissolved	EPA200.7	mg/L	25		0.5		2/25/2014	DC
Sodium	EPA200.7	mg/L	9146		0.5		2/25/2014	DC
Sodium, Dissolved	EPA200.7	mg/L	8612		0.5		2/25/2014	DC
Specific Conductance (E.C)	SM2510B	umhos/cm	48770		1	900	2/26/2014	HM
Specific Conductance (E.C) (Field)	SM2510B	umhos/cm	47112		1		2/21/2014	NR
Strontium, Dissolved	EPA200.8	ug/L	12000	E	5		2/27/2014	MC LAB
Sulfate	EPA300.0	mg/L	2688		1	250	2/21/2014	DC
Temperature (Field)	SM2550	° C	18.8				2/21/2014	NR
Total Cations		Meq/L	596.2				3/6/2014	DH
Total Diss. Solids	SM2540C	mg/L	35600		10	500	2/25/2014	HM
Turbidity	EPA180.1	NTU	0.70		0.05	5.0	2/21/2014	LRH
Turbidity (Field)	EPA180.1	NTU	0.25		0.05		2/21/2014	NR
Volatile Org. Compounds (524)	EPA524	ug/L	Not Detected	E			2/26/2014	BSK
Zinc, Total	EPA200.8	ug/L	Not Detected	E	10	5000	2/27/2014	MC LAB

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12015 Zone #3**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	8612	0.04350	374.62
Potassium	34	0.02558	0.87
Calcium	2018	0.04990	100.70
Magnesium	1078	0.08229	88.71
NH3-N	0	0.07143	0.00
		SUM	564.90

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	167	0.02000	3.34
Sulfate	2688	0.02082	55.96
Chloride	17995	0.02821	507.64
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0	0.07138	0.00
Phosphate-P	0.1	0.01031	0.00
Fluoride	0.0	0.05264	0.00
Bromide	49.6	0.01252	0.62
		SUM	567.56

ANION-CATION BALANCE **0** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	48770	
Cation Sum X 100	56490	116%
Anion Sum X 100	56756	116%

Note: In Natural Waters, Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	38.5
Ca+Mg+Na	564.03
HCO ₃ /Ca	0.03
dS/m	48.77
Value Table II	1.5
SAR adj	55.8

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

12015 Zone 3

SAMPLE ID	Total		
CORRECTNESS OF ANALYSIS			
CATION	MG/L	FACTOR	MEQ/L
Sodium	9146	0.04350	397.85
Potassium	36	0.02558	0.92
Calcium	2090	0.04990	104.29
Magnesium	1132	0.08229	93.15
NH3-N	0	0.07143	0.00
		SUM	596.22
ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	167	0.02000	3.34
Sulfate	2688	0.02082	55.96
Chloride	17995	0.02821	507.64
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0	0.07138	0.00
Phosphate-P	0.1	0.01031	0.00
Fluoride	0.0	0.05264	0.00
Bromide	49.6	0.01252	0.62
		SUM	567.56

ANION-CATION BALANCE: **2** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	48770	
Cation Sum X 100	59622	122%
Anion Sum X 100	56756	116%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	40.0
Ca+Mg+Na	595.29
HCO3/Ca	0.03
dS/m	48.77
Value Table II	1.5
SAR adj	57.8

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Appendix G

A4B1813

3/05/2014

Invoice: A405383

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

RE: Report for A4B1813 Cal Am

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 2/25/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montieth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montieth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: Monterey Bay Analytical
Report To: David Holland
Project #: -
Received: 2/25/2014 - 10:00
Report Due: 3/04/2014

Invoice To: Monterey Bay Analytical
Invoice Attn: David Holland
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 1.0	COC/Labels Agree
	Received On Wet Ice
	Packing Material - Bubble Wrap
	Sample(s) were received in temperature range.
	Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.

Report Distribution

Recipient(s)	Report Format
David Holland	Final.rpt

Certificate of Analysis

Sample ID: A4B1813-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone#3 (182-192 ft bgs) // 12015

Sample Date - Time: 02/21/14 - 13:10
Matrix: Water
Sample Type: Grab

Field Data: Cond.=47000 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A402381	02/25/14	02/26/14	CV0.0
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A402381	02/25/14	02/26/14	CV0.0
Surrogate: 1-Br-2-Nitrobenzene	EPA 504.1	113 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A402617	03/04/14	03/04/14	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A402617	03/04/14	03/04/14	
2,4-D	EPA 515.3	ND	10	ug/L	1	A402617	03/04/14	03/04/14	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A402617	03/04/14	03/04/14	
Dalapon	EPA 515.3	ND	10	ug/L	1	A402617	03/04/14	03/04/14	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A402617	03/04/14	03/04/14	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A402617	03/04/14	03/04/14	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A402617	03/04/14	03/04/14	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A402617	03/04/14	03/04/14	
Surrogate: DCPAA	EPA 515.3	72 %	<i>Acceptable range: 70-130 %</i>						
<u>Volatile Organics by GC-MS</u>									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A402390	02/26/14	02/26/14	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A402390	02/26/14	02/26/14	BS1.0
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A402390	02/26/14	02/26/14	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A402390	02/26/14	02/26/14	

Certificate of Analysis

Sample ID: A4B1813-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone#3 (182-192 ft bgs) // 12015

Sample Date - Time: 02/21/14 - 13:10
Matrix: Water
Sample Type: Grab

Field Data: Cond.=47000 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Acetone	EPA 524.2	ND	10	ug/L	1	A402390	02/26/14	02/26/14	BS1.0, CV0.0
Benzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A402390	02/26/14	02/26/14	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	BS1.0, CV0.0
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A402390	02/26/14	02/26/14	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A402390	02/26/14	02/26/14	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	

Certificate of Analysis

Sample ID: A4B1813-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone#3 (182-192 ft bgs) // 12015

Sample Date - Time: 02/21/14 - 13:10
Matrix: Water
Sample Type: Grab

Field Data: Cond.=47000 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A402390	02/26/14	02/26/14	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	98 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	102 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A402368	02/25/14	02/26/14	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A402368	02/25/14	02/26/14	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Bromacil	EPA 525.2	ND	10	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A402368	02/25/14	02/26/14	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A402368	02/25/14	02/26/14	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A402368	02/25/14	02/26/14	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A402368	02/25/14	02/26/14	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	116 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A402388	02/25/14	02/26/14	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A402388	02/25/14	02/26/14	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A402388	02/25/14	02/26/14	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A402388	02/25/14	02/26/14	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A402388	02/25/14	02/26/14	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A402388	02/25/14	02/26/14	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A402388	02/25/14	02/26/14	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A402388	02/25/14	02/26/14	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A402555	03/01/14	03/01/14	
Surrogate: AMPA	EPA 547	104 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A402387	02/25/14	02/26/14	

Certificate of Analysis

Sample ID: A4B1813-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone#3 (182-192 ft bgs) // 12015

Sample Date - Time: 02/21/14 - 13:10
Matrix: Water
Sample Type: Grab

Field Data: Cond.=47000 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A402367	02/25/14	02/28/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A402381

Prepared: 02/25/2014

Prep Method: EPA 505

Analyst: GAK

Blank (A402381-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							02/26/14
Ethylene Dibromide (EDB)	ND	0.020	ug/L							02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.8			3.4		110	70-130			02/26/14

Blank Spike (A402381-BS1)

Dibromochloropropane (DBCP)	0.24	0.010	ug/L	0.20		118	70-130			02/26/14
Ethylene Dibromide (EDB)	0.23	0.020	ug/L	0.20		113	70-130			02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.6			3.4		104	70-130			02/26/14

Blank Spike Dup (A402381-BSD1)

Dibromochloropropane (DBCP)	0.25	0.010	ug/L	0.20		125	70-130	5	20	02/26/14
Ethylene Dibromide (EDB)	0.24	0.020	ug/L	0.20		122	70-130	7	20	02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.7			3.4		109	70-130			02/26/14

Matrix Spike (A402381-MS1), Source: A4B1641-01

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20	ND	111	65-135			02/26/14
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.20	ND	109	65-135			02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.3			3.4		99	70-130			02/26/14

Matrix Spike Dup (A402381-MSD1), Source: A4B1641-01

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20	ND	114	65-135	3	20	02/26/14
Ethylene Dibromide (EDB)	0.23	0.020	ug/L	0.20	ND	115	65-135	5	20	02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.4			3.4		101	70-130			02/26/14

EPA 515.3 - Quality Control

Batch: A402617

Prepared: 03/04/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank (A402617-BLK1)

2,4,5-T	ND	1.0	ug/L							03/04/14
2,4,5-TP (Silvex)	ND	1.0	ug/L							03/04/14
2,4-D	ND	10	ug/L							03/04/14
Bentazon	ND	2.0	ug/L							03/04/14
Dalapon	ND	10	ug/L							03/04/14
Dicamba	ND	1.5	ug/L							03/04/14
Dinoseb	ND	2.0	ug/L							03/04/14
Pentachlorophenol	ND	0.20	ug/L							03/04/14
Picloram	ND	1.0	ug/L							03/04/14
Surrogate: DCPAA	45			58		78	70-130			03/04/14

Blank Spike (A402617-BS1)

2,4,5-T	3.8	1.0	ug/L	4.0		95	70-130			03/04/14
2,4,5-TP (Silvex)	0.79	1.0	ug/L	0.80		99	70-130			03/04/14
2,4-D	0.39	10	ug/L	0.40		97	70-130			03/04/14
Bentazon	7.6	2.0	ug/L	8.0		95	70-130			03/04/14
Dalapon	3.1	10	ug/L	4.0		78	70-130			03/04/14

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A402617

Prepared: 03/04/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike (A402617-BS1)

Dicamba	5.7	1.5	ug/L	6.0		95	70-130			03/04/14	
Dinoseb	0.77	2.0	ug/L	0.80		97	70-130			03/04/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16		97	70-130			03/04/14	
Picloram	0.32	1.0	ug/L	0.40		80	70-130			03/04/14	
Surrogate: DCPAA	46			58		80	70-130			03/04/14	

Blank Spike Dup (A402617-BSD1)

2,4,5-T	3.9	1.0	ug/L	4.0		97	70-130	1	20	03/04/14	
2,4,5-TP (Silvex)	0.79	1.0	ug/L	0.80		98	70-130	1	20	03/04/14	
2,4-D	0.39	10	ug/L	0.40		97	70-130	1	20	03/04/14	
Bentazon	7.6	2.0	ug/L	8.0		95	70-130	0	20	03/04/14	
Dalapon	3.5	10	ug/L	4.0		87	70-130	10	20	03/04/14	
Dicamba	5.9	1.5	ug/L	6.0		98	70-130	2	20	03/04/14	
Dinoseb	0.76	2.0	ug/L	0.80		96	70-130	1	20	03/04/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16		96	70-130	1	20	03/04/14	
Picloram	0.36	1.0	ug/L	0.40		90	70-130	11	20	03/04/14	
Surrogate: DCPAA	47			58		81	70-130			03/04/14	

Matrix Spike (A402617-MS1), Source: A4B1813-01

2,4,5-T	4.1	1.0	ug/L	4.0	ND	103	70-130			03/04/14	
2,4,5-TP (Silvex)	0.83	1.0	ug/L	0.80	ND	104	70-130			03/04/14	
2,4-D	0.40	10	ug/L	0.40	ND	101	70-130			03/04/14	
Bentazon	7.9	2.0	ug/L	8.0	ND	98	70-130			03/04/14	
Dalapon	3.0	10	ug/L	4.0	ND	75	70-130			03/04/14	
Dicamba	6.1	1.5	ug/L	6.0	ND	102	70-130			03/04/14	
Dinoseb	0.78	2.0	ug/L	0.80	ND	98	70-130			03/04/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	96	70-130			03/04/14	
Picloram	0.37	1.0	ug/L	0.40	ND	93	70-130			03/04/14	
Surrogate: DCPAA	43			58		74	70-130			03/04/14	

Matrix Spike Dup (A402617-MSD1), Source: A4B1813-01

2,4,5-T	4.2	1.0	ug/L	4.0	ND	104	70-130	1	20	03/04/14	
2,4,5-TP (Silvex)	0.84	1.0	ug/L	0.80	ND	105	70-130	1	20	03/04/14	
2,4-D	0.40	10	ug/L	0.40	ND	99	70-130	2	20	03/04/14	
Bentazon	8.0	2.0	ug/L	8.0	ND	99	70-130	1	20	03/04/14	
Dalapon	3.3	10	ug/L	4.0	ND	82	70-130	9	20	03/04/14	
Dicamba	6.1	1.5	ug/L	6.0	ND	102	70-130	0	20	03/04/14	
Dinoseb	0.79	2.0	ug/L	0.80	ND	99	70-130	1	20	03/04/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	96	70-130	1	20	03/04/14	
Picloram	0.39	1.0	ug/L	0.40	ND	98	70-130	5	20	03/04/14	
Surrogate: DCPAA	40			58		70	70-130			03/04/14	

EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402390-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							02/26/14	
1,1,1-Trichloroethane	ND	0.50	ug/L							02/26/14	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							02/26/14	
1,1,2-Trichloroethane	ND	0.50	ug/L							02/26/14	
1,1-Dichloroethane	ND	0.50	ug/L							02/26/14	
1,1-Dichloroethene	ND	0.50	ug/L							02/26/14	
1,1-Dichloropropene	ND	0.50	ug/L							02/26/14	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							02/26/14	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							02/26/14	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							02/26/14	
1,2-Dichlorobenzene	ND	0.50	ug/L							02/26/14	
1,2-Dichloroethane	ND	0.50	ug/L							02/26/14	
1,2-Dichloropropane	ND	0.50	ug/L							02/26/14	
1,3,5-Trimethylbenzene	ND	0.50	ug/L							02/26/14	
1,3-Dichlorobenzene	ND	0.50	ug/L							02/26/14	
1,3-Dichloropropane	ND	0.50	ug/L							02/26/14	
1,4-Dichlorobenzene	ND	0.50	ug/L							02/26/14	
2,2-Dichloropropane	ND	0.50	ug/L							02/26/14	
2-Butanone	ND	5.0	ug/L							02/26/14	
2-Chlorotoluene	ND	0.50	ug/L							02/26/14	
2-Hexanone	ND	10	ug/L							02/26/14	
4-Chlorotoluene	ND	0.50	ug/L							02/26/14	
4-Methyl-2-pentanone	ND	5.0	ug/L							02/26/14	
Acetone	ND	10	ug/L							02/26/14	
Benzene	ND	0.50	ug/L							02/26/14	
Bromobenzene	ND	0.50	ug/L							02/26/14	
Bromochloromethane	ND	0.50	ug/L							02/26/14	
Bromodichloromethane	ND	0.50	ug/L							02/26/14	
Bromoform	ND	0.50	ug/L							02/26/14	
Bromomethane	ND	0.50	ug/L							02/26/14	
Carbon Tetrachloride	ND	0.50	ug/L							02/26/14	
Chlorobenzene	ND	0.50	ug/L							02/26/14	
Chloroethane	ND	0.50	ug/L							02/26/14	
Chloroform	ND	0.50	ug/L							02/26/14	
Chloromethane	ND	0.50	ug/L							02/26/14	
cis-1,2-Dichloroethene	ND	0.50	ug/L							02/26/14	
cis-1,3-Dichloropropene	ND	0.50	ug/L							02/26/14	
Dibromochloromethane	ND	0.50	ug/L							02/26/14	
Dibromomethane	ND	0.50	ug/L							02/26/14	
Dichlorodifluoromethane	ND	0.50	ug/L							02/26/14	
Dichloromethane	ND	0.50	ug/L							02/26/14	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							02/26/14	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							02/26/14	
Ethylbenzene	ND	0.50	ug/L							02/26/14	
Hexachlorobutadiene	ND	0.50	ug/L							02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402390-BLK1)

Isopropylbenzene	ND	0.50	ug/L							02/26/14	
m,p-Xylenes	ND	0.50	ug/L							02/26/14	
Methyl-t-butyl ether	ND	0.50	ug/L							02/26/14	
Naphthalene	ND	0.50	ug/L							02/26/14	
n-Butylbenzene	ND	0.50	ug/L							02/26/14	
n-Propylbenzene	ND	0.50	ug/L							02/26/14	
o-Xylene	ND	0.50	ug/L							02/26/14	
p-Isopropyltoluene	ND	0.50	ug/L							02/26/14	
sec-Butylbenzene	ND	0.50	ug/L							02/26/14	
Styrene	ND	0.50	ug/L							02/26/14	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							02/26/14	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							02/26/14	
tert-Butylbenzene	ND	0.50	ug/L							02/26/14	
Tetrachloroethene (PCE)	ND	0.50	ug/L							02/26/14	
Toluene	ND	0.50	ug/L							02/26/14	
trans-1,2-Dichloroethene	ND	0.50	ug/L							02/26/14	
trans-1,3-Dichloropropene	ND	0.50	ug/L							02/26/14	
Trichloroethene (TCE)	ND	0.50	ug/L							02/26/14	
Trichlorofluoromethane	ND	5.0	ug/L							02/26/14	
Vinyl Chloride	ND	0.50	ug/L							02/26/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		95	70-130			02/26/14	
Surrogate: Bromofluorobenzene	50			50		101	70-130			02/26/14	

Blank Spike (A402390-BS1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		108	70-130			02/26/14	
1,1,1-Trichloroethane	11	0.50	ug/L	10		106	70-130			02/26/14	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		107	70-130			02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	11	10	ug/L	10		106	70-130			02/26/14	
1,1,2-Trichloroethane	11	0.50	ug/L	10		107	70-130			02/26/14	
1,1-Dichloroethane	10	0.50	ug/L	10		105	70-130			02/26/14	
1,1-Dichloroethene	10	0.50	ug/L	10		103	70-130			02/26/14	
1,1-Dichloropropene	11	0.50	ug/L	10		108	70-130			02/26/14	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		103	70-130			02/26/14	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
1,2-Dichlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,2-Dichloroethane	10	0.50	ug/L	10		101	70-130			02/26/14	
1,2-Dichloropropane	10	0.50	ug/L	10		105	70-130			02/26/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,3-Dichlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,3-Dichloropropane	11	0.50	ug/L	10		108	70-130			02/26/14	
1,4-Dichlorobenzene	11	0.50	ug/L	10		105	70-130			02/26/14	
2,2-Dichloropropane	11	0.50	ug/L	10		108	70-130			02/26/14	
2-Butanone	14	5.0	ug/L	10		139	70-130			02/26/14	BS High
2-Chlorotoluene	10	0.50	ug/L	10		104	70-130			02/26/14	
2-Hexanone	12	10	ug/L	10		115	70-130			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A402390-BS1)

4-Chlorotoluene	11	0.50	ug/L	10		106	70-130			02/26/14	
4-Methyl-2-pentanone	12	5.0	ug/L	10		119	70-130			02/26/14	
Acetone	22	10	ug/L	10		221	70-130			02/26/14	BS High
Benzene	10	0.50	ug/L	10		101	70-130			02/26/14	
Bromobenzene	11	0.50	ug/L	10		107	70-130			02/26/14	
Bromochloromethane	10	0.50	ug/L	10		104	70-130			02/26/14	
Bromodichloromethane	8.5	0.50	ug/L	10		85	70-130			02/26/14	
Bromoform	11	0.50	ug/L	10		115	70-130			02/26/14	
Bromomethane	9.5	0.50	ug/L	10		95	70-130			02/26/14	
Carbon Tetrachloride	11	0.50	ug/L	10		110	70-130			02/26/14	
Chlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
Chloroethane	10	0.50	ug/L	10		100	70-130			02/26/14	
Chloroform	10	0.50	ug/L	10		102	70-130			02/26/14	
Chloromethane	9.6	0.50	ug/L	10		96	70-130			02/26/14	
cis-1,2-Dichloroethene	10	0.50	ug/L	10		104	70-130			02/26/14	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		109	70-130			02/26/14	
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130			02/26/14	
Dibromomethane	11	0.50	ug/L	10		114	70-130			02/26/14	
Dichlorodifluoromethane	9.9	0.50	ug/L	10		99	70-130			02/26/14	
Dichloromethane	11	0.50	ug/L	10		106	70-130			02/26/14	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		107	70-130			02/26/14	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		111	70-130			02/26/14	
Ethylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
Hexachlorobutadiene	10	0.50	ug/L	10		104	70-130			02/26/14	
Isopropylbenzene	10	0.50	ug/L	10		103	70-130			02/26/14	
m,p-Xylenes	19	0.50	ug/L	20		96	70-130			02/26/14	
Methyl-t-butyl ether	22	0.50	ug/L	20		108	70-130			02/26/14	
Naphthalene	11	0.50	ug/L	10		109	70-130			02/26/14	
n-Butylbenzene	10	0.50	ug/L	10		103	70-130			02/26/14	
n-Propylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
o-Xylene	10	0.50	ug/L	10		104	70-130			02/26/14	
p-Isopropyltoluene	11	0.50	ug/L	10		106	70-130			02/26/14	
sec-Butylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
Styrene	13	0.50	ug/L	10		129	70-130			02/26/14	
tert-Amyl Methyl Ether (TAME)	11	3.0	ug/L	10		111	70-130			02/26/14	
tert-Butyl alcohol (TBA)	11	2.0	ug/L	10		107	70-130			02/26/14	
tert-Butylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
Tetrachloroethene (PCE)	10	0.50	ug/L	10		104	70-130			02/26/14	
Toluene	11	0.50	ug/L	10		106	70-130			02/26/14	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		105	70-130			02/26/14	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		109	70-130			02/26/14	
Trichloroethene (TCE)	9.4	0.50	ug/L	10		94	70-130			02/26/14	
Trichlorofluoromethane	11	5.0	ug/L	10		107	70-130			02/26/14	
Vinyl Chloride	9.9	0.50	ug/L	10		99	70-130			02/26/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		100	70-130			02/26/14	
Surrogate: Bromofluorobenzene	5.0			5.0		100	70-130			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402390-BSD1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		109	70-130	1	30	02/26/14	
1,1,1-Trichloroethane	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		109	70-130	2	30	02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	11	10	ug/L	10		110	70-130	3	30	02/26/14	
1,1,2-Trichloroethane	11	0.50	ug/L	10		108	70-130	2	30	02/26/14	
1,1-Dichloroethane	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
1,1-Dichloroethene	11	0.50	ug/L	10		108	70-130	5	30	02/26/14	
1,1-Dichloropropene	11	0.50	ug/L	10		110	70-130	1	30	02/26/14	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		105	70-130	2	30	02/26/14	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		108	70-130	2	30	02/26/14	
1,2,4-Trimethylbenzene	11	0.50	ug/L	10		110	70-130	6	30	02/26/14	
1,2-Dichlorobenzene	11	0.50	ug/L	10		106	70-130	0	30	02/26/14	
1,2-Dichloroethane	11	0.50	ug/L	10		107	70-130	6	30	02/26/14	
1,2-Dichloropropane	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		111	70-130	5	30	02/26/14	
1,3-Dichlorobenzene	11	0.50	ug/L	10		107	70-130	1	30	02/26/14	
1,3-Dichloropropane	11	0.50	ug/L	10		109	70-130	1	30	02/26/14	
1,4-Dichlorobenzene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
2,2-Dichloropropane	11	0.50	ug/L	10		112	70-130	4	30	02/26/14	
2-Butanone	14	5.0	ug/L	10		139	70-130	0	30	02/26/14	BS High
2-Chlorotoluene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
2-Hexanone	12	10	ug/L	10		115	70-130	0	30	02/26/14	
4-Chlorotoluene	11	0.50	ug/L	10		110	70-130	4	30	02/26/14	
4-Methyl-2-pentanone	11	5.0	ug/L	10		114	70-130	4	30	02/26/14	
Acetone	22	10	ug/L	10		221	70-130	0	30	02/26/14	BS High
Benzene	10	0.50	ug/L	10		104	70-130	3	30	02/26/14	
Bromobenzene	11	0.50	ug/L	10		109	70-130	2	30	02/26/14	
Bromochloromethane	10	0.50	ug/L	10		104	70-130	0	30	02/26/14	
Bromodichloromethane	9.8	0.50	ug/L	10		98	70-130	14	30	02/26/14	
Bromoform	11	0.50	ug/L	10		115	70-130	0	30	02/26/14	
Bromomethane	9.4	0.50	ug/L	10		94	70-130	1	30	02/26/14	
Carbon Tetrachloride	11	0.50	ug/L	10		108	70-130	2	30	02/26/14	
Chlorobenzene	11	0.50	ug/L	10		110	70-130	3	30	02/26/14	
Chloroethane	10	0.50	ug/L	10		100	70-130	0	30	02/26/14	
Chloroform	11	0.50	ug/L	10		105	70-130	3	30	02/26/14	
Chloromethane	9.1	0.50	ug/L	10		91	70-130	6	30	02/26/14	
cis-1,2-Dichloroethene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		112	70-130	2	30	02/26/14	
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130	0	30	02/26/14	
Dibromomethane	10	0.50	ug/L	10		101	70-130	12	30	02/26/14	
Dichlorodifluoromethane	10	0.50	ug/L	10		104	70-130	5	30	02/26/14	
Dichloromethane	11	0.50	ug/L	10		108	70-130	1	30	02/26/14	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		110	70-130	2	30	02/26/14	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		112	70-130	1	30	02/26/14	
Ethylbenzene	11	0.50	ug/L	10		108	70-130	4	30	02/26/14	
Hexachlorobutadiene	11	0.50	ug/L	10		108	70-130	4	30	02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402390-BSD1)

Isopropylbenzene	11	0.50	ug/L	10		107	70-130	4	30	02/26/14	
m,p-Xylenes	20	0.50	ug/L	20		99	70-130	4	30	02/26/14	
Methyl-t-butyl ether	22	0.50	ug/L	20		109	70-130	1	30	02/26/14	
Naphthalene	11	0.50	ug/L	10		111	70-130	2	30	02/26/14	
n-Butylbenzene	11	0.50	ug/L	10		107	70-130	4	30	02/26/14	
n-Propylbenzene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
o-Xylene	11	0.50	ug/L	10		106	70-130	2	30	02/26/14	
p-Isopropyltoluene	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
sec-Butylbenzene	11	0.50	ug/L	10		107	70-130	3	30	02/26/14	
Styrene	14	0.50	ug/L	10		140	70-130	9	30	02/26/14	BS High
tert-Amyl Methyl Ether (TAME)	11	3.0	ug/L	10		115	70-130	4	30	02/26/14	
tert-Butyl alcohol (TBA)	10	2.0	ug/L	10		105	70-130	2	30	02/26/14	
tert-Butylbenzene	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
Tetrachloroethene (PCE)	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
Toluene	11	0.50	ug/L	10		110	70-130	4	30	02/26/14	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		112	70-130	2	30	02/26/14	
Trichloroethene (TCE)	11	0.50	ug/L	10		108	70-130	14	30	02/26/14	
Trichlorofluoromethane	11	5.0	ug/L	10		109	70-130	2	30	02/26/14	
Vinyl Chloride	10	0.50	ug/L	10		104	70-130	4	30	02/26/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		100	70-130			02/26/14	
Surrogate: Bromofluorobenzene	50			50		101	70-130			02/26/14	

EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank (A402368-BLK1)

Alachlor	ND	1.0	ug/L							02/26/14	
Atrazine	ND	0.50	ug/L							02/26/14	
Benzo(a)pyrene	ND	0.10	ug/L							02/26/14	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							02/26/14	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							02/26/14	
Bromacil	ND	10	ug/L							02/26/14	
Butachlor	ND	0.38	ug/L							02/26/14	
Diazinon	ND	0.25	ug/L							02/26/14	
Dimethoate	ND	10	ug/L							02/26/14	
Metolachlor	ND	0.50	ug/L							02/26/14	
Metribuzin	ND	0.50	ug/L							02/26/14	
Molinate	ND	2.0	ug/L							02/26/14	
Propachlor	ND	0.50	ug/L							02/26/14	
Simazine	ND	1.0	ug/L							02/26/14	
Thiobencarb	ND	1.0	ug/L							02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	6.0			5.0		119	70-130			02/26/14	

Blank Spike (A402368-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A402368-BS1)

Alachlor	0.60	1.0	ug/L	0.50		119	70-130			02/26/14	
Atrazine	0.55	0.50	ug/L	0.50		111	70-130			02/26/14	
Benzo(a)pyrene	0.12	0.10	ug/L	0.10		119	70-130			02/26/14	
Bis(2-ethylhexyl) adipate	3.6	3.0	ug/L	3.0		120	70-130			02/26/14	
Bis(2-ethylhexyl) phthalate	4.3	3.0	ug/L	3.0		142	70-130			02/26/14	BS High
Bromacil	2.6	10	ug/L	2.0		132	70-130			02/26/14	BS High
Butachlor	1.4	0.38	ug/L	1.2		110	70-130			02/26/14	
Diazinon	0.038	0.25	ug/L	0.050		76	70-130			02/26/14	
Dimethoate	0.35	10	ug/L	0.50		71	70-130			02/26/14	
Metolachlor	3.3	0.50	ug/L	2.5		131	70-130			02/26/14	BS High
Metribuzin	3.0	0.50	ug/L	2.5		120	70-130			02/26/14	
Molinate	2.9	2.0	ug/L	2.5		117	70-130			02/26/14	
Propachlor	2.9	0.50	ug/L	2.5		117	70-130			02/26/14	
Simazine	0.40	1.0	ug/L	0.35		116	70-130			02/26/14	
Thiobencarb	0.59	1.0	ug/L	0.50		119	70-130			02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.5			5.0		109	70-130			02/26/14	

Blank Spike Dup (A402368-BSD1)

Alachlor	0.58	1.0	ug/L	0.49		118	70-130	3	30	02/26/14	
Atrazine	0.53	0.50	ug/L	0.49		107	70-130	5	30	02/26/14	
Benzo(a)pyrene	0.11	0.10	ug/L	0.098		116	70-130	4	30	02/26/14	
Bis(2-ethylhexyl) adipate	3.6	3.0	ug/L	2.9		122	70-130	0	30	02/26/14	
Bis(2-ethylhexyl) phthalate	4.1	3.0	ug/L	2.9		140	70-130	3	30	02/26/14	BS High
Bromacil	2.6	10	ug/L	2.0		132	70-130	2	30	02/26/14	BS High
Butachlor	1.4	0.38	ug/L	1.2		111	70-130	1	30	02/26/14	
Diazinon	0.040	0.25	ug/L	0.049		82	70-130	6	30	02/26/14	
Dimethoate	0.34	10	ug/L	0.49		70	70-130	3	30	02/26/14	
Metolachlor	3.2	0.50	ug/L	2.5		132	70-130	1	30	02/26/14	BS High
Metribuzin	3.0	0.50	ug/L	2.5		121	70-130	1	30	02/26/14	
Molinate	2.7	2.0	ug/L	2.5		109	70-130	9	30	02/26/14	
Propachlor	2.7	0.50	ug/L	2.5		109	70-130	8	30	02/26/14	
Simazine	0.37	1.0	ug/L	0.34		108	70-130	9	30	02/26/14	
Thiobencarb	0.57	1.0	ug/L	0.49		116	70-130	3	30	02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			4.9		101	70-130			02/26/14	

Matrix Spike (A402368-MS1), Source: A4B1490-02

Alachlor	0.54	1.0	ug/L	0.49	ND	110	70-130			02/26/14	
Atrazine	0.52	0.50	ug/L	0.49	ND	105	70-130			02/26/14	
Benzo(a)pyrene	0.13	0.10	ug/L	0.099	ND	134	70-130			02/26/14	MS1.0 High
Bis(2-ethylhexyl) adipate	3.7	3.0	ug/L	3.0	ND	124	70-130			02/26/14	
Bis(2-ethylhexyl) phthalate	4.4	3.0	ug/L	3.0	ND	129	70-130			02/26/14	
Bromacil	2.5	10	ug/L	2.0	ND	126	70-130			02/26/14	
Butachlor	1.3	0.38	ug/L	1.2	ND	106	70-130			02/26/14	
Diazinon	0.056	0.25	ug/L	0.049	ND	114	70-130			02/26/14	
Dimethoate	0.32	10	ug/L	0.49	ND	64	70-130			02/26/14	MS1.0 Low
Metolachlor	2.9	0.50	ug/L	2.5	ND	119	70-130			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Matrix Spike (A402368-MS1), Source: A4B1490-02

Metribuzin	2.6	0.50	ug/L	2.5	ND	104	70-130			02/26/14	
Molinate	2.7	2.0	ug/L	2.5	ND	110	70-130			02/26/14	
Propachlor	2.6	0.50	ug/L	2.5	ND	107	70-130			02/26/14	
Simazine	0.38	1.0	ug/L	0.35	ND	109	70-130			02/26/14	
Thiobencarb	0.57	1.0	ug/L	0.49	ND	116	70-130			02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.2			4.9		106	70-130			02/26/14	

EPA 531.1 - Quality Control

Batch: A402388

Prepared: 02/25/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank (A402388-BLK1)

3-Hydroxycarbofuran	ND	2.0	ug/L							02/25/14	
Aldicarb	ND	2.0	ug/L							02/25/14	
Aldicarb Sulfone	ND	2.0	ug/L							02/25/14	
Aldicarb Sulfoxide	ND	2.0	ug/L							02/25/14	
Carbaryl	ND	2.0	ug/L							02/25/14	
Carbofuran	ND	2.0	ug/L							02/25/14	
Methomyl	ND	2.0	ug/L							02/25/14	
Oxamyl	ND	2.0	ug/L							02/25/14	

Blank Spike (A402388-BS1)

3-Hydroxycarbofuran	4.2	2.0	ug/L	4.0		105	80-120			02/25/14	
Aldicarb	4.1	2.0	ug/L	4.0		103	80-120			02/25/14	
Aldicarb Sulfone	4.1	2.0	ug/L	4.0		103	80-120			02/25/14	
Aldicarb Sulfoxide	4.1	2.0	ug/L	4.0		104	80-120			02/25/14	
Carbaryl	4.2	2.0	ug/L	4.0		104	80-120			02/25/14	
Carbofuran	4.1	2.0	ug/L	4.0		102	80-120			02/25/14	
Methomyl	4.1	2.0	ug/L	4.0		103	80-120			02/25/14	
Oxamyl	4.1	2.0	ug/L	4.0		102	80-120			02/25/14	

Blank Spike Dup (A402388-BSD1)

3-Hydroxycarbofuran	4.1	2.0	ug/L	4.0		103	80-120	1	20	02/26/14	
Aldicarb	4.1	2.0	ug/L	4.0		102	80-120	1	20	02/26/14	
Aldicarb Sulfone	4.2	2.0	ug/L	4.0		106	80-120	3	20	02/26/14	
Aldicarb Sulfoxide	4.2	2.0	ug/L	4.0		105	80-120	1	20	02/26/14	
Carbaryl	4.1	2.0	ug/L	4.0		101	80-120	3	20	02/26/14	
Carbofuran	4.1	2.0	ug/L	4.0		103	80-120	2	20	02/26/14	
Methomyl	4.3	2.0	ug/L	4.0		109	80-120	5	20	02/26/14	
Oxamyl	4.2	2.0	ug/L	4.0		104	80-120	2	20	02/26/14	

Matrix Spike (A402388-MS1), Source: A4B1177-01

3-Hydroxycarbofuran	3.3	2.0	ug/L	4.0	ND	82	65-135			02/26/14	
Aldicarb	3.1	2.0	ug/L	4.0	ND	72	65-135			02/26/14	
Aldicarb Sulfone	3.5	2.0	ug/L	4.0	ND	79	65-135			02/26/14	
Aldicarb Sulfoxide	3.5	2.0	ug/L	4.0	ND	87	65-135			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A402388

Prepared: 02/25/2014

Prep Method: EPA 531.1

Analyst: AAR

Matrix Spike (A402388-MS1), Source: A4B1177-01

Carbaryl	10	2.0	ug/L	4.0	8.8	31	65-135			02/26/14	MS1.0 Low
Carbofuran	3.3	2.0	ug/L	4.0	ND	83	65-135			02/26/14	
Methomyl	3.5	2.0	ug/L	4.0	ND	87	65-135			02/26/14	
Oxamyl	3.3	2.0	ug/L	4.0	ND	84	65-135			02/26/14	

EPA 547 - Quality Control

Batch: A402555

Prepared: 03/01/2014

Prep Method: EPA 547

Analyst: RJB

Blank (A402555-BLK1)

Glyphosate	ND	25	ug/L							03/01/14	
Surrogate: AMPA	95			100		95	70-130			03/01/14	

Blank Spike (A402555-BS1)

Glyphosate	100	25	ug/L	100		103	70-130			03/01/14	
Surrogate: AMPA	100			100		102	70-130			03/01/14	

Blank Spike Dup (A402555-BSD1)

Glyphosate	120	25	ug/L	100		116	70-130	12	30	03/01/14	
Surrogate: AMPA	97			100		97	70-130			03/01/14	

Matrix Spike (A402555-MS1), Source: A4B1780-01

Glyphosate	97	25	ug/L	100	ND	95	70-130			03/01/14	
Surrogate: AMPA	89			100		87	70-130			03/01/14	

Matrix Spike Dup (A402555-MSD1), Source: A4B1780-01

Glyphosate	93	25	ug/L	100	ND	91	70-130	4	30	03/01/14	
Surrogate: AMPA	86			100		84	70-130			03/01/14	

EPA 548.1 - Quality Control

Batch: A402387

Prepared: 02/25/2014

Prep Method: EPA 548.1

Analyst: KHH

Blank (A402387-BLK1)

Endothall	ND	45	ug/L							02/26/14	
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Blank Spike (A402387-BS1)

Endothall	17	45	ug/L	20		83	60-111			02/26/14	
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Blank Spike Dup (A402387-BSD1)

Endothall	15	45	ug/L	20		73	60-111	13	46	02/26/14	
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Matrix Spike (A402387-MS1), Source: A4B1489-04

Endothall	4.3	45	ug/L	20	ND	22	10-122			02/26/14	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 549.2 - Quality Control

Batch: A402367

Prepared: 02/25/2014

Prep Method: EPA 549.2

Analyst: PYA

Blank (A402367-BLK1)

Diquat ND 4.0 ug/L 02/28/14

Blank Spike (A402367-BS1)

Diquat 3.0 4.0 ug/L 4.0 76 70-130 02/28/14

Blank Spike Dup (A402367-BSD1)

Diquat 2.9 4.0 ug/L 4.0 72 70-130 6 30 02/28/14

Matrix Spike (A402367-MS1), Source: A4B1780-01

Diquat 2.2 4.0 ug/L 4.0 ND 54 70-130 02/28/14 MS1.0 **Low**

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of Oregon - NELAP	4021	State of Washington	C997
State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA

BSK is not accredited under the NELAC program for the following parameters:

A4B1813



Monterey Bay Analytical

Monte6227



02252014

Turnaround: Standard

Due Date: 03/04/2014

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
(559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

A4B1813
Monte6227

Appendix G
02/25/2014

5



TEMP: 1.0

* Required Fields

Client/Company Name *: Monterey Bay Analytical		Report Attention *: David Holland		Phone * #: (831)-357-6227 FAX * #: (831)-641-0734		ANALYSIS REQUESTED											
Address * 4 Justin Ct.		City * Monterey		State * CA										Zip * 93940		E-mail: 4MBAS@Sbcglobal.net	
Project Information: Cal Am				PO # Quote # 464		Carbon Copies: CDHS <input type="checkbox"/> Fresno Co <input type="checkbox"/> EPA <input type="checkbox"/> Merced Co <input type="checkbox"/> Tulare Co <input type="checkbox"/> Other:		EPA 504	EPA 515	EPA 524 inc MTBE	EPA 525	EPA 531	EPA 547	EPA 548	EPA 549		
How would you like your completed results sent? <input checked="" type="checkbox"/> E-Mail <input type="checkbox"/> Fax <input type="checkbox"/> FDD <input type="checkbox"/> Mail Only				QC Request <input checked="" type="checkbox"/> STD <input type="checkbox"/> Level II		Result Request ** Surcharge <input type="checkbox"/> STD <input checked="" type="checkbox"/> 5 Day** <input type="checkbox"/> 2 Day** <input type="checkbox"/> 1 Day**										Regulatory Compliance Electronic Data Transfer: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> System No. *	
Sampler Name Printed / Signature Nathan Reynolds		Matrix Types: RSW = Raw Surface Water CFW = Chlorinated Finished Water CWW = Chlorinated Waste Water BW = Bottled Water RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid															
Sample #	# Bottles	Sampled		Sample Description / Location *	Matrix *	Comments / Station Code											
		Date	Time														
1		2/21	13:10	CX-BIWQ Zone #3 (182-192 ft bgs)	RGW	12015	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
				5 day TAT please													
				Conductivity 47,000 uS/cm													
Relinquished by: (Signature and Printed Name) David Holland		Company MBAS		Date 2/24	Time 1600	Received by: (Signature and Print Name)		Company									
Relinquished by: (Signature and Printed Name)		Company		Date	Time	Received by: (Signature and Print Name)		Company									
Received for Lab by: (Signature and Printed Name) 				Date 2/25/10	Time 1000	Payment Received at Delivery:											
Shipping Method: CAO UPS GSO WALK-IN SJVC FEDEX OTHER				Cooling Method: (WET) BLUE NONE		Packing Material: BN											

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service/re-billing charges and interest calculated at 1 1/2 % per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collections, including attorneys' fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantities, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 3:00 pm will begin the next business day.



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info		Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$		Yes	No	NA	Were correct containers and preservatives received for the tests requested?		Yes	No	NA
		If samples were taken today, is there evidence that chilling has begun?		Yes	No	NA	Were there bubbles in the VOA vials? (Volatiles Only)		Yes	No	NA
		Did all bottles arrive unbroken and intact?		Yes	No		Was a sufficient amount of sample received?		Yes	No	
		Did all bottle labels agree with COC?		Yes	No		Do samples have a hold time <72 hours?		Yes	No	
		Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?		Yes	No	NA	Was PM notified of discrepancies? PM: _____ By/Time: _____		Yes	No	NA
		250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)		Checks	Passed?		1				
		Bacti Na ₂ S ₂ O ₃		—	—						
		None (P) ^{White Cap}		—	—						
		Cr6 Buffer (P) ^{Blue Cap}		pH 9-9.5	Y N						
		HNO ₃ (P) ^{Red Cap}		—	—						
		H ₂ SO ₄ (P) ^{Yellow Cap}		pH ≤ 2	Y N						
		NaOH (P) ^{Green Cap}		Cl, pH ≥ 12	Y N						
		NaOH + ZnAc (P)		pH ≥ 9	Y N						
		Dissolved Oxygen 300ml (g)		—	—						
		None (AG) 608/6081/8082, 625, 832/8321, 8151, 8270		—	—						
		H ₂ SO ₄ (AG) ^{Yellow Label} O&G, Diesel		—	—						
		Na ₂ S ₂ O ₃ 1 Liter (Brown P): 549		—	—		1C				
		Na ₂ S ₂ O ₃ (AG) ^{Blue Label} 547, 515, 525, 548		—	—		2C, 3A				
		Na ₂ S ₂ O ₃ (AG) ^{Blue Label} THMs 524.2 or 524.3		—	—						
		Na ₂ S ₂ O ₃ (CG) ^{Blue Label} 504, 505		—	—		7V				
		Na ₂ S ₂ O ₃ + MCAA (CG) ^{Orange Label} 531		pH = 3	Y N		1V				
		NH ₄ Cl (AG) ^{Purple Label} 552		—	—						
		EDA (AG) ^{Brown Label} DBPs		—	—						
		Ascorbic + Maleic (AG) ^{Lt Green Label} 524.3		—	—						
		HCL (CG): 524.2, BTEX, Gas, MTBE: 8260/824		—	—		3V				
		Buffer pH 4 (CG)		—	—						
		None (CG)		—	—						
		H ₃ PO ₄ (CG) ^{Salmon Label}		—	—						
		Other:									
		Asbestos 1Liter Plastic w/ Foil		—	—						
		Low Level Hg / Metals Double Baggie		—	—						
		Bottled Water		—	—						
		Clear Glass Jar: 250 / 500 / 1 Liter		—	—						
		Soil Tube Brass / Steel / Plastic		—	—						
		Tedlar Bag / Plastic Bag		—	—						
Split		Container	Preservative	Date/Time/Initials			Container	Preservative	Date/Time/Initials		
	S P						S P				
Comments	S P						S P				

*Ceres Analytical Laboratory, Inc.
4919 Windplay Dr., Suite 1
El Dorado Hills, CA 95762*

March 3, 2014

Ceres ID: 10265

Monterey Bay Analytical
Mr. David Holland
4 Justin Court, Ste. D
Monterey, CA 93940

Mr. Holland,

Enclosed please find the results for one aqueous sample received on February 25, 2014. This sample was analyzed for 2,3,7,8-TCDD by EPA 1613. Rush 5 day turn-around time was provided for this work.

This work was authorized under M.B.A.'s Project # 12015.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

The Sample Tracking Section includes all external and internal chain of custodies, laboratory bench sheets, and any special instructions received.

If you have any questions regarding this report, please feel free to contact me at (888)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

<u>Ceres Sample ID:</u>	<u>Sample ID</u>	<u>Date Received</u>	<u>Collection Date & Time</u>
10265-001	CX-B1WQ Zone #3 (182-192ft bags)	2/25/2014	2/21/2014 13:10

Section II: Data Summary

Sample ID: Method Blank								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-MB001	Date Received:	NA
Project:	12015		Sample Size:	1.000 L	QC Batch #:	1158	Date Extracted:	28-Feb-14
Date Collected:	NA				ZB-5 MS Analysis Date:	1-Mar-14		
Time Collected:	NA							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	2.15			<u>IS</u> ¹³ C-2,3,7,8-TCDD	103	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	109	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JMH			Reviewed by:	BS			

Sample ID: Ongoing Precision and Recovery								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-OPR001	Date Received:	NA
Project:	12015		Sample Size:	1.000 L	QC Batch #:	1158	Date Extracted:	28-Feb-14
Date Collected:	NA				ZB-5 MS Analysis Date:	1-Mar-14		
Time Collected:	NA							
Analyte	Conc. (ng/ml)	Limits^a	Qualifiers		Labeled Standards	Conc.	Limits^a	Qualifiers
2,3,7,8-TCDD	9.90	7.3-14.6			IS ¹³ C-2,3,7,8-TCDD	98.3	25-141	
					CRS ³⁷ Cl ₄ -2,3,7,8-TCDD	10.1	3.7-15.8	
					<i>a. Method acceptance criteria .</i>			
Analyst: JMH				Reviewed by: BS				

Sample ID: CX-B1WQ Zone #3 (182-192ft bags)							
Client Data			Sample Data		Laboratory Data		
Name: Monterey Bay Analytical			Matrix: Aqueous		Lab Sample ID: 10265-001		Date Received: 25-Feb-14
Project: 12015			Sample Size: 1.058 L		QC Batch #: 1158		Date Extracted: 28-Feb-14
Date Collected: 21-Feb-14					ZB-5 MS Analysis Date: 1-Mar-14		
Time Collected: 13:10							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c Qualifiers
2,3,7,8-TCDD	ND	2.44			<u>IS</u> ¹³ C-2,3,7,8-TCDD	89.8	31 - 137
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	91.3	42 - 164
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.		
Analyst: JMH				Reviewed by: BS			

Section VI: Sample Tracking

Ceres Analytical Laboratory, Inc.

4919 Windplay Dr. Suite 1
 El Dorado Hills, CA 95762
 Tel: (916)932-5011

Chain of Custody

Please Print in Pen

Ceres Use Only

Appendix G

Ceres Project ID: 10265
 Temperature: 1.4 °C

Reports and invoices will be delivered by email in .pdf format

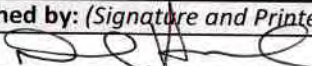
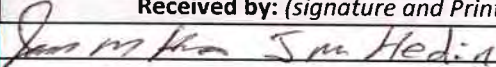
Client Information	Invoice Information (if different from Client Info)	Project Information
Company Name: <u>Monterey Bay Analytical</u> Contact Name: <u>David Holland</u> Address: <u>4 Justin Court Ste D Monterey CA 93940</u> Ph: <u>831-375-6227</u> Email: <u>montereybayanalytical@usa.net</u>	Company Name: <u>Same</u> Contact Name: _____ Address: _____ Ph: _____ Fx: _____ Email: _____	Ceres Quote #: _____ P.O. # _____ Project ID: _____ TAT (business days) _____ Std 15 days; Rush TAT available please call

Matrix abbreviations:

A: Aqueous S: Soil AS: Ash DW: Drinking Water
 E: Effluent SD: Sediment C: Clay SO: Solid
 I: Influent SL: Sludge CS: Clay Slurry O: Other (please comment)

	Sample ID	Sample Collection			Matrix	# of containers	EPA 1613	EPA 8290	NCASI 551	EPA 8280	EPA 613	Other	TEF	Comments
		Date	Time										<input type="checkbox"/> 1998 WHO <input type="checkbox"/> 2005 WHO <input type="checkbox"/> Other	
1	CX-B1WQ Zone #3 (182-192ft bags)	2/21/2014	13:10	Aq	2	X								12015
2														(2,3,7,8 TCDD only)
3														5 day Rush Please
4														
5														
6														
7														
8														
9														
10														
11														
12														

Samples will be disposed of 45 days after submission of report, unless other provisions have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (signature and Printed Name)	Date	Time
David Holland 	2/24/2014	16:00	 Sam Medina	2/25/14	10:55

Client understands that all terms described in the proposals, quotations, and/or the general terms and conditions of Ceres Analytical Laboratory will be followed.
 Ceres Analytical Laboratory reserves the right to terminate its service or withhold delivery of reports, if in Ceres' discretion the terms of the project have been broken.

Sample Receipt Check List

Ceres ID: 10265	Date/Time: 2/25/14 10:55
Client Project ID: 12015	Received Temperature: 1,4°C Acceptable: <input checked="" type="radio"/> Y / N
Chain of Custody Relinquished by signed?	<input checked="" type="radio"/> Y / N
Custody Seals? Present?	Y / N
Intact?	Y / N
NA:	<input checked="" type="radio"/> NA
Unlabeled / Illegible Samples	Y / <input checked="" type="radio"/> N
Proper Containers:	<input checked="" type="radio"/> Y / N
Preservation Acceptable (Chemical or Temperature)?	<input checked="" type="radio"/> Y / N
Drinking Water, Sodium Thiosulfate present? no residual Cl	Y / <input checked="" type="radio"/> N / NA
List COC discrepancies:	<i>2/25/14</i>
List Damaged Samples:	<i>2/25/14</i>

Ceres Analytical Laboratory

Process Request

Ceres ID: 10265 PB: 1158 Sample #s: 1 Due Date: 3/3/14

Matrix (circle one): Drinking Water Aqueous Effluent Influent Ash
 Solid Soil Sediment Sludge Clay/Clay Slurry Other: _____

Method (check one): 1613 2,3,7,8-TCDD 8290 2,3,7,8-TCDD
 1613 2,3,7,8-TCDD/F 8290 2,3,7,8-TCDD/F
 1613 Cl₄-Cl₈ 8290 Cl₄-Cl₈
 8280 2,3,7,8-TCDD NCASI 551
 8280 2,3,7,8-TCDD/F
 8280 Appendix IX
 8280 Cl₄-Cl₈

Instructions:

Sample Volume Calculation

Instructions:

1. Calibrate balance
2. Tare balance
3. Place Full sample bottle with cap on balance. Record weight as Sample+Bottle Wt.
4. Weigh empty bottle and cap. Record as Bottle Wt.
5. Calculate sample Volume (assuming 1g = 1ml) as follows:

$$\text{Sample Volume} = (\text{Sample} + \text{Bottle Wt}) - \text{Empty Bottle Wt.}$$

Ceres ID	Sample +Bottle Wt.	Empty Bottle Wt.	Sample Volume
10265-1	1568.37	506.44	1.062L

Chemist: _____

Date: 2/28/14

Method: 1613
 SOP #: 301.1

Ceres Analytical Laboratory
 Sample Prep Bench Sheet

Ceres ID	Client ID	Ver.	wt/vol	ISS/PAR		CSS		AP	AB/AC	FC	RSS	
				chem/date/witness	chem/date/witness	chem/date/witness	chem/date/witness					
0-1158-MB001	Method Blank		1.000 L	J 2/28/14 M	J 3/1/14 M	NA	J 3/1/14	NA	J 3/1/14 M			
0-1158-OPR001	OPR		1.0002	(A) ↓	↓	↓	↓	↓	↓	↓	↓	↓
10265-1158-001	CX-B1WQ Zone #3	✓	1.062 L	↓	↓	↓	↓	↓	↓	↓	↓	↓

Comments: (A) spiked w/ISS

Soxhlet Start: 14:00 2/28/14
 Soxhlet Stop: 06:33 3/1/14

Samples Logged out by: J 2/28/14 11:00
 Samples Returned by: NA
 Note samples Depleted: 1A

Sample Extracts Storage Location: Box 8
 Extracts to Instrument: 11:00 3/1/14 J
 Extracts returned to Storage Location: 08:00 3/3/14 J

Method: 1613
SOP #: 201.1

Ceres Analytical Laboratory

Sample Prep Bench Sheet

Standard	Standard ID	Vol.	Expiration Date
ISS	5021212A	10ml	3/12/14
NSS	5031212B	10ml	3/12/14
CSS	5031212C	10ml	3/12/14
RSS	5031212D	20ml	3/12/14

Solvents/Solutions/Packing Materials

Name	Amount	Lot #	Exp. Date
Toluene	450ml	PB0057A02AL	8/17/14
Hexane	20, 20, 100, 20	176735	6/10/14
Sigel	4g	P024514A	8/5/14
Basic Gel	4g	P012014A	7/20/14
Acid Gel	8g	P012014B	7/20/14
Acid Al	6g	P020414A	8/4/14
Na2SO4	1.5g	P120413A	6/4/14
20% Decyl Hex	20ml	L021914A	8/19/14

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*	Results taken from dilution.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery

CERTIFICATE OF ANALYSIS

Client: Monterey Bay Analytical Services 4 Justin Court, Suite D Monterey CA, 93940	Report Date: 03/04/14 21:16
Attention: David Holland	Received Date: 02/25/14 09:40
Phone: (831) 375-6227	Turn Around: 5 workdays
Fax: (831) 641-0734	Client Project: Cal Am
Work Order(s): 4B25018	

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear David Holland :

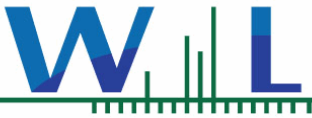
Enclosed are the results of analyses for samples received 02/25/14 09:40 with the Chain of Custody document. The samples were received in good condition, at 4.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager





Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

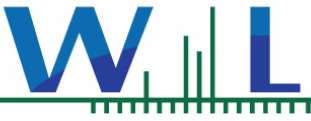
ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
CX-B1WQ Zone #3 (182-192 ft bgs)	Nathan Reynolds	12015	4B25018-01	Water	02/21/14 13:10

ANALYSES

Anions by IC, EPA Method 300.0/300.1/326

Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

4B25018-01 CX-B1WQ Zone #3 (182-192 ft bgs)

Sampled: 02/21/14 13:10

Sampled By: Nathan Reynolds

Matrix: Water

Sample Note: 12015

Anions by IC, EPA Method 300.0/300.1/326

Method: EPA 9056A

Batch: W4C0014

Prepared: 03/01/14 11:00

Analyst: atl

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Iodide	190	21	500	ug/l	50	03/01/14 18:00	M-05, J

Chlorinated Pesticides and/or PCBs

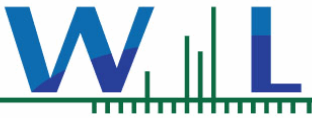
Method: EPA 508

Batch: W4B1139

Prepared: 02/26/14 08:25

Analyst: mxw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
4,4'-DDD	ND	0.010	ug/l	1	02/28/14 21:46	
4,4'-DDE	ND	0.010	ug/l	1	02/28/14 21:46	
4,4'-DDT	ND	0.010	ug/l	1	02/28/14 21:46	
Aldrin	ND	0.010	ug/l	1	02/28/14 21:46	
alpha-BHC	ND	0.010	ug/l	1	02/28/14 21:46	
Aroclor 1016	ND	0.10	ug/l	1	02/28/14 21:46	
Aroclor 1221	ND	0.10	ug/l	1	02/28/14 21:46	
Aroclor 1232	ND	0.10	ug/l	1	02/28/14 21:46	
Aroclor 1242	ND	0.10	ug/l	1	02/28/14 21:46	
Aroclor 1248	ND	0.10	ug/l	1	02/28/14 21:46	
Aroclor 1254	ND	0.10	ug/l	1	02/28/14 21:46	
Aroclor 1260	ND	0.10	ug/l	1	02/28/14 21:46	
beta-BHC	ND	0.010	ug/l	1	02/28/14 21:46	
Chlordane (tech)	ND	0.10	ug/l	1	02/28/14 21:46	
Chlorothalonil	ND	0.050	ug/l	1	02/28/14 21:46	
delta-BHC	ND	0.010	ug/l	1	02/28/14 21:46	
Dieldrin	ND	0.010	ug/l	1	02/28/14 21:46	
Endosulfan I	ND	0.010	ug/l	1	02/28/14 21:46	
Endosulfan II	ND	0.010	ug/l	1	02/28/14 21:46	
Endosulfan sulfate	ND	0.010	ug/l	1	02/28/14 21:46	
Endrin	ND	0.010	ug/l	1	02/28/14 21:46	
Endrin aldehyde	ND	0.010	ug/l	1	02/28/14 21:46	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	02/28/14 21:46	
Heptachlor	ND	0.010	ug/l	1	02/28/14 21:46	
Heptachlor epoxide	ND	0.010	ug/l	1	02/28/14 21:46	
Hexachlorobenzene	ND	0.010	ug/l	1	02/28/14 21:46	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	02/28/14 21:46	
Methoxychlor	ND	0.010	ug/l	1	02/28/14 21:46	
PCBs, Total	ND	0.50	ug/l	1	02/28/14 21:46	
Propachlor	ND	0.050	ug/l	1	02/28/14 21:46	
Toxaphene	ND	1.0	ug/l	1	02/28/14 21:46	
Trifluralin	ND	0.010	ug/l	1	02/28/14 21:46	
Surr: Decachlorobiphenyl	16 %	Conc:0.0149	70-130	%		S-GC
Surr: Tetrachloro-meta-xylene	79 %	Conc:0.0753	70-130	%		



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

4B25018-01 CX-B1WQ Zone #3 (182-192 ft bgs)

Sampled: 02/21/14 13:10

Sampled By: Nathan Reynolds

Matrix: Water

Sample Note: 12015

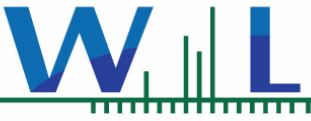
Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

QUALITY CONTROL SECTION



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

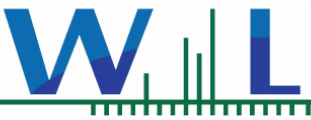
Batch W4C0014 - EPA 9056A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4C0014-BLK1)				Analyzed: 03/01/14 18:00						
Iodide	ND	10	ug/l							
LCS (W4C0014-BS1)				Analyzed: 03/01/14 18:00						
Iodide	45.0	10	ug/l	40.0		113	85-115			
Matrix Spike (W4C0014-MS1)				Source: 4B25020-01 Analyzed: 03/01/14 18:00						
Iodide	836	250	ug/l	1000	161	68	80-120			MS-01
Matrix Spike Dup (W4C0014-MSD1)				Source: 4B25020-01 Analyzed: 03/01/14 18:00						
Iodide	984	250	ug/l	1000	161	82	80-120	16	20	

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B1139 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B1139-BLK1)				Analyzed: 02/28/14 16:10						
4,4'-DDD	ND	0.010	ug/l							
4,4'-DDE	ND	0.010	ug/l							
4,4'-DDT	ND	0.010	ug/l							
Aldrin	ND	0.010	ug/l							
alpha-BHC	ND	0.010	ug/l							
Aroclor 1016	ND	0.10	ug/l							
Aroclor 1221	ND	0.10	ug/l							
Aroclor 1232	ND	0.10	ug/l							
Aroclor 1242	ND	0.10	ug/l							
Aroclor 1248	ND	0.10	ug/l							
Aroclor 1254	ND	0.10	ug/l							
Aroclor 1260	ND	0.10	ug/l							
beta-BHC	ND	0.010	ug/l							
Chlordane (tech)	ND	0.10	ug/l							
Chlorothalonil	ND	0.050	ug/l							
delta-BHC	ND	0.010	ug/l							
Dieldrin	ND	0.010	ug/l							
Endosulfan I	ND	0.010	ug/l							
Endosulfan II	ND	0.010	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							
Endrin	ND	0.010	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.010	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.010	ug/l							
Hexachlorobenzene	ND	0.010	ug/l							
Hexachlorocyclopentadiene	ND	0.050	ug/l							
Methoxychlor	ND	0.010	ug/l							
PCBs, Total	ND	0.50	ug/l							



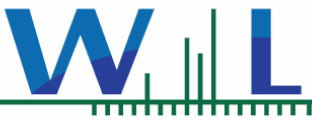
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B1139 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B1139-BLK1)										
Analyzed: 02/28/14 16:10										
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
<i>Surr: Decachlorobiphenyl</i>	0.0947		ug/l	0.100		95	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0904		ug/l	0.100		90	70-130			
LCS (W4B1139-BS1)										
Analyzed: 02/28/14 17:42										
4,4'-DDD	0.0801	0.010	ug/l	0.100		80	55-142			
4,4'-DDE	0.0848	0.010	ug/l	0.100		85	49-129			
4,4'-DDT	0.0979	0.010	ug/l	0.100		98	54-160			
Aldrin	0.0759	0.010	ug/l	0.100		76	29-115			
alpha-BHC	0.0802	0.010	ug/l	0.100		80	59-131			
beta-BHC	0.0789	0.010	ug/l	0.100		79	63-136			
delta-BHC	0.0881	0.010	ug/l	0.100		88	59-137			
Dieldrin	0.0832	0.010	ug/l	0.100		83	59-135			
Endosulfan I	0.0689	0.010	ug/l	0.100		69	28-138			
Endosulfan II	0.0754	0.010	ug/l	0.100		75	53-133			
Endosulfan sulfate	0.0877	0.010	ug/l	0.100		88	58-155			
Endrin	0.0585	0.010	ug/l	0.100		59	57-148			
Endrin aldehyde	0.0597	0.010	ug/l	0.100		60	45-139			
gamma-BHC (Lindane)	0.0802	0.010	ug/l	0.100		80	59-129			
Heptachlor	0.0817	0.010	ug/l	0.100		82	42-136			
Heptachlor epoxide	0.0809	0.010	ug/l	0.100		81	59-134			
Methoxychlor	0.0870	0.010	ug/l	0.100		87	56-167			
<i>Surr: Decachlorobiphenyl</i>	0.0903		ug/l	0.100		90	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0827		ug/l	0.100		83	70-130			
LCS Dup (W4B1139-BSD1)										
Analyzed: 02/28/14 17:11										
4,4'-DDD	0.0789	0.010	ug/l	0.100		79	55-142	2	25	
4,4'-DDE	0.0850	0.010	ug/l	0.100		85	49-129	0.2	25	
4,4'-DDT	0.0947	0.010	ug/l	0.100		95	54-160	3	25	
Aldrin	0.0777	0.010	ug/l	0.100		78	29-115	2	25	
alpha-BHC	0.0813	0.010	ug/l	0.100		81	59-131	1	25	
beta-BHC	0.0799	0.010	ug/l	0.100		80	63-136	1	25	
delta-BHC	0.0883	0.010	ug/l	0.100		88	59-137	0.3	25	
Dieldrin	0.0844	0.010	ug/l	0.100		84	59-135	1	25	
Endosulfan I	0.0700	0.010	ug/l	0.100		70	28-138	2	25	
Endosulfan II	0.0756	0.010	ug/l	0.100		76	53-133	0.3	25	
Endosulfan sulfate	0.0871	0.010	ug/l	0.100		87	58-155	0.7	25	
Endrin	0.0740	0.010	ug/l	0.100		74	57-148	23	25	
Endrin aldehyde	0.0748	0.010	ug/l	0.100		75	45-139	22	25	
gamma-BHC (Lindane)	0.0813	0.010	ug/l	0.100		81	59-129	1	25	
Heptachlor	0.0828	0.010	ug/l	0.100		83	42-136	1	25	
Heptachlor epoxide	0.0816	0.010	ug/l	0.100		82	59-134	0.8	25	
Methoxychlor	0.0835	0.010	ug/l	0.100		84	56-167	4	25	
<i>Surr: Decachlorobiphenyl</i>	0.172		ug/l	0.200		86	70-130			

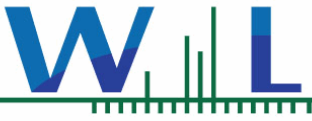


Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

Chlorinated Pesticides and/or PCBs - Quality Control**Batch W4B1139 - EPA 508**

Analyte	Reporting Result	Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W4B1139-BSD1)				Analyzed: 02/28/14 17:11						
<i>Surr: Tetrachloro-meta-xylene</i>	0.161		ug/l	0.200		81	70-130			



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

Notes and Definitions

S-GC	Surrogate recovery outside of control limits due to a possible matrix effect . The data was accepted based on valid recovery of the remaining surrogate.
MS-01	The spike recovery for this QC sample is outside of established control limits possibly due to sample matrix interference.
M-05	Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
J	Estimated conc. detected <MRL and >MDL.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1402896

Report Created for: Monterey Bay Analytical
4 Justin Court, Suite D
Monterey, CA 93940

Project Contact: David Holland
Project P.O.:
Project Name: CalAm

Project Received: 02/26/2014

Analytical Report reviewed & approved for release on 02/28/2014 by:

Question about
your data?

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: CalAm

WorkOrder: 1402896

Glossary

Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical

Qualifier

a1 sample diluted due to matrix interference



McC Campbell Analytical, Inc.
 "When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #2 (237-247 ft bgs) (dissol	1402896-002A	Water/DISS.	02/19/2014 16:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	210	100	20	02/27/2014 19:31
Strontium	11,000	400	20	02/27/2014 19:31

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #3 (182-192 ft bgs) (dissol	1402896-004A	Water/DISS.	02/21/2014 13:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	ND	100	20	02/27/2014 14:48
Strontium	12,000	400	20	02/27/2014 14:48

Analytical Comments: a1

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #4 (134-144 ft bgs) (dissol	1402896-006A	Water/DISS.	02/22/2014 14:45	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	120	100	20	02/27/2014 19:37
Strontium	9400	400	20	02/27/2014 19:37

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #5 (84-94 ft bgs) (dissolve	1402896-008A	Water/DISS.	02/23/2014 16:20	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	ND	100	20	02/27/2014 19:43
Strontium	10,000	400	20	02/27/2014 19:43

Analytical Comments: a1

(Cont.)



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 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: Monterey Bay Analytical

WorkOrder: 1402896

Project: CalAm

Extraction Method: E200.8

Date Received: 2/26/14 11:35

Analytical Method: E200.8

Date Prepared: 2/26/14

Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #6 (51-61 ft bgs) (dissolve	1402896-010A	Water/DISS.	02/25/2014 09:10	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Barium	100		100	20	02/27/2014 19:48
Strontium	9500		400	20	02/27/2014 19:48



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 http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #2 (237-247 ft bgs)	1402896-001A	Water/TOTAL	02/19/2014 16:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	1000	20	02/27/2014 15:23
Arsenic	ND	10	20	02/27/2014 15:23
Copper	ND	10	20	02/27/2014 15:23
Lithium	120	100	20	02/27/2014 15:23
Zinc	ND	100	20	02/27/2014 15:23
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	104	70-130	02/27/2014 15:23	

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #3 (182-192 ft bgs)	1402896-003A	Water/TOTAL	02/21/2014 13:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	1000	20	02/27/2014 15:28
Arsenic	ND	10	20	02/27/2014 15:28
Copper	ND	10	20	02/27/2014 15:28
Lithium	140	100	20	02/27/2014 15:28
Zinc	ND	100	20	02/27/2014 15:28
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	111	70-130	02/27/2014 15:28	

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #4 (134-144 ft bgs)	1402896-005A	Water/TOTAL	02/22/2014 14:45	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	1000	20	02/27/2014 15:34
Arsenic	ND	10	20	02/27/2014 15:34
Copper	ND	10	20	02/27/2014 15:34
Lithium	120	100	20	02/27/2014 15:34
Zinc	ND	100	20	02/27/2014 15:34
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	104	70-130	02/27/2014 15:34	

(Cont.)



McCampbell Analytical, Inc.
 "When Quality Counts"

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 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #5 (84-94 ft bgs)	1402896-007A	Water/TOTAL	02/23/2014 16:20	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aluminum	ND		1000	20	02/27/2014 15:40
Arsenic	ND		10	20	02/27/2014 15:40
Copper	ND		10	20	02/27/2014 15:40
Lithium	170		100	20	02/27/2014 15:40
Zinc	ND		100	20	02/27/2014 15:40
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	109		70-130		02/27/2014 15:40
CX-BIWQ Zone #6 (51-61 ft bgs)	1402896-009A	Water/TOTAL	02/25/2014 09:10	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aluminum	ND		1000	20	02/27/2014 15:45
Arsenic	ND		10	20	02/27/2014 15:45
Copper	ND		10	20	02/27/2014 15:45
Lithium	140		100	20	02/27/2014 15:45
Zinc	ND		100	20	02/27/2014 15:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	110		70-130		02/27/2014 15:45



Quality Control Report

Client: Monterey Bay Analytical
Date Prepared: 2/26/14
Date Analyzed: 2/27/14
Instrument: ICP-MS1
Matrix: Water
Project: CalAm

WorkOrder: 1402896
BatchID: 87508
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L
Sample ID: MB/LCS-87508
 1402903-004CMS/MSD

QC Summary Report for E200.8

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aluminum	ND	475.4	50	500	-	95.1	85-115
Arsenic	ND	46.74	0.50	50	-	93.5	85-115
Barium	ND	451.9	5.0	500	-	90.4	85-115
Copper	ND	48.31	0.50	50	-	96.6	85-115
Lithium	ND	47.95	5.0	50	-	95.9	85-115
Strontium	ND	496	20	500	-	99.2	85-115
Zinc	ND	489.9	5.0	500	-	98	85-115

Surrogate Recovery

Tb 350.917	695.7	710.9		750	93	95	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aluminum	1373	1438	500	863.6	102	115	70-130	4.62	20
Arsenic	47.91	48.87	50	0.84	94.1	96.1	70-130	1.98	20
Barium	473.2	485.6	500	18	91	93.5	70-130	2.59	20
Copper	60.61	62.62	50	13.01	95.2	99.2	70-130	3.26	20
Lithium	49.57	51.07	50	ND	99.1	102	70-130	2.98	20
Strontium	532.9	553	500	36	99.4	103	70-130	3.70	20
Zinc	632.5	641.6	500	118.4	103	105	70-130	1.43	20

Surrogate Recovery

Tb 350.917	712.5	731	750		95	97	70-130	2.56	20
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McCampbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1402896

ClientCode: MBAS

- WaterTrax
 WriteOn
 EDF
 Excel
 EQuIS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

David Holland
Monterey Bay Analytical
4 Justin Court, Suite D
Monterey, CA 93940
831-375-6227 FAX: 831-641-0734

Email: 4mbas@sbcglobal.net
cc:
PO:
ProjectNo: CalAm

Bill to:

Accounts Payable
Monterey Bay Analytical
4 Justin Court, Suite D
Monterey, CA 93940

Requested TAT:

3 days

Date Received: 02/26/2014

Date Printed: 02/26/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1402896-001	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	2/19/2014 16:10	<input type="checkbox"/>		A											
1402896-002	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	2/19/2014 16:10	<input type="checkbox"/>	A												
1402896-003	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	2/21/2014 13:10	<input type="checkbox"/>		A											
1402896-004	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	2/21/2014 13:10	<input type="checkbox"/>	A												
1402896-005	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	2/22/2014 14:45	<input type="checkbox"/>		A											
1402896-006	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	2/22/2014 14:45	<input type="checkbox"/>	A												
1402896-007	CX-BIWQ Zone #5 (84-94 ft bgs)	Water	2/23/2014 16:20	<input type="checkbox"/>		A											
1402896-008	CX-BIWQ Zone #5 (84-94 ft bgs) (dissolved)	Water	2/23/2014 16:20	<input type="checkbox"/>	A												
1402896-009	CX-BIWQ Zone #6 (51-61 ft bgs)	Water	2/25/2014 9:10	<input type="checkbox"/>		A											
1402896-010	CX-BIWQ Zone #6 (51-61 ft bgs) (dissolved)	Water	2/25/2014 9:10	<input type="checkbox"/>	A												

Test Legend:

1	METALSMS_DISS	2	METALSMS_W	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Jena Alfaro

Comments: Needs analysts initials for all reports per D.H. 4/5/13

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: MONTEREY BAY ANALYTICAL

QC Level: LEVEL 2

Work Order: 1402896

Project: CalAm

Client Contact: David Holland

Date Received: 2/26/2014

Comments: Needs analysts initials for all reports per D.H. 4/5/13

Contact's Email: 4mbas@sbcglobal.net

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1402896-001A	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/19/2014 16:10	3 days	None	<input type="checkbox"/>	
1402896-002A	CX-BIWQ Zone #2 (237-247 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/19/2014 16:10	3 days	None	<input type="checkbox"/>	
1402896-003A	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/21/2014 13:10	3 days	None	<input type="checkbox"/>	
1402896-004A	CX-BIWQ Zone #3 (182-192 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/21/2014 13:10	3 days	None	<input type="checkbox"/>	
1402896-005A	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/22/2014 14:45	3 days	None	<input type="checkbox"/>	
1402896-006A	CX-BIWQ Zone #4 (134-144 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/22/2014 14:45	3 days	None	<input type="checkbox"/>	
1402896-007A	CX-BIWQ Zone #5 (84-94 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/23/2014 16:20	3 days	None	<input type="checkbox"/>	
1402896-008A	CX-BIWQ Zone #5 (84-94 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/23/2014 16:20	3 days	None	<input type="checkbox"/>	
1402896-009A	CX-BIWQ Zone #6 (51-61 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/25/2014 9:10	3 days	None	<input type="checkbox"/>	
1402896-010A	CX-BIWQ Zone #6 (51-61 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/25/2014 9:10	3 days	None	<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

125mL HDPE w/ HNO3 = 125mL HDPE Bottle w/ Nitric Acid

250mL HDPE w/ HNO3 = 250mL HDPE Bottle w/ HNO3

1402896

McCAMPBELL ANALYTICAL, INC

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com

Telephone: (877) 252-9262

Fax: (925) 252-9269

RUSH

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

GeoTracker EDF PDF Excel Write On (DW)

Report To: David Holland Bill To:
Company: Monterey Bay Analytical Services
4 Justin Ct. Suite D
Monterey, Ca 93940 E-Mail: 4mbas@sbcglobal.net
Tele: (831) 375 - 6227 Fax: (831) 641-0734
Project #: Project Name: CalAm
Project Location:
Sampler Signature: Nathan Reynolds

Analysis Request Other Comments

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Analysis Request	Other	Comments
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other			
	CX-BIWQ Zone #2 (237-247 ft bgs)	2/19/14	16:10	1	p	X					X	X				X	11965
	CX-BIWQ Zone #2 (237-247 ft bgs) (dissolved)	2/19/14	16:10	1	p	X					X	X				X	11965 (dissolved)
	CX-BIWQ Zone #3 (182-192 ft bgs)	2/21/14	13:10	1	p	X					X	X				X	12015
	CX-BIWQ Zone #3 (182-192 ft bgs) (dissolved)	2/21/14	13:10	1	p	X					X	X				X	12015 (dissolved)
	CX-BIWQ Zone #4 (134-144 ft bgs)	2/22/14	14:45	1	p	X					X	X				X	12029
	CX-BIWQ Zone #4 (134-144 ft bgs) (dissolved)	2/22/14	14:45	1	p	X					X	X				X	12029 (dissolved)
	CX-BIWQ Zone #5 (84-94 ft bgs)	2/23/14	16:20	1	P	X					X	X				X	12030
	CX-BIWQ Zone #5 (84-94 ft bgs) (dissolved)	2/23/14	16:20	1	P	X					X	X				X	12030 (dissolved)
	CX-BIWQ Zone #6 (51-61 ft bgs)	2/25/14	09:10	1	p	X					X	X				X	12148
	CX-BIWQ Zone #6 (51-61 ft bgs) (Dissolved)	2/25/14	09:10	1	p	X					X	X				X	12148 (dissolved)

REC'D SEALED & INTACT VIA UPS *Onfile*

Relinquished By: David Holland Date: 2/25/14 Time: 1200 Received By: *[Signature]* 2/26/14 9:15
Relinquished By: Date: Time: Received By: G-170

COMMENTS: The sample conductivity ranges from 25,000 uS/cm to 40,000 uS/cm



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical** Date and Time Received: **2/26/2014 11:35:12 AM**
 Project Name: **CalAm** LogIn Reviewed by: **Jena Alfaro**
 WorkOrder N°: **1402896** Matrix: Water Carrier: UPS

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

* NOTE: If the "No" box is checked, see comments below.

 Comments:

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

pH QC Summary (SM 4500 H+)

Date Analyzed: 2/21/2014

	Value (pH Units)	Result (pH Units)	% Rec	Acceptance Criteria %Rec
IPC	6.86	6.86	100.0	95-105

Sample ID	Sample (pH Units)	Sample Dup (pH Units)	% RPD	Acceptance Criteria % RPD
AB12021	7.0	7.0	0.0	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Turbidity QC Summary (EPA 180.1)

Date Analyzed: 2/21/2014

	Value (NTU)	Result (NTU)	% Rec	Acceptance Criteria %Rec
IPC	1.00	1.05	105.0	95-105

Sample ID	Sample (NTU)	Sample Dup (NTU)	% RPD	Acceptance Criteria % RPD
AB12015	0.74	0.69	7.5	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

300.0 QC Summary

All units expressed in mg/L

	F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
	2	20	2	20	2	2	2
IPC	1.99	20.09	2.12	19.60	2.09	2.00	1.91
Recovery 90-110%	99.51	100.43	106.17	98.01	104.71	100.14	95.56
CCV1	1.97	20.92	2.03	19.43	2.03	1.96	1.71
Recovery 90-110%	98.69	104.61	101.34	97.13	101.26	98.09	85.25
RPD 10%	0.82	4.07	4.66	0.90	3.35	2.06	11.40
CCV2	1.98	19.93	2.11	19.44	2.06	1.98	1.80
Recovery 90-110%	99.05	99.67	105.32	97.18	103.13	98.76	89.86
RPD 10%	0.46	0.76	0.80	0.85	1.52	1.38	6.15
	F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
	2	20	2	20	2	2	2
AB12018	0.00	10605.35	0.00	1411.32	34.01	9.38	0.03
AB12018+LFM	1.40	10697.24	0.07	1443.73	34.15	11.33	0.29
AB12018+LFMD	1.39	10782.09	0.00	1447.52	34.98	11.51	0.07
Average	1.40	10739.66	0.03	1445.62	34.56	11.42	0.18
Recovery 80-120%	69.87	671.58	1.66	171.52	27.90	102.00	7.64
RPD 10%	0.71	0.79	200.00	0.26	2.40	1.57	118.84

Batch # 20140225

Analyte/ WL	Range	IC Blank	Prep Blank	LCS Value	%Rec 85-115%	LCSD Value	%Rec 85-115%	%Diff	IC Verification			QCS (95-105%)		
									Value	Result	%Rec	Value	Result	%Rec
B 249.678	0.05-5ppm	0.00	0.00	1.03	103.3%	1.04	104.1%	0.7%	1	1.01	100.8%	1	0.99	99.3%
B 249.772	0.05-5ppm	0.00	0.00	1.03	102.7%	1.04	103.9%	1.2%	1	1.00	99.5%	1	0.99	99.1%
Ca 317.933	50-300ppm	-4.32	-4.33	49.6	99.3%	50.9	101.7%	2.4%	50	49.1	98.3%	50	48.7	97.4%
Ca 396.847	0.5-50ppm	-0.23	-0.24	50.1	100.3%	51.1	102.3%	2.0%	50	49.7	99.5%	50	49.5	99.1%
Cu 324.754	10ppb-100ppm	-7.83	-9.32	1008	100.8%	1031	103.1%	2.3%	1000	989	98.9%	1000	1002	100.2%
Cu 327.395	10ppb-100ppm	-3.71	-2.81	1018	101.8%	1037	103.7%	1.8%	1000	989	98.9%	1000	1005	100.5%
Fe 238.204	10ppb-100ppm	-0.01	0.65	998	99.8%	1008	100.8%	1.1%	1000	985	98.5%	1000	980	98.0%
Fe 259.940	10ppb-100ppm	-1.92	-2.32	1008	100.8%	1025	102.5%	1.6%	1000	992	99.2%	1000	995	99.5%
K 766.491	0.5-750ppm	0.06	0.04	9.9	99.2%	10.2	101.9%	2.7%	10	9.9	98.6%	10	9.9	98.9%
Mg 202.582	50-1000ppm	-1.92	-1.95	51.3	102.7%	51.9	103.8%	1.1%	50	50.1	100.3%	50	50.2	100.3%
Mg 279.078	0.5-50ppm	0.04	0.01	50.3	100.5%	50.8	101.6%	1.1%	50	49.3	98.7%	50	49.1	98.2%
Mn 257.610	10ppb-11ppm	-6.24	-6.61	1005	100.5%	1021	102.1%	1.5%	1000	988	98.8%	1000	978	97.8%
Mn 260.568	10ppb-11ppm	-6.06	-6.71	1006	100.6%	1015	101.5%	0.9%	1000	986	98.6%	1000	974	97.4%
Na 568.821	50-1000ppm	8.44	6.58	51.4	102.7%	54.1	108.1%	5.1%	50	50.7	101.3%	50	51.1	102.2%
Na 589.592	0.5-50ppm	0.11	0.04	49.9	99.9%	51.4	102.8%	2.9%	50	49.7	99.4%	50	49.6	99.1%
Si 251.611	0.5-200ppm	0.03	-0.03	51.1	102.3%	51.4	102.7%	0.4%	50	49.4	98.8%	107	105.0	98.2%
Si 252.411	0.5-200ppm	0.07	-0.01	50.9	101.8%	51.3	102.5%	0.7%	50	49.2	98.5%	107	105.0	98.1%
Zn 213.857	10ppb-50ppm	-12.44	-12.72	999	99.9%	1008	100.8%	0.9%	1000	974	97.4%	1000	967	96.7%

Matrix Spikes

Sample ID AB12040

Analyte/ WL	Sample Value	MS Value	%Rec 70-130%	MSD Value	%Rec 70-130%	%Diff	CCV (90-110%)			%Diff 10%	CC Blank
							Value	Result	%Rec		
B 249.678	0.09	1.12	102.9%	1.09	100.2%	2.5%	1	1.04	104.1%	3.3%	0.00
B 249.772	0.09	1.13	103.9%	1.11	101.8%	1.8%	1	1.06	105.6%	5.9%	0.00
Ca 317.933	136.6	186.1	99.0%	184.0	94.8%	1.1%	50	50.3	100.6%	2.3%	-4.35
Ca 396.847	115.2	149.6	68.7%	148.1	65.8%	1.0%	50	50.4	100.9%	1.4%	-0.25
Cu 324.754	31	1071	104.0%	1053	102.2%	1.7%	1000	1012	101.2%	2.3%	-7.80
Cu 327.395	34	1106	107.2%	1085	105.1%	1.9%	1000	1037	103.7%	4.8%	-7.04
Fe 238.204	761	1738	97.7%	1717	95.6%	1.2%	1000	1004	100.4%	1.9%	-2.79
Fe 259.940	775	1772	99.7%	1754	97.9%	1.0%	1000	1007	100.7%	1.4%	-1.97
K 766.491	3.6	13.9	103.1%	13.7	100.5%	1.9%	10	10.1	100.9%	2.2%	0.07

Mg 202.582	23.1	77.8	109.6%	76.7	107.4%	1.4%	50	52.5	105.0%	4.6%	-1.95
Mg 279.078	22.7	73.2	101.0%	72.2	99.0%	1.4%	50	50.3	100.6%	1.9%	0.01
Mn 257.610	87	1104	101.7%	1090	100.3%	1.3%	1000	1011	101.1%	2.3%	-7.07
Mn 260.568	89	1111	102.2%	1097	100.8%	1.3%	1000	1017	101.7%	3.1%	-7.40
Na 568.821	96.9	149.1	104.3%	145.2	96.5%	2.7%	50	55.1	110.2%	8.4%	6.53
Na 589.592	90.0	140.9	101.7%	138.3	96.6%	1.8%	50	51.5	103.0%	3.6%	0.44
Si 251.611	31.0	81.6	101.1%	80.6	99.0%	1.3%	50	52.4	104.8%	5.9%	-0.08
Si 252.411	30.5	79.8	98.4%	78.6	96.2%	1.4%	50	51.2	102.3%	3.8%	-0.02
Zn 213.857	22	1051	102.9%	1040	101.8%	1.0%	1000	1013	101.3%	3.9%	-16.83

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Specific Conductance QC Summary (SM 2510B)

Date Analyzed: 2/24/2014

	Value (umhos/cm)	Result (umhos/cm)	% Rec	Acceptance Criteria %Rec
IPC	1412	1412	100.0%	95-105

Sample ID	Sample (umhos/cm)	Sample Dup (umhos/cm)	% RPD	Acceptance Criteria % RPD
AB12170	2780	2782	0.1%	10
AB12203	118	118	0.0%	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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Ortho Phosphate QC Summary (Hach 8190)

Date: 3/2/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
LCS	0.200	0.220	110	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12155	0.052	0.200	0.241	0.243	94.5	95.5	0.8	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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<http://www.MBASinc.com>

Total Phosphorus QC Summary (Hach 8190)

Date: 3/2/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
LCS	0.200	0.214	107	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12148	0.010	0.200	0.200	0.206	95	98	3.0	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

Cal Am Water Company
 Travis Peterson
 511 Pacific Lodge Road, Suite 100
 Pacific Grove, CA 93950

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net

ELAP Certification Number: 2385

Lab Number: AB12029

Collection Date/Time: 2/22/2014 14:45 Sample Collector: NATHAN REYNOL
 Submittal Date/Time: 2/22/2014 17:00 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-B1WQ Zone # 4 (134-144 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	96		2		2/24/2014	LRH
Aluminum, Total	EPA200.8	ug/L	Not Detected	E	10	1000	2/27/2014	MC LAB
Ammonia-N, Dissolved	SM4500NH3 D	mg/L	Not Detected		0.05		3/5/2014	DH
Arsenic, Total	EPA200.8	ug/L	Not Detected		1	10	2/27/2014	MC LAB
Barium, Dissolved	EPA200.8	ug/L	120		10		2/27/2014	MC LAB
Bicarbonate (as HCO3-)	SM2320B	mg/L	117		10		2/25/2014	SM
Boron, Dissolved	EPA200.7	mg/L	2.88		0.05		2/25/2014	DC
Bromide, Dissolved	EPA300.0	mg/L	38		0.1		2/23/2014	DH
Calcium	EPA200.7	mg/L	505		0.5		2/25/2014	DC
Calcium, Dissolved	EPA200.7	mg/L	502		0.5		2/25/2014	DC
Carbamates by HPLC (EPA 531)	EPA531	ug/L	Not Detected	E			2/26/2014	BSK
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		2/25/2014	SM
Chloride, Dissolved	EPA300.0	mg/L	14050		1		2/23/2014	DH
Chlorinated Pesticides and PCB (EP	EPA508	ug/L	Not Detected	E			2/28/2014	WECK
Color, Apparent (Unfiltered)	SM2120B	Color Units	10		3	15	2/23/2014	DH
Copper, Total	EPA200.8	ug/L	Not Detected		4	1300	2/27/2014	MC LAB
DBCP & EDB	EPA504.1	ug/L	Not Detected	E			2/26/2014	BSK
Dioxin	EPA-5 1613B	pg/L	Not Detected				2/28/2014	CERES
Diquat (EPA 549)	EPA549	ug/L	Not Detected	E			2/28/2014	BSK
Dissolved Anions		Meq/L	436.9				3/6/2014	DH
Dissolved Cations		Meq/L	458.9				3/6/2014	DH
Endothall	EPA548.1	ug/L	Not Detected	E			2/26/2014	BSK
Fluoride, Dissolved	EPA300.0	mg/L	Not Detected		0.1		2/23/2014	DH
Glyphosate	EPA547	ug/L	Not Detected	E			3/1/2014	BSK
Hardness (as CaCO3)	SM2340B	mg/L	5350		10		3/6/2014	DH
Hydroxide	SM2320B	mg/L	Not Detected		5		2/25/2014	SM
Iodide	EPA9056M	ug/L	Not Detected	E	10		3/1/2014	WECK
Iron	EPA200.7	ug/L	922		10	300	2/25/2014	DC
Iron, Dissolved	EPA200.7	ug/L	814		10	300	2/25/2014	DC
Kjehldahl Nitrogen, Dissolved	SM4500-NH3 B,	mg/L	0.4	J	0.5		2/25/2014	HM
Lithium	EPA200.8	ug/L	120		1		2/27/2014	MC LAB
Magnesium	EPA200.7	mg/L	993		0.5		2/25/2014	DC
Magnesium, Dissolved	EPA200.7	mg/L	981		1		2/25/2014	DC
Manganese, Dissolved	EPA200.7	ug/L	349		10	50	2/25/2014	DC
Manganese, Total	EPA200.7	ug/L	387		10	50	2/25/2014	DC
MBAS (Surfactants)	SM5540C	mg/L	Not Detected		0.05	0.50	2/23/2014	DH
Nitrate as NO3	EPA300.0	mg/L	2		1	45	2/23/2014	DH
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4		0.1		2/23/2014	DH
Nitrite as NO2-N, Dissolved	EPA300.0	mg/L	Not Detected		0.1		2/23/2014	DH

Lab Number: AB12029**Appendix G**Collection Date/Time: 2/22/2014 14:45
 Submittal Date/Time: 2/22/2014 17:00Sample Collector: NATHAN REYNOL
 Sample ID: GEOSCIENCE

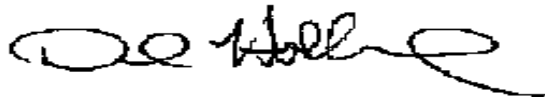
Coliform Designation:

Sample Description: CX-B1WQ Zone # 4 (134-144 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst
Odor Threshold at 60 C	SM2150B	TON	1		1	3	2/23/2014	DH
o-Phosphate-P, Dissolved	Hach 8190	mg/L	0.07		0.1		2/24/2014	DH
pH (Field Test)	SM4500-H+B	pH	6.82				2/22/2014	NR
pH (Laboratory)	SM4500-H+B	pH (H)	6.9				2/22/2014	DH
Phenoxy Acid Herbicides (515.3)	EPA515.3	ug/L	Not Detected	E			3/2/2014	BSK
Phosphorus, Dissolved	HACH 8190	mg/L	0.07		0.03		2/24/2014	DH
Potassium	EPA200.7	mg/L	261		0.5		2/25/2014	DC
Potassium, Dissolved	EPA200.7	mg/L	256		0.1		2/25/2014	DC
QC Ratio TDS/SEC	Calculation		0.67				2/27/2014	SM
Reg. Org. Compounds (EPA 525)	EPA525	ug/L	Not Detected	E			2/26/2014	BSK
Silica as SiO ₂ , Dissolved	EPA200.7	mg/L	27		0.5		2/25/2014	DC
Sodium	EPA200.7	mg/L	8045		0.5		2/25/2014	DC
Sodium, Dissolved	EPA200.7	mg/L	7968		0.5		2/25/2014	DC
Specific Conductance (E.C)	SM2510B	umhos/cm	39610		1	900	2/24/2014	HM
Specific Conductance (E.C) (Field)	SM2510B	umhos/cm	39592		1		2/22/2014	NR
Strontium, Dissolved	EPA200.8	ug/L	9400		5		2/27/2014	MC LAB
Sulfate	EPA300.0	mg/L	1832		1	250	2/23/2014	DH
Temperature (Field)	SM2550	° C	18.8				2/22/2014	NR
Total Cations		Meq/L	463.6				3/6/2014	DH
Total Diss. Solids	SM2540C	mg/L	26500		10	500	2/25/2014	HM
Turbidity	EPA180.1	NTU	4.6		0.05	5.0	2/24/2014	LRH
Turbidity (Field)	EPA180.1	NTU	0.24		0.05		2/22/2014	NR
Volatile Org. Compounds (524)	EPA524	ug/L	Not Detected	E			2/26/2014	BSK
Zinc, Total	EPA200.8	ug/L	Not Detected		10	5000	2/27/2014	MC LAB

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **UB12029 Zone #4 Total**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	8045	0.04350	349.96
Potassium	256	0.02558	6.55
Calcium	505	0.04990	25.20
Magnesium	993	0.08229	81.71
NH3-N	0	0.07143	0.00
		SUM	463.42

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	96	0.02000	1.92
Sulfate	1832	0.02082	38.14
Chloride	14050	0.02821	396.35
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0.4	0.07138	0.03
Phosphate-P	0.1	0.01031	0.00
Fluoride	0.0	0.05264	0.00
Bromide	38.0	0.01252	0.48
		SUM	436.92

ANION-CATION BALANCE **3** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	39610	
Cation Sum X 100	46342	117%
Anion Sum X 100	43692	110%

Note: In Natural Waters, Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	47.9
Ca+Mg+Na	456.87
HCO ₃ /Ca	0.08
dS/m	39.61
Value Table II	1.5
SAR adj	54.3

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **12029 Zone #4 Dissolvec**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	7968	0.04350	346.61
Potassium	256	0.02558	6.55
Calcium	502	0.04990	25.05
Magnesium	981	0.08229	80.73
NH3-N	0	0.07143	0.00
		SUM	458.93

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	96	0.02000	1.92
Sulfate	1832	0.02082	38.14
Chloride	14050	0.02821	396.35
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0.4	0.07138	0.03
Phosphate-P	0.1	0.01031	0.00
Fluoride	0.0	0.05264	0.00
Bromide	38.0	0.01252	0.48
		SUM	436.92

ANION-CATION BALANCE **2** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	39610	
Cation Sum X 100	45893	116%
Anion Sum X 100	43692	110%

Note: In Natural Waters, Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	47.7
Ca+Mg+Na	452.38
HCO ₃ /Ca	0.08
dS/m	39.61
Value Table II	1.5
SAR adj	54.1

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Appendix G

A4B1781

3/03/2014

Invoice: A405123

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

RE: Report for A4B1781 Cal Am

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 2/25/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAP Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montieth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montieth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: Monterey Bay Analytical
Report To: David Holland
Project #: -
Received: 2/25/2014 - 09:30
Report Due: 3/04/2014

Invoice To: Monterey Bay Analytical
Invoice Attn: David Holland
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 3.1	COC/Labels Agree
	Received On Wet Ice
	Packing Material - Bubble Wrap
	Sample(s) were received in temperature range.
	Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.

Report Distribution

Recipient(s)	Report Format
David Holland	Final.rpt

Certificate of Analysis

Sample ID: A4B1781-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #4 (134-144 ft bgs) // 12029

Sample Date - Time: 02/22/14 - 14:45
Matrix: Drinking Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A402381	02/25/14	02/26/14	CV0.0
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A402381	02/25/14	02/26/14	CV0.0
Surrogate: 1-Br-2-Nitrobenzene	EPA 504.1	111 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A402552	02/28/14	03/02/14	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A402552	02/28/14	03/02/14	
2,4-D	EPA 515.3	ND	10	ug/L	1	A402552	02/28/14	03/02/14	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A402552	02/28/14	03/02/14	
Dalapon	EPA 515.3	ND	10	ug/L	1	A402552	02/28/14	03/02/14	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A402552	02/28/14	03/02/14	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A402552	02/28/14	03/02/14	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A402552	02/28/14	03/02/14	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A402552	02/28/14	03/02/14	
Surrogate: DCPAA	EPA 515.3	74 %	<i>Acceptable range: 70-130 %</i>						
<u>Volatile Organics by GC-MS</u>									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A402390	02/26/14	02/26/14	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A402390	02/26/14	02/26/14	BS1.0
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A402390	02/26/14	02/26/14	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A402390	02/26/14	02/26/14	
Acetone	EPA 524.2	ND	10	ug/L	1	A402390	02/26/14	02/26/14	BS1.0, CV0.0

Certificate of Analysis

Sample ID: A4B1781-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #4 (134-144 ft bgs) // 12029

Sample Date - Time: 02/22/14 - 14:45
Matrix: Drinking Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics by GC-MS									
Benzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A402390	02/26/14	02/26/14	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	BS1.0, CV0.0
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A402390	02/26/14	02/26/14	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A402390	02/26/14	02/26/14	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A402390	02/26/14	02/26/14	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	

Certificate of Analysis

Sample ID: A4B1781-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #4 (134-144 ft bgs) // 12029

Sample Date - Time: 02/22/14 - 14:45
Matrix: Drinking Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	100 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	104 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A402368	02/25/14	02/26/14	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A402368	02/25/14	02/26/14	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Bromacil	EPA 525.2	ND	10	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A402368	02/25/14	02/26/14	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A402368	02/25/14	02/26/14	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A402368	02/25/14	02/26/14	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A402368	02/25/14	02/26/14	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	105 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A402388	02/25/14	02/26/14	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A402388	02/25/14	02/26/14	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A402388	02/25/14	02/26/14	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A402388	02/25/14	02/26/14	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A402388	02/25/14	02/26/14	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A402388	02/25/14	02/26/14	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A402388	02/25/14	02/26/14	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A402388	02/25/14	02/26/14	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A402555	03/01/14	03/01/14	
Surrogate: AMPA	EPA 547	97 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A402387	02/25/14	02/26/14	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A402367	02/25/14	02/28/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A402381

Prepared: 02/25/2014

Prep Method: EPA 505

Analyst: GAK

Blank (A402381-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							02/26/14
Ethylene Dibromide (EDB)	ND	0.020	ug/L							02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.8			3.4		110	70-130			02/26/14

Blank Spike (A402381-BS1)

Dibromochloropropane (DBCP)	0.24	0.010	ug/L	0.20		118	70-130			02/26/14
Ethylene Dibromide (EDB)	0.23	0.020	ug/L	0.20		113	70-130			02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.6			3.4		104	70-130			02/26/14

Blank Spike Dup (A402381-BSD1)

Dibromochloropropane (DBCP)	0.25	0.010	ug/L	0.20		125	70-130	5	20	02/26/14
Ethylene Dibromide (EDB)	0.24	0.020	ug/L	0.20		122	70-130	7	20	02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.7			3.4		109	70-130			02/26/14

Matrix Spike (A402381-MS1), Source: A4B1641-01

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20	ND	111	65-135			02/26/14
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.20	ND	109	65-135			02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.3			3.4		99	70-130			02/26/14

Matrix Spike Dup (A402381-MSD1), Source: A4B1641-01

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20	ND	114	65-135	3	20	02/26/14
Ethylene Dibromide (EDB)	0.23	0.020	ug/L	0.20	ND	115	65-135	5	20	02/26/14
Surrogate: 1-Br-2-Nitrobenzene	3.4			3.4		101	70-130			02/26/14

EPA 515.3 - Quality Control

Batch: A402552

Prepared: 02/28/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank (A402552-BLK1)

2,4,5-T	ND	1.0	ug/L							03/02/14
2,4,5-TP (Silvex)	ND	1.0	ug/L							03/02/14
2,4-D	ND	10	ug/L							03/02/14
Bentazon	ND	2.0	ug/L							03/02/14
Dalapon	ND	10	ug/L							03/02/14
Dicamba	ND	1.5	ug/L							03/02/14
Dinoseb	ND	2.0	ug/L							03/02/14
Pentachlorophenol	ND	0.20	ug/L							03/02/14
Picloram	ND	1.0	ug/L							03/02/14
Surrogate: DCPAA	46			58		80	70-130			03/02/14

Blank Spike (A402552-BS1)

2,4,5-T	4.1	1.0	ug/L	4.0		103	70-130			03/02/14
2,4,5-TP (Silvex)	0.84	1.0	ug/L	0.80		105	70-130			03/02/14
2,4-D	0.46	10	ug/L	0.40		115	70-130			03/02/14
Bentazon	8.9	2.0	ug/L	8.0		111	70-130			03/02/14
Dalapon	4.1	10	ug/L	4.0		101	70-130			03/02/14

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A402552

Prepared: 02/28/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike (A402552-BS1)

Dicamba	6.2	1.5	ug/L	6.0		103	70-130			03/02/14	
Dinoseb	0.82	2.0	ug/L	0.80		102	70-130			03/02/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16		100	70-130			03/02/14	
Picloram	0.41	1.0	ug/L	0.40		104	70-130			03/02/14	
Surrogate: DCPAA	47			58		80	70-130			03/02/14	

Blank Spike Dup (A402552-BSD1)

2,4,5-T	4.2	1.0	ug/L	4.0		105	70-130	2	20	03/02/14	
2,4,5-TP (Silvex)	0.83	1.0	ug/L	0.80		103	70-130	2	20	03/02/14	
2,4-D	0.47	10	ug/L	0.40		118	70-130	2	20	03/02/14	
Bentazon	8.7	2.0	ug/L	8.0		109	70-130	2	20	03/02/14	
Dalapon	4.2	10	ug/L	4.0		106	70-130	4	20	03/02/14	
Dicamba	6.1	1.5	ug/L	6.0		101	70-130	2	20	03/02/14	
Dinoseb	0.81	2.0	ug/L	0.80		102	70-130	1	20	03/02/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16		98	70-130	2	20	03/02/14	
Picloram	0.43	1.0	ug/L	0.40		107	70-130	4	20	03/02/14	
Surrogate: DCPAA	45			58		78	70-130			03/02/14	

Matrix Spike (A402552-MS1), Source: A4B1782-01

2,4,5-T	4.2	1.0	ug/L	4.0	ND	104	70-130			03/02/14	
2,4,5-TP (Silvex)	0.85	1.0	ug/L	0.80	ND	106	70-130			03/02/14	
2,4-D	0.47	10	ug/L	0.40	ND	117	70-130			03/02/14	
Bentazon	8.8	2.0	ug/L	8.0	ND	110	70-130			03/02/14	
Dalapon	4.2	10	ug/L	4.0	ND	105	70-130			03/02/14	
Dicamba	6.0	1.5	ug/L	6.0	ND	101	70-130			03/02/14	
Dinoseb	0.82	2.0	ug/L	0.80	ND	102	70-130			03/02/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	97	70-130			03/02/14	
Picloram	0.41	1.0	ug/L	0.40	ND	103	70-130			03/02/14	
Surrogate: DCPAA	47			58		81	70-130			03/02/14	

Matrix Spike Dup (A402552-MSD1), Source: A4B1782-01

2,4,5-T	4.1	1.0	ug/L	4.0	ND	103	70-130	1	20	03/02/14	
2,4,5-TP (Silvex)	0.84	1.0	ug/L	0.80	ND	105	70-130	1	20	03/02/14	
2,4-D	0.51	10	ug/L	0.40	ND	127	70-130	9	20	03/02/14	
Bentazon	8.8	2.0	ug/L	8.0	ND	110	70-130	0	20	03/02/14	
Dalapon	4.1	10	ug/L	4.0	ND	102	70-130	3	20	03/02/14	
Dicamba	6.0	1.5	ug/L	6.0	ND	100	70-130	1	20	03/02/14	
Dinoseb	0.80	2.0	ug/L	0.80	ND	101	70-130	2	20	03/02/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	97	70-130	0	20	03/02/14	
Picloram	0.40	1.0	ug/L	0.40	ND	99	70-130	4	20	03/02/14	
Surrogate: DCPAA	46			58		80	70-130			03/02/14	

EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402390-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							02/26/14	
1,1,1-Trichloroethane	ND	0.50	ug/L							02/26/14	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							02/26/14	
1,1,2-Trichloroethane	ND	0.50	ug/L							02/26/14	
1,1-Dichloroethane	ND	0.50	ug/L							02/26/14	
1,1-Dichloroethene	ND	0.50	ug/L							02/26/14	
1,1-Dichloropropene	ND	0.50	ug/L							02/26/14	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							02/26/14	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							02/26/14	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							02/26/14	
1,2-Dichlorobenzene	ND	0.50	ug/L							02/26/14	
1,2-Dichloroethane	ND	0.50	ug/L							02/26/14	
1,2-Dichloropropane	ND	0.50	ug/L							02/26/14	
1,3,5-Trimethylbenzene	ND	0.50	ug/L							02/26/14	
1,3-Dichlorobenzene	ND	0.50	ug/L							02/26/14	
1,3-Dichloropropane	ND	0.50	ug/L							02/26/14	
1,4-Dichlorobenzene	ND	0.50	ug/L							02/26/14	
2,2-Dichloropropane	ND	0.50	ug/L							02/26/14	
2-Butanone	ND	5.0	ug/L							02/26/14	
2-Chlorotoluene	ND	0.50	ug/L							02/26/14	
2-Hexanone	ND	10	ug/L							02/26/14	
4-Chlorotoluene	ND	0.50	ug/L							02/26/14	
4-Methyl-2-pentanone	ND	5.0	ug/L							02/26/14	
Acetone	ND	10	ug/L							02/26/14	
Benzene	ND	0.50	ug/L							02/26/14	
Bromobenzene	ND	0.50	ug/L							02/26/14	
Bromochloromethane	ND	0.50	ug/L							02/26/14	
Bromodichloromethane	ND	0.50	ug/L							02/26/14	
Bromoform	ND	0.50	ug/L							02/26/14	
Bromomethane	ND	0.50	ug/L							02/26/14	
Carbon Tetrachloride	ND	0.50	ug/L							02/26/14	
Chlorobenzene	ND	0.50	ug/L							02/26/14	
Chloroethane	ND	0.50	ug/L							02/26/14	
Chloroform	ND	0.50	ug/L							02/26/14	
Chloromethane	ND	0.50	ug/L							02/26/14	
cis-1,2-Dichloroethene	ND	0.50	ug/L							02/26/14	
cis-1,3-Dichloropropene	ND	0.50	ug/L							02/26/14	
Dibromochloromethane	ND	0.50	ug/L							02/26/14	
Dibromomethane	ND	0.50	ug/L							02/26/14	
Dichlorodifluoromethane	ND	0.50	ug/L							02/26/14	
Dichloromethane	ND	0.50	ug/L							02/26/14	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							02/26/14	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							02/26/14	
Ethylbenzene	ND	0.50	ug/L							02/26/14	
Hexachlorobutadiene	ND	0.50	ug/L							02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402390-BLK1)

Isopropylbenzene	ND	0.50	ug/L							02/26/14	
m,p-Xylenes	ND	0.50	ug/L							02/26/14	
Methyl-t-butyl ether	ND	0.50	ug/L							02/26/14	
Naphthalene	ND	0.50	ug/L							02/26/14	
n-Butylbenzene	ND	0.50	ug/L							02/26/14	
n-Propylbenzene	ND	0.50	ug/L							02/26/14	
o-Xylene	ND	0.50	ug/L							02/26/14	
p-Isopropyltoluene	ND	0.50	ug/L							02/26/14	
sec-Butylbenzene	ND	0.50	ug/L							02/26/14	
Styrene	ND	0.50	ug/L							02/26/14	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							02/26/14	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							02/26/14	
tert-Butylbenzene	ND	0.50	ug/L							02/26/14	
Tetrachloroethene (PCE)	ND	0.50	ug/L							02/26/14	
Toluene	ND	0.50	ug/L							02/26/14	
trans-1,2-Dichloroethene	ND	0.50	ug/L							02/26/14	
trans-1,3-Dichloropropene	ND	0.50	ug/L							02/26/14	
Trichloroethene (TCE)	ND	0.50	ug/L							02/26/14	
Trichlorofluoromethane	ND	5.0	ug/L							02/26/14	
Vinyl Chloride	ND	0.50	ug/L							02/26/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		95	70-130			02/26/14	
Surrogate: Bromofluorobenzene	50			50		101	70-130			02/26/14	

Blank Spike (A402390-BS1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		108	70-130			02/26/14	
1,1,1-Trichloroethane	11	0.50	ug/L	10		106	70-130			02/26/14	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		107	70-130			02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	11	10	ug/L	10		106	70-130			02/26/14	
1,1,2-Trichloroethane	11	0.50	ug/L	10		107	70-130			02/26/14	
1,1-Dichloroethane	10	0.50	ug/L	10		105	70-130			02/26/14	
1,1-Dichloroethene	10	0.50	ug/L	10		103	70-130			02/26/14	
1,1-Dichloropropene	11	0.50	ug/L	10		108	70-130			02/26/14	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		103	70-130			02/26/14	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
1,2-Dichlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,2-Dichloroethane	10	0.50	ug/L	10		101	70-130			02/26/14	
1,2-Dichloropropane	10	0.50	ug/L	10		105	70-130			02/26/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,3-Dichlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,3-Dichloropropane	11	0.50	ug/L	10		108	70-130			02/26/14	
1,4-Dichlorobenzene	11	0.50	ug/L	10		105	70-130			02/26/14	
2,2-Dichloropropane	11	0.50	ug/L	10		108	70-130			02/26/14	
2-Butanone	14	5.0	ug/L	10		139	70-130			02/26/14	BS High
2-Chlorotoluene	10	0.50	ug/L	10		104	70-130			02/26/14	
2-Hexanone	12	10	ug/L	10		115	70-130			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A402390-BS1)

4-Chlorotoluene	11	0.50	ug/L	10		106	70-130			02/26/14	
4-Methyl-2-pentanone	12	5.0	ug/L	10		119	70-130			02/26/14	
Acetone	22	10	ug/L	10		221	70-130			02/26/14	BS High
Benzene	10	0.50	ug/L	10		101	70-130			02/26/14	
Bromobenzene	11	0.50	ug/L	10		107	70-130			02/26/14	
Bromochloromethane	10	0.50	ug/L	10		104	70-130			02/26/14	
Bromodichloromethane	8.5	0.50	ug/L	10		85	70-130			02/26/14	
Bromoform	11	0.50	ug/L	10		115	70-130			02/26/14	
Bromomethane	9.5	0.50	ug/L	10		95	70-130			02/26/14	
Carbon Tetrachloride	11	0.50	ug/L	10		110	70-130			02/26/14	
Chlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
Chloroethane	10	0.50	ug/L	10		100	70-130			02/26/14	
Chloroform	10	0.50	ug/L	10		102	70-130			02/26/14	
Chloromethane	9.6	0.50	ug/L	10		96	70-130			02/26/14	
cis-1,2-Dichloroethene	10	0.50	ug/L	10		104	70-130			02/26/14	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		109	70-130			02/26/14	
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130			02/26/14	
Dibromomethane	11	0.50	ug/L	10		114	70-130			02/26/14	
Dichlorodifluoromethane	9.9	0.50	ug/L	10		99	70-130			02/26/14	
Dichloromethane	11	0.50	ug/L	10		106	70-130			02/26/14	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		107	70-130			02/26/14	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		111	70-130			02/26/14	
Ethylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
Hexachlorobutadiene	10	0.50	ug/L	10		104	70-130			02/26/14	
Isopropylbenzene	10	0.50	ug/L	10		103	70-130			02/26/14	
m,p-Xylenes	19	0.50	ug/L	20		96	70-130			02/26/14	
Methyl-t-butyl ether	22	0.50	ug/L	20		108	70-130			02/26/14	
Naphthalene	11	0.50	ug/L	10		109	70-130			02/26/14	
n-Butylbenzene	10	0.50	ug/L	10		103	70-130			02/26/14	
n-Propylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
o-Xylene	10	0.50	ug/L	10		104	70-130			02/26/14	
p-Isopropyltoluene	11	0.50	ug/L	10		106	70-130			02/26/14	
sec-Butylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
Styrene	13	0.50	ug/L	10		129	70-130			02/26/14	
tert-Amyl Methyl Ether (TAME)	11	3.0	ug/L	10		111	70-130			02/26/14	
tert-Butyl alcohol (TBA)	11	2.0	ug/L	10		107	70-130			02/26/14	
tert-Butylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
Tetrachloroethene (PCE)	10	0.50	ug/L	10		104	70-130			02/26/14	
Toluene	11	0.50	ug/L	10		106	70-130			02/26/14	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		105	70-130			02/26/14	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		109	70-130			02/26/14	
Trichloroethene (TCE)	9.4	0.50	ug/L	10		94	70-130			02/26/14	
Trichlorofluoromethane	11	5.0	ug/L	10		107	70-130			02/26/14	
Vinyl Chloride	9.9	0.50	ug/L	10		99	70-130			02/26/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		100	70-130			02/26/14	
Surrogate: Bromofluorobenzene	5.0			5.0		100	70-130			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402390-BSD1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		109	70-130	1	30	02/26/14	
1,1,1-Trichloroethane	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		109	70-130	2	30	02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	11	10	ug/L	10		110	70-130	3	30	02/26/14	
1,1,2-Trichloroethane	11	0.50	ug/L	10		108	70-130	2	30	02/26/14	
1,1-Dichloroethane	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
1,1-Dichloroethene	11	0.50	ug/L	10		108	70-130	5	30	02/26/14	
1,1-Dichloropropene	11	0.50	ug/L	10		110	70-130	1	30	02/26/14	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		105	70-130	2	30	02/26/14	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		108	70-130	2	30	02/26/14	
1,2,4-Trimethylbenzene	11	0.50	ug/L	10		110	70-130	6	30	02/26/14	
1,2-Dichlorobenzene	11	0.50	ug/L	10		106	70-130	0	30	02/26/14	
1,2-Dichloroethane	11	0.50	ug/L	10		107	70-130	6	30	02/26/14	
1,2-Dichloropropane	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		111	70-130	5	30	02/26/14	
1,3-Dichlorobenzene	11	0.50	ug/L	10		107	70-130	1	30	02/26/14	
1,3-Dichloropropane	11	0.50	ug/L	10		109	70-130	1	30	02/26/14	
1,4-Dichlorobenzene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
2,2-Dichloropropane	11	0.50	ug/L	10		112	70-130	4	30	02/26/14	
2-Butanone	14	5.0	ug/L	10		139	70-130	0	30	02/26/14	BS High
2-Chlorotoluene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
2-Hexanone	12	10	ug/L	10		115	70-130	0	30	02/26/14	
4-Chlorotoluene	11	0.50	ug/L	10		110	70-130	4	30	02/26/14	
4-Methyl-2-pentanone	11	5.0	ug/L	10		114	70-130	4	30	02/26/14	
Acetone	22	10	ug/L	10		221	70-130	0	30	02/26/14	BS High
Benzene	10	0.50	ug/L	10		104	70-130	3	30	02/26/14	
Bromobenzene	11	0.50	ug/L	10		109	70-130	2	30	02/26/14	
Bromochloromethane	10	0.50	ug/L	10		104	70-130	0	30	02/26/14	
Bromodichloromethane	9.8	0.50	ug/L	10		98	70-130	14	30	02/26/14	
Bromoform	11	0.50	ug/L	10		115	70-130	0	30	02/26/14	
Bromomethane	9.4	0.50	ug/L	10		94	70-130	1	30	02/26/14	
Carbon Tetrachloride	11	0.50	ug/L	10		108	70-130	2	30	02/26/14	
Chlorobenzene	11	0.50	ug/L	10		110	70-130	3	30	02/26/14	
Chloroethane	10	0.50	ug/L	10		100	70-130	0	30	02/26/14	
Chloroform	11	0.50	ug/L	10		105	70-130	3	30	02/26/14	
Chloromethane	9.1	0.50	ug/L	10		91	70-130	6	30	02/26/14	
cis-1,2-Dichloroethene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		112	70-130	2	30	02/26/14	
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130	0	30	02/26/14	
Dibromomethane	10	0.50	ug/L	10		101	70-130	12	30	02/26/14	
Dichlorodifluoromethane	10	0.50	ug/L	10		104	70-130	5	30	02/26/14	
Dichloromethane	11	0.50	ug/L	10		108	70-130	1	30	02/26/14	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		110	70-130	2	30	02/26/14	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		112	70-130	1	30	02/26/14	
Ethylbenzene	11	0.50	ug/L	10		108	70-130	4	30	02/26/14	
Hexachlorobutadiene	11	0.50	ug/L	10		108	70-130	4	30	02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402390-BSD1)

Isopropylbenzene	11	0.50	ug/L	10		107	70-130	4	30	02/26/14	
m,p-Xylenes	20	0.50	ug/L	20		99	70-130	4	30	02/26/14	
Methyl-t-butyl ether	22	0.50	ug/L	20		109	70-130	1	30	02/26/14	
Naphthalene	11	0.50	ug/L	10		111	70-130	2	30	02/26/14	
n-Butylbenzene	11	0.50	ug/L	10		107	70-130	4	30	02/26/14	
n-Propylbenzene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
o-Xylene	11	0.50	ug/L	10		106	70-130	2	30	02/26/14	
p-Isopropyltoluene	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
sec-Butylbenzene	11	0.50	ug/L	10		107	70-130	3	30	02/26/14	
Styrene	14	0.50	ug/L	10		140	70-130	9	30	02/26/14	BS High
tert-Amyl Methyl Ether (TAME)	11	3.0	ug/L	10		115	70-130	4	30	02/26/14	
tert-Butyl alcohol (TBA)	10	2.0	ug/L	10		105	70-130	2	30	02/26/14	
tert-Butylbenzene	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
Tetrachloroethene (PCE)	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
Toluene	11	0.50	ug/L	10		110	70-130	4	30	02/26/14	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		112	70-130	2	30	02/26/14	
Trichloroethene (TCE)	11	0.50	ug/L	10		108	70-130	14	30	02/26/14	
Trichlorofluoromethane	11	5.0	ug/L	10		109	70-130	2	30	02/26/14	
Vinyl Chloride	10	0.50	ug/L	10		104	70-130	4	30	02/26/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		100	70-130			02/26/14	
Surrogate: Bromofluorobenzene	50			50		101	70-130			02/26/14	

EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank (A402368-BLK1)

Alachlor	ND	1.0	ug/L							02/26/14	
Atrazine	ND	0.50	ug/L							02/26/14	
Benzo(a)pyrene	ND	0.10	ug/L							02/26/14	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							02/26/14	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							02/26/14	
Bromacil	ND	10	ug/L							02/26/14	
Butachlor	ND	0.38	ug/L							02/26/14	
Diazinon	ND	0.25	ug/L							02/26/14	
Dimethoate	ND	10	ug/L							02/26/14	
Metolachlor	ND	0.50	ug/L							02/26/14	
Metribuzin	ND	0.50	ug/L							02/26/14	
Molinate	ND	2.0	ug/L							02/26/14	
Propachlor	ND	0.50	ug/L							02/26/14	
Simazine	ND	1.0	ug/L							02/26/14	
Thiobencarb	ND	1.0	ug/L							02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	6.0			5.0		119	70-130			02/26/14	

Blank Spike (A402368-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A402368-BS1)

Alachlor	0.60	1.0	ug/L	0.50		119	70-130			02/26/14	
Atrazine	0.55	0.50	ug/L	0.50		111	70-130			02/26/14	
Benzo(a)pyrene	0.12	0.10	ug/L	0.10		119	70-130			02/26/14	
Bis(2-ethylhexyl) adipate	3.6	3.0	ug/L	3.0		120	70-130			02/26/14	
Bis(2-ethylhexyl) phthalate	4.3	3.0	ug/L	3.0		142	70-130			02/26/14	BS High
Bromacil	2.6	10	ug/L	2.0		132	70-130			02/26/14	BS High
Butachlor	1.4	0.38	ug/L	1.2		110	70-130			02/26/14	
Diazinon	0.038	0.25	ug/L	0.050		76	70-130			02/26/14	
Dimethoate	0.35	10	ug/L	0.50		71	70-130			02/26/14	
Metolachlor	3.3	0.50	ug/L	2.5		131	70-130			02/26/14	BS High
Metribuzin	3.0	0.50	ug/L	2.5		120	70-130			02/26/14	
Molinate	2.9	2.0	ug/L	2.5		117	70-130			02/26/14	
Propachlor	2.9	0.50	ug/L	2.5		117	70-130			02/26/14	
Simazine	0.40	1.0	ug/L	0.35		116	70-130			02/26/14	
Thiobencarb	0.59	1.0	ug/L	0.50		119	70-130			02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.5			5.0		109	70-130			02/26/14	

Blank Spike Dup (A402368-BSD1)

Alachlor	0.58	1.0	ug/L	0.49		118	70-130	3	30	02/26/14	
Atrazine	0.53	0.50	ug/L	0.49		107	70-130	5	30	02/26/14	
Benzo(a)pyrene	0.11	0.10	ug/L	0.098		116	70-130	4	30	02/26/14	
Bis(2-ethylhexyl) adipate	3.6	3.0	ug/L	2.9		122	70-130	0	30	02/26/14	
Bis(2-ethylhexyl) phthalate	4.1	3.0	ug/L	2.9		140	70-130	3	30	02/26/14	BS High
Bromacil	2.6	10	ug/L	2.0		132	70-130	2	30	02/26/14	BS High
Butachlor	1.4	0.38	ug/L	1.2		111	70-130	1	30	02/26/14	
Diazinon	0.040	0.25	ug/L	0.049		82	70-130	6	30	02/26/14	
Dimethoate	0.34	10	ug/L	0.49		70	70-130	3	30	02/26/14	
Metolachlor	3.2	0.50	ug/L	2.5		132	70-130	1	30	02/26/14	BS High
Metribuzin	3.0	0.50	ug/L	2.5		121	70-130	1	30	02/26/14	
Molinate	2.7	2.0	ug/L	2.5		109	70-130	9	30	02/26/14	
Propachlor	2.7	0.50	ug/L	2.5		109	70-130	8	30	02/26/14	
Simazine	0.37	1.0	ug/L	0.34		108	70-130	9	30	02/26/14	
Thiobencarb	0.57	1.0	ug/L	0.49		116	70-130	3	30	02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			4.9		101	70-130			02/26/14	

Matrix Spike (A402368-MS1), Source: A4B1490-02

Alachlor	0.54	1.0	ug/L	0.49	ND	110	70-130			02/26/14	
Atrazine	0.52	0.50	ug/L	0.49	ND	105	70-130			02/26/14	
Benzo(a)pyrene	0.13	0.10	ug/L	0.099	ND	134	70-130			02/26/14	MS1.0 High
Bis(2-ethylhexyl) adipate	3.7	3.0	ug/L	3.0	ND	124	70-130			02/26/14	
Bis(2-ethylhexyl) phthalate	4.4	3.0	ug/L	3.0	ND	129	70-130			02/26/14	
Bromacil	2.5	10	ug/L	2.0	ND	126	70-130			02/26/14	
Butachlor	1.3	0.38	ug/L	1.2	ND	106	70-130			02/26/14	
Diazinon	0.056	0.25	ug/L	0.049	ND	114	70-130			02/26/14	
Dimethoate	0.32	10	ug/L	0.49	ND	64	70-130			02/26/14	MS1.0 Low
Metolachlor	2.9	0.50	ug/L	2.5	ND	119	70-130			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Matrix Spike (A402368-MS1), Source: A4B1490-02

Metribuzin	2.6	0.50	ug/L	2.5	ND	104	70-130			02/26/14	
Molinate	2.7	2.0	ug/L	2.5	ND	110	70-130			02/26/14	
Propachlor	2.6	0.50	ug/L	2.5	ND	107	70-130			02/26/14	
Simazine	0.38	1.0	ug/L	0.35	ND	109	70-130			02/26/14	
Thiobencarb	0.57	1.0	ug/L	0.49	ND	116	70-130			02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.2			4.9		106	70-130			02/26/14	

EPA 531.1 - Quality Control

Batch: A402388

Prepared: 02/25/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank (A402388-BLK1)

3-Hydroxycarbofuran	ND	2.0	ug/L							02/25/14	
Aldicarb	ND	2.0	ug/L							02/25/14	
Aldicarb Sulfone	ND	2.0	ug/L							02/25/14	
Aldicarb Sulfoxide	ND	2.0	ug/L							02/25/14	
Carbaryl	ND	2.0	ug/L							02/25/14	
Carbofuran	ND	2.0	ug/L							02/25/14	
Methomyl	ND	2.0	ug/L							02/25/14	
Oxamyl	ND	2.0	ug/L							02/25/14	

Blank Spike (A402388-BS1)

3-Hydroxycarbofuran	4.2	2.0	ug/L	4.0		105	80-120			02/25/14	
Aldicarb	4.1	2.0	ug/L	4.0		103	80-120			02/25/14	
Aldicarb Sulfone	4.1	2.0	ug/L	4.0		103	80-120			02/25/14	
Aldicarb Sulfoxide	4.1	2.0	ug/L	4.0		104	80-120			02/25/14	
Carbaryl	4.2	2.0	ug/L	4.0		104	80-120			02/25/14	
Carbofuran	4.1	2.0	ug/L	4.0		102	80-120			02/25/14	
Methomyl	4.1	2.0	ug/L	4.0		103	80-120			02/25/14	
Oxamyl	4.1	2.0	ug/L	4.0		102	80-120			02/25/14	

Blank Spike Dup (A402388-BSD1)

3-Hydroxycarbofuran	4.1	2.0	ug/L	4.0		103	80-120	1	20	02/26/14	
Aldicarb	4.1	2.0	ug/L	4.0		102	80-120	1	20	02/26/14	
Aldicarb Sulfone	4.2	2.0	ug/L	4.0		106	80-120	3	20	02/26/14	
Aldicarb Sulfoxide	4.2	2.0	ug/L	4.0		105	80-120	1	20	02/26/14	
Carbaryl	4.1	2.0	ug/L	4.0		101	80-120	3	20	02/26/14	
Carbofuran	4.1	2.0	ug/L	4.0		103	80-120	2	20	02/26/14	
Methomyl	4.3	2.0	ug/L	4.0		109	80-120	5	20	02/26/14	
Oxamyl	4.2	2.0	ug/L	4.0		104	80-120	2	20	02/26/14	

Matrix Spike (A402388-MS1), Source: A4B1177-01

3-Hydroxycarbofuran	3.3	2.0	ug/L	4.0	ND	82	65-135			02/26/14	
Aldicarb	3.1	2.0	ug/L	4.0	ND	72	65-135			02/26/14	
Aldicarb Sulfone	3.5	2.0	ug/L	4.0	ND	79	65-135			02/26/14	
Aldicarb Sulfoxide	3.5	2.0	ug/L	4.0	ND	87	65-135			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A402388

Prepared: 02/25/2014

Prep Method: EPA 531.1

Analyst: AAR

Matrix Spike (A402388-MS1), Source: A4B1177-01

Carbaryl	10	2.0	ug/L	4.0	8.8	31	65-135			02/26/14	MS1.0 Low
Carbofuran	3.3	2.0	ug/L	4.0	ND	83	65-135			02/26/14	
Methomyl	3.5	2.0	ug/L	4.0	ND	87	65-135			02/26/14	
Oxamyl	3.3	2.0	ug/L	4.0	ND	84	65-135			02/26/14	

EPA 547 - Quality Control

Batch: A402555

Prepared: 03/01/2014

Prep Method: EPA 547

Analyst: RJB

Blank (A402555-BLK1)

Glyphosate	ND	25	ug/L							03/01/14	
Surrogate: AMPA	95			100		95	70-130			03/01/14	

Blank Spike (A402555-BS1)

Glyphosate	100	25	ug/L	100		103	70-130			03/01/14	
Surrogate: AMPA	100			100		102	70-130			03/01/14	

Blank Spike Dup (A402555-BSD1)

Glyphosate	120	25	ug/L	100		116	70-130	12	30	03/01/14	
Surrogate: AMPA	97			100		97	70-130			03/01/14	

Matrix Spike (A402555-MS1), Source: A4B1780-01

Glyphosate	97	25	ug/L	100	ND	95	70-130			03/01/14	
Surrogate: AMPA	89			100		87	70-130			03/01/14	

Matrix Spike Dup (A402555-MSD1), Source: A4B1780-01

Glyphosate	93	25	ug/L	100	ND	91	70-130	4	30	03/01/14	
Surrogate: AMPA	86			100		84	70-130			03/01/14	

EPA 548.1 - Quality Control

Batch: A402387

Prepared: 02/25/2014

Prep Method: EPA 548.1

Analyst: KHH

Blank (A402387-BLK1)

Endothall	ND	45	ug/L							02/26/14	
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Blank Spike (A402387-BS1)

Endothall	17	45	ug/L	20		83	60-111			02/26/14	
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Blank Spike Dup (A402387-BSD1)

Endothall	15	45	ug/L	20		73	60-111	13	46	02/26/14	
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Matrix Spike (A402387-MS1), Source: A4B1489-04

Endothall	4.3	45	ug/L	20	ND	22	10-122			02/26/14	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 549.2 - Quality Control

Batch: A402367

Prepared: 02/25/2014

Prep Method: EPA 549.2

Analyst: PYA

Blank (A402367-BLK1)

Diquat	ND	4.0	ug/L							02/28/14	
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Blank Spike (A402367-BS1)

Diquat	3.0	4.0	ug/L	4.0		76	70-130			02/28/14	
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Blank Spike Dup (A402367-BSD1)

Diquat	2.9	4.0	ug/L	4.0		72	70-130	6	30	02/28/14	
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Matrix Spike (A402367-MS1), Source: A4B1780-01

Diquat	2.2	4.0	ug/L	4.0	ND	54	70-130			02/28/14	MS1.0 Low
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Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of Oregon - NELAP	4021	State of Washington	C997
State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA

BSK is not accredited under the NELAC program for the following parameters:

A4B1781



Monterey Bay Analytical

Monte6227



02252014

Turnaround: Standard
Due Date: 03/04/2014

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

A4B1781
 Montec6227
 02/25/2014
 5



TEMP: 3.1

Client/Company Name * **Monterey Bay Analytical** Report Attention * **David Holland** Phone * # (831)-357-6227 FAX * # (831)-641-0734
 E-mail: **4MBAS@Sbcglobal.net**

Address * **4 Justin Ct.** City * **Monterey** State * **CA** Zip * **93940**

Project Information: **Cal Am** PO # **464** Quote # **464**

How would you like your completed results sent? E-Mail Fax EDD Mail Only

Sampler Name Printed / Signature **Nathan Reynolds** QC Request STD Level II Result Request ** Surcharge 5 Day** 2 Day** Day**

Matrix Types: **RSW = Raw Surface Water** **QFW = Chlorinated Finished Water** **QW/W = Chlorinated Waste Water** **BW = Bottled Water**
RGW = Raw Ground Water **FW = Finished Water** **WW = Waste Water** **DW = Drinking Water** **SO = Solid**

EPA 504
EPA 515
EPA 524 inc MTBE
EPA 525
EPA 531
EPA 547
EPA 548
EPA 549

Sample #	# Bottles	Sampled		Sample Description / Location *	Matrix *	Comments / Station Code								
		Date	Time											
1	2/22	14:45		CX-BIWQ Zone #4 (134-144 ft bgs)	RGW	12029	✓	✓	✓	✓	✓	✓	✓	✓
				5 day TAT please										
				Conductivity 36,000 uS/cm										
Relinquished by: (Signature and Printed Name)				Company	Date	Time	Received by: (Signature and Print Name)	Company						
David Holland				MBAS	2/24	1600								
Relinquished by: (Signature and Printed Name)				Company	Date	Time	Received by: (Signature and Print Name)	Company						
Received for Lab by: (Signature and Printed Name)				Date	Time	Payment Received at Delivery:	Check/Cash/Card	P/A #	Int.					
John Hen					2/25/14	9:30								

Shipping Method: **CA9 UPS GSO WALK-IN SVC FEDEX OTHER** Cooling Method: **WEY BLUE NONE** Packing Material: **BW**

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service/shipping charges and interest calculated at 1 1/2% per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collection, including attorney's fees incurred prior to or in litigation whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/company expressly acknowledges that they are either the Client or authorized sign in the Client, and the Client agrees to be responsible for payment for analytical services on the Chain of Custody. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 3:00 pm will begin the next business day. 594-491-20 (revision)



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$ <u>3.1</u>	<u>Yes</u> No NA	Were correct containers and preservatives received for the tests requested?	<u>Yes</u> No NA
	If samples were taken today, is there evidence that chilling has begun? <u>vet</u>	Yes No <u>NA</u>	Were there bubbles in the VOA vials? (Volatiles Only)	Yes <u>No</u> <u>NA</u>
	Did all bottles arrive unbroken and intact?	<u>Yes</u> No	Was a sufficient amount of sample received?	<u>Yes</u> No
	Did all bottle labels agree with COC?	<u>Yes</u> No	Do samples have a hold time <72 hours?	Yes <u>No</u>
	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No <u>NA</u>	Was PM notified of discrepancies? PM: _____ By/Time: _____	Yes No <u>NA</u>

Bottles Received	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?				
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—				
	None (P) ^{White Cap}	—	—				
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y N				
	HNO_3 (P) ^{Red Cap}	—	—				
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y N				
	NaOH (P) ^{Green Cap}	Cl. pH ≥ 12	Y N				
	NaOH + ZnAc (P)	pH ≥ 9	Y N				
	Dissolved Oxygen 300ml (g)	—	—				
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—				
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) ^{Orange Label} 531	pH = 3	<u>Y</u> N				
	NH_4Cl (AG) ^{Purple Label} 552	—	—				
	EDA (AG) ^{Brown Label} DBPs	—	—				
	Ascorbic + Maleic (AG) ^{LI Green Label} 524.3	—	—				
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—				
	Buffer pH 4 (CG)	—	—				
	None (CG)	—	—				
	H_3PO_4 (CG) ^{Salmon Label}	—	—				
	Other:						
	Asbestos 1Liter Plastic w/ Foil	—	—				
	Low Level Hg / Metals Double Baggie	—	—				
	Bottled Water	—	—				
	Clear Glass Jar: 250 / 500 / 1 Liter	—	—				
	Soil Tube Brass / Steel / Plastic	—	—				
	Tedlar Bag / Plastic Bag	—	—				

Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials
	S P				S P	
S P				S P		

Comments

*Ceres Analytical Laboratory, Inc.
4919 Windplay Dr., Suite 1
El Dorado Hills, CA 95762*

March 3, 2014

Ceres ID: 10266

Monterey Bay Analytical
Mr. David Holland
4 Justin Court, Ste. D
Monterey, CA 93940

Mr. Holland,

Enclosed please find the results for one aqueous sample received on February 25, 2014. This sample was analyzed for 2,3,7,8-TCDD by EPA 1613. Rush 5 day turn-around time was provided for this work.

This work was authorized under M.B.A.'s Project # 12029.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

The Sample Tracking Section includes all external and internal chain of custodies, laboratory bench sheets, and any special instructions received.

If you have any questions regarding this report, please feel free to contact me at (888)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

<u>Ceres Sample ID:</u>	<u>Sample ID</u>	<u>Date Received</u>	<u>Collection Date & Time</u>
10266-001	CX-B1WQ Zone #4 (134-144ft bags)	2/25/2014	2/22/2014 14:45

Section II: Data Summary

Sample ID: Method Blank								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-MB001	Date Received:	NA
Project:	12029		Sample Size:	1.000 L	QC Batch #:	1158	Date Extracted:	28-Feb-14
Date Collected:	NA				ZB-5 MS Analysis Date:	1-Mar-14		
Time Collected:	NA							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	2.15			<u>IS</u> ¹³ C-2,3,7,8-TCDD	103	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	109	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JMH			Reviewed by:	BS			

Sample ID: Ongoing Precision and Recovery								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-OPR001	Date Received:	NA
Project:	12029		Sample Size:	1.000 L	QC Batch #:	1158	Date Extracted:	28-Feb-14
Date Collected:	NA				ZB-5 MS Analysis Date:	1-Mar-14		
Time Collected:	NA							
Analyte	Conc. (ng/ml)	Limits^a	Qualifiers		Labeled Standards	Conc.	Limits^a	Qualifiers
2,3,7,8-TCDD	9.90	7.3-14.6			IS ¹³ C-2,3,7,8-TCDD	98.3	25-141	
					CRS ³⁷ Cl ₄ -2,3,7,8-TCDD	10.1	3.7-15.8	
					<i>a. Method acceptance criteria .</i>			
Analyst: JMH				Reviewed by: BS				

Sample ID: CX-B1WQ Zone #4 (134-144ft bags)							
Client Data			Sample Data		Laboratory Data		
Name: Monterey Bay Analytical			Matrix: Aqueous		Lab Sample ID: 10266-001		Date Received: 25-Feb-14
Project: 12029			Sample Size: 1.052 L		QC Batch #: 1158		Date Extracted: 28-Feb-14
Date Collected: 22-Feb-14					ZB-5 MS Analysis Date: 1-Mar-14		
Time Collected: 14:45							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c Qualifiers
2,3,7,8-TCDD	ND	1.89			<u>IS</u> ¹³ C-2,3,7,8-TCDD	97.1	31 - 137
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	107	42 - 164
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.		
Analyst: JMH				Reviewed by: BS			

Section VI: Sample Tracking

Ceres Analytical Laboratory, Inc.

Chain of Custody

Ceres Use Only

PgAppendix G

4919 Windplay Dr. Suite 1
 El Dorado Hills, CA 95762
 Tel: (916)932-5011

Please Print in Pen

Ceres Project ID: 10266
 Temperature: 1.4 °C

Reports and invoices will be delivered by email in .pdf format

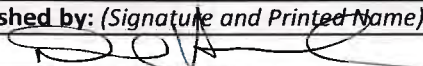

Client Information	Invoice Information (if different from Client Info)	Project Information
Company Name: <u>Monterey Bay Analytical</u> Contact Name: <u>David Holland</u> Address: <u>4 Justin Court Ste D Monterey CA 93940</u> Ph: <u>831-375-6227</u> Email: <u>montereybayanalytical@usa.net</u>	Company Name: <u>Same</u> Contact Name: _____ Address: _____ Ph: _____ Fx: _____ Email: _____	Ceres Quote #: _____ P.O. # _____ Project ID: _____ TAT (business days) _____ Std 15 days; Rush TAT available please call

Matrix abbreviations:

A: Aqueous S: Soil AS: Ash DW: Drinking Water
 E: Effluent SD: Sediment C: Clay SO: Solid
 I: Influent SL: Sludge CS: Clay Slurry O: Other (please comment)

	Sample ID	Sample Collection			Matrix	# of containers	EPA 1613	EPA 8290	NCASI 551	EPA 8280	EPA 613	Other	TEF
		Date	Time	Matrix									<input type="checkbox"/> 1998 WHO <input type="checkbox"/> 2005 WHO <input type="checkbox"/> Other
1	CX-B1WQ Zone #4 (134-144ft bags)	2/22/2014	14:45	Aq	2	X							12029
2													(2,3,7,8 TCDD only)
3													5 day Rush Please
4													
5													
6													
7													
8													
9													
10													
11													
12													

Samples will be disposed of 45 days after submission of report, unless other provisions have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (signature and Printed Name)	Date	Time
David Holland 	2/24/2014	16:00	 J M Hodin	2/25/14	10:55

Client understands that all terms described in the proposals, quotations, and/or the general terms and conditions of Ceres Analytical Laboratory will be followed.

Ceres Analytical Laboratory reserves the right to terminate its service or withhold delivery of reports, if in Ceres' discretion the terms of the project have been broken.

Sample Receipt Check List

Ceres ID: 10266	Date/Time: 2/25/14 10:55
Client Project ID: 12029	Received Temperature: 1.4°C Acceptable: <input checked="" type="radio"/> Y / <input type="radio"/> N
Chain of Custody Relinquished by signed?	<input checked="" type="radio"/> Y / <input type="radio"/> N
Custody Seals? Present?	<input type="radio"/> Y / <input type="radio"/> N
Intact?	<input type="radio"/> Y / <input type="radio"/> N
NA:	<input checked="" type="radio"/> NA
Unlabeled / Illegible Samples	<input type="radio"/> Y / <input checked="" type="radio"/> N
Proper Containers:	<input checked="" type="radio"/> Y / <input type="radio"/> N
Preservation Acceptable (Chemical or Temperature)?	<input checked="" type="radio"/> Y / <input type="radio"/> N
Drinking Water, Sodium Thiosulfate present? no residual Cl	<input type="radio"/> Y / <input checked="" type="radio"/> N / <input type="radio"/> NA
List COC discrepancies:	2/25/14
List Damaged Samples:	2/25/14

Ceres Analytical Laboratory

Process Request

Ceres ID: 10266 PB: 1158 Sample #s: 1 Due Date: 3/3/14

Matrix (circle one): Drinking Water Aqueous Effluent Influent Ash
 Solid Soil Sediment Sludge Clay/Clay Slurry Other: _____

Method (check one): 1613 2,3,7,8-TCDD 8290 2,3,7,8-TCDD
 1613 2,3,7,8-TCDD/F 8290 2,3,7,8-TCDD/F
 1613 Cl₄-Cl₈ 8290 Cl₄-Cl₈
 8280 2,3,7,8-TCDD NCASI 551
 8280 2,3,7,8-TCDD/F
 8280 Appendix IX
 8280 Cl₄-Cl₈

Instructions:

Method: 16c3
 SOP #: 30/1

Ceres Analytical Laboratory
 Sample Prep Bench Sheet

Appendix G

Ceres ID	Client ID	Ver.	wt/vol	ISS/PAR		CSS		AP	AB/AC	FC	RSS	
				chem/date/witness	chem/date/witness	chem/date/witness	chem/date/witness					
0-1158-MB001	Method Blank		1.000L	J 2/28/14 ML	J 3/1/14 ML	NA	J 3/1/14	NA	J 3/1/14 ML			
0-1158-OPR001	OPR		1.000L	(A)								
10266-1158-001	CX-B1WQ Zone #4	✓	1.052L	↓	↓	↓	↓	↓	↓	↓	↓	

Comments: (A) Spiked w/ISS

Soxhlet Start: 14:30 2/28/14
 Soxhlet Stop: 06:33 3/1/14

Samples Logged out by: J 2/28/14 11:00
 Samples Returned by: NA
 Note samples Depleted: 1^A

Sample Extracts Storage Location: Box 8
 Extracts to Instrument: 11:00 3/1/14 J
 Extracts returned to Storage Location: 08:00 3/3/14 J

Method: 1613
SOP #: 201.1

Ceres Analytical Laboratory
Sample Prep Bench Sheet

Standard	Standard ID	Vol.	Expiration Date
ISS	5031212A	10ul	3/12/14
NSS	5031212B	10ul	3/12/14
CSS	5031212C	10ul	3/12/14
RSS	5031212D	20ul	3/12/14

Solvents/Solutions/Packing Materials

Name	Amount	Lot #	Exp. Date
Toluene	450ml	P80057902A	8/17/14
Hexane	30,30,100,20	176735	8/10/14
Sigel	4g	P024514A	8/5/14
Basic Gel	4g	P012014A	7/20/14
Acid Gel	8g	P012014B	7/20/14
Acid A1	6g	P020414A	8/4/14
Na2SO4	1.5g	P120413A	6/4/14
20% Dec Hex	30ml	L021914A	8/19/14

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*	Results taken from dilution.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery

CERTIFICATE OF ANALYSIS

Client: Monterey Bay Analytical Services 4 Justin Court, Suite D Monterey CA, 93940	Report Date: 03/04/14 21:16
Attention: David Holland	Received Date: 02/25/14 09:40
Phone: (831) 375-6227	Turn Around: 5 workdays
Fax: (831) 641-0734	Client Project: Cal Am
Work Order(s): 4B25019	

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear David Holland :

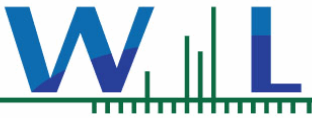
Enclosed are the results of analyses for samples received 02/25/14 09:40 with the Chain of Custody document. The samples were received in good condition, at 4.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager





Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

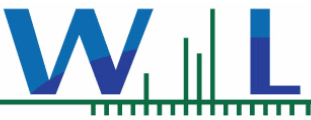
ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
CX-B1WQ Zone #4 (134-144 ft bgs)	Nathan Reynolds	12029	4B25019-01	Water	02/22/14 14:45

ANALYSES

Anions by IC, EPA Method 300.0/300.1/326

Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

4B25019-01 CX-B1WQ Zone #4 (134-144 ft bgs)

Sampled: 02/22/14 14:45

Sampled By: Nathan Reynolds

Matrix: Water

Sample Note: 12029

Anions by IC, EPA Method 300.0/300.1/326

Method: EPA 9056A

Batch: W4C0014

Prepared: 03/01/14 11:00

Analyst: atl

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Iodide	ND	10	250	ug/l	25	03/01/14 18:00	M-05

Chlorinated Pesticides and/or PCBs

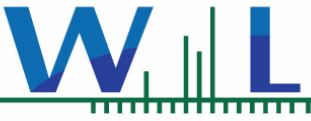
Method: EPA 508

Batch: W4B1139

Prepared: 02/26/14 08:25

Analyst: mxw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
4,4'-DDD	ND	0.010	ug/l	1	02/28/14 22:17	
4,4'-DDE	ND	0.010	ug/l	1	02/28/14 22:17	
4,4'-DDT	ND	0.010	ug/l	1	02/28/14 22:17	
Aldrin	ND	0.010	ug/l	1	02/28/14 22:17	
alpha-BHC	ND	0.010	ug/l	1	02/28/14 22:17	
Aroclor 1016	ND	0.10	ug/l	1	02/28/14 22:17	
Aroclor 1221	ND	0.10	ug/l	1	02/28/14 22:17	
Aroclor 1232	ND	0.10	ug/l	1	02/28/14 22:17	
Aroclor 1242	ND	0.10	ug/l	1	02/28/14 22:17	
Aroclor 1248	ND	0.10	ug/l	1	02/28/14 22:17	
Aroclor 1254	ND	0.10	ug/l	1	02/28/14 22:17	
Aroclor 1260	ND	0.10	ug/l	1	02/28/14 22:17	
beta-BHC	ND	0.010	ug/l	1	02/28/14 22:17	
Chlordane (tech)	ND	0.10	ug/l	1	02/28/14 22:17	
Chlorothalonil	ND	0.050	ug/l	1	02/28/14 22:17	
delta-BHC	ND	0.010	ug/l	1	02/28/14 22:17	
Dieldrin	ND	0.010	ug/l	1	02/28/14 22:17	
Endosulfan I	ND	0.010	ug/l	1	02/28/14 22:17	
Endosulfan II	ND	0.010	ug/l	1	02/28/14 22:17	
Endosulfan sulfate	ND	0.010	ug/l	1	02/28/14 22:17	
Endrin	ND	0.010	ug/l	1	02/28/14 22:17	
Endrin aldehyde	ND	0.010	ug/l	1	02/28/14 22:17	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	02/28/14 22:17	
Heptachlor	ND	0.010	ug/l	1	02/28/14 22:17	
Heptachlor epoxide	ND	0.010	ug/l	1	02/28/14 22:17	
Hexachlorobenzene	ND	0.010	ug/l	1	02/28/14 22:17	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	02/28/14 22:17	
Methoxychlor	ND	0.010	ug/l	1	02/28/14 22:17	
PCBs, Total	ND	0.50	ug/l	1	02/28/14 22:17	
Propachlor	ND	0.050	ug/l	1	02/28/14 22:17	
Toxaphene	ND	1.0	ug/l	1	02/28/14 22:17	
Trifluralin	ND	0.010	ug/l	1	02/28/14 22:17	
Surr: Decachlorobiphenyl	72 %	Conc:0.0690	70-130	%		
Surr: Tetrachloro-meta-xylene	79 %	Conc:0.0752	70-130	%		



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

4B25019-01 CX-B1WQ Zone #4 (134-144 ft bgs)

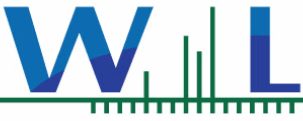
Sampled: 02/22/14 14:45

Sampled By: Nathan Reynolds

Matrix: Water

Sample Note: 12029

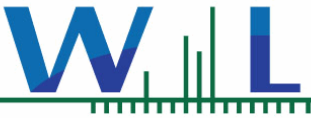
Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

QUALITY CONTROL SECTION



Monterey Bay Analytical Services
 4 Justin Court, Suite D
 Monterey CA, 93940

Date Received: 02/25/14 09:40
 Date Reported: 03/04/14 21:16

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

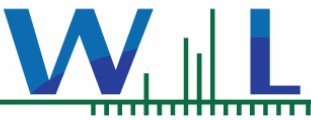
Batch W4C0014 - EPA 9056A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4C0014-BLK1)				Analyzed: 03/01/14 18:00						
Iodide	ND	10	ug/l							
LCS (W4C0014-BS1)				Analyzed: 03/01/14 18:00						
Iodide	45.0	10	ug/l	40.0		113	85-115			
Matrix Spike (W4C0014-MS1)				Source: 4B25020-01 Analyzed: 03/01/14 18:00						
Iodide	836	250	ug/l	1000	161	68	80-120			MS-01
Matrix Spike Dup (W4C0014-MSD1)				Source: 4B25020-01 Analyzed: 03/01/14 18:00						
Iodide	984	250	ug/l	1000	161	82	80-120	16	20	

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B1139 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B1139-BLK1)				Analyzed: 02/28/14 16:10						
4,4'-DDD	ND	0.010	ug/l							
4,4'-DDE	ND	0.010	ug/l							
4,4'-DDT	ND	0.010	ug/l							
Aldrin	ND	0.010	ug/l							
alpha-BHC	ND	0.010	ug/l							
Aroclor 1016	ND	0.10	ug/l							
Aroclor 1221	ND	0.10	ug/l							
Aroclor 1232	ND	0.10	ug/l							
Aroclor 1242	ND	0.10	ug/l							
Aroclor 1248	ND	0.10	ug/l							
Aroclor 1254	ND	0.10	ug/l							
Aroclor 1260	ND	0.10	ug/l							
beta-BHC	ND	0.010	ug/l							
Chlordane (tech)	ND	0.10	ug/l							
Chlorothalonil	ND	0.050	ug/l							
delta-BHC	ND	0.010	ug/l							
Dieldrin	ND	0.010	ug/l							
Endosulfan I	ND	0.010	ug/l							
Endosulfan II	ND	0.010	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							
Endrin	ND	0.010	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.010	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.010	ug/l							
Hexachlorobenzene	ND	0.010	ug/l							
Hexachlorocyclopentadiene	ND	0.050	ug/l							
Methoxychlor	ND	0.010	ug/l							
PCBs, Total	ND	0.50	ug/l							



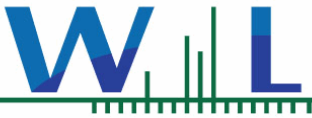
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B1139 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B1139-BLK1)										
Analyzed: 02/28/14 16:10										
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
<i>Surr: Decachlorobiphenyl</i>	0.0947		ug/l	0.100		95	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0904		ug/l	0.100		90	70-130			
LCS (W4B1139-BS1)										
Analyzed: 02/28/14 17:42										
4,4'-DDD	0.0801	0.010	ug/l	0.100		80	55-142			
4,4'-DDE	0.0848	0.010	ug/l	0.100		85	49-129			
4,4'-DDT	0.0979	0.010	ug/l	0.100		98	54-160			
Aldrin	0.0759	0.010	ug/l	0.100		76	29-115			
alpha-BHC	0.0802	0.010	ug/l	0.100		80	59-131			
beta-BHC	0.0789	0.010	ug/l	0.100		79	63-136			
delta-BHC	0.0881	0.010	ug/l	0.100		88	59-137			
Dieldrin	0.0832	0.010	ug/l	0.100		83	59-135			
Endosulfan I	0.0689	0.010	ug/l	0.100		69	28-138			
Endosulfan II	0.0754	0.010	ug/l	0.100		75	53-133			
Endosulfan sulfate	0.0877	0.010	ug/l	0.100		88	58-155			
Endrin	0.0585	0.010	ug/l	0.100		59	57-148			
Endrin aldehyde	0.0597	0.010	ug/l	0.100		60	45-139			
gamma-BHC (Lindane)	0.0802	0.010	ug/l	0.100		80	59-129			
Heptachlor	0.0817	0.010	ug/l	0.100		82	42-136			
Heptachlor epoxide	0.0809	0.010	ug/l	0.100		81	59-134			
Methoxychlor	0.0870	0.010	ug/l	0.100		87	56-167			
<i>Surr: Decachlorobiphenyl</i>	0.0903		ug/l	0.100		90	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0827		ug/l	0.100		83	70-130			
LCS Dup (W4B1139-BSD1)										
Analyzed: 02/28/14 17:11										
4,4'-DDD	0.0789	0.010	ug/l	0.100		79	55-142	2	25	
4,4'-DDE	0.0850	0.010	ug/l	0.100		85	49-129	0.2	25	
4,4'-DDT	0.0947	0.010	ug/l	0.100		95	54-160	3	25	
Aldrin	0.0777	0.010	ug/l	0.100		78	29-115	2	25	
alpha-BHC	0.0813	0.010	ug/l	0.100		81	59-131	1	25	
beta-BHC	0.0799	0.010	ug/l	0.100		80	63-136	1	25	
delta-BHC	0.0883	0.010	ug/l	0.100		88	59-137	0.3	25	
Dieldrin	0.0844	0.010	ug/l	0.100		84	59-135	1	25	
Endosulfan I	0.0700	0.010	ug/l	0.100		70	28-138	2	25	
Endosulfan II	0.0756	0.010	ug/l	0.100		76	53-133	0.3	25	
Endosulfan sulfate	0.0871	0.010	ug/l	0.100		87	58-155	0.7	25	
Endrin	0.0740	0.010	ug/l	0.100		74	57-148	23	25	
Endrin aldehyde	0.0748	0.010	ug/l	0.100		75	45-139	22	25	
gamma-BHC (Lindane)	0.0813	0.010	ug/l	0.100		81	59-129	1	25	
Heptachlor	0.0828	0.010	ug/l	0.100		83	42-136	1	25	
Heptachlor epoxide	0.0816	0.010	ug/l	0.100		82	59-134	0.8	25	
Methoxychlor	0.0835	0.010	ug/l	0.100		84	56-167	4	25	
<i>Surr: Decachlorobiphenyl</i>	0.172		ug/l	0.200		86	70-130			



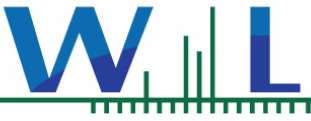
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B1139 - EPA 508

Analyte	Reporting Result	Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W4B1139-BSD1)				Analyzed: 02/28/14 17:11						
<i>Surr: Tetrachloro-meta-xylene</i>	0.161		ug/l	0.200		81	70-130			



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:16

Notes and Definitions

MS-01	The spike recovery for this QC sample is outside of established control limits possibly due to sample matrix interference.
M-05	Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

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pH QC Summary (SM 4500 H+)

Date Analyzed: 2/22/2014

	Value (pH Units)	Result (pH Units)	% Rec	Acceptance Criteria %Rec
IPC	6.86	6.87	100.1	95-105

Sample ID	Sample (pH Units)	Sample Dup (pH Units)	% RPD	Acceptance Criteria % RPD
AB12029	6.9	6.9	0.0	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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MBAS QC Summary (SM 5540C)

Date Analyzed: 2/23/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	0.100	0.087	87	80-120

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

300.0 QC Summary

All units expressed in mg/L

	F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
	2	20	2	20	2	2	2
IPC	1.96	19.40	2.07	19.27	2.02	1.90	1.70
Recovery 90-110%	97.88	97.02	103.50	96.34	100.94	95.24	85.13
CCV1	1.93	19.49	2.08	19.43	2.03	1.92	1.79
Recovery 90-110%	96.57	97.43	104.18	97.15	101.47	95.84	89.38
RPD 10%	1.34	0.42	0.65	0.84	0.52	0.63	4.87

	F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
	2	20	2	20	2	2	2
AB12026	0.11	70.57	0.24	35.16	0.02	7.60	0.00
AB12026+LFM	2.07	90.75	1.93	54.67	1.78	9.82	1.32
AB12026+LFMD	2.03	90.42	1.90	54.28	1.75	9.80	1.31
Average	2.05	90.59	1.91	54.48	1.76	9.81	1.31
Recovery 80-120%	96.94	100.07	83.77	96.59	87.18	110.54	65.65
RPD 10%	1.62	0.36	1.66	0.72	1.62	0.20	0.57

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Specific Conductance QC Summary (SM 2510B)

Date Analyzed: 2/24/2014

	Value (umhos/cm)	Result (umhos/cm)	% Rec	Acceptance Criteria %Rec
IPC	1412	1412	100.0%	95-105

Sample ID	Sample (umhos/cm)	Sample Dup (umhos/cm)	% RPD	Acceptance Criteria % RPD
AB12170	2780	2782	0.1%	10
AB12203	118	118	0.0%	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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Turbidity QC Summary (EPA 180.1)

Date Analyzed: 2/24/2014

	Value (NTU)	Result (NTU)	% Rec	Acceptance Criteria %Rec
IPC	1.00	1.01	101.0	95-105

Sample ID	Sample (NTU)	Sample Dup (NTU)	% RPD	Acceptance Criteria % RPD
AB12030	0.77	0.78	0.9	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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TDS/TSS QC Summary (SM 2540C/D)

Date Analyzed: 2/25/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC 100	100	106	106	80-120
IPC 500	500	500	100	90-110

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12141	186	191	2.7	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference

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Kjehldahl Nitrogen QC Summary (SM 4500-NH3)

Date: 2/25/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	5.0	4.820	96.4	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB11639	29.800	5.000	34.800	35.200	100	108	1.1	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

Batch # 20140225

Analyte/ WL	Range	IC	Prep	LCS	%Rec	LCSD	%Rec	%Diff	IC Verification			QCS (95-105%)		
		Blank	Blank	Value	85-115%	Value	85-115%		Value	Result	%Rec	Value	Result	%Rec
B 249.678	0.05-5ppm	0.00	0.00	1.03	103.3%	1.04	104.1%	0.7%	1	1.01	100.8%	1	0.99	99.3%
B 249.772	0.05-5ppm	0.00	0.00	1.03	102.7%	1.04	103.9%	1.2%	1	1.00	99.5%	1	0.99	99.1%
Ca 317.933	50-300ppm	-4.32	-4.33	49.6	99.3%	50.9	101.7%	2.4%	50	49.1	98.3%	50	48.7	97.4%
Ca 396.847	0.5-50ppm	-0.23	-0.24	50.1	100.3%	51.1	102.3%	2.0%	50	49.7	99.5%	50	49.5	99.1%
Cu 324.754	10ppb-100ppm	-7.83	-9.32	1008	100.8%	1031	103.1%	2.3%	1000	989	98.9%	1000	1002	100.2%
Cu 327.395	10ppb-100ppm	-3.71	-2.81	1018	101.8%	1037	103.7%	1.8%	1000	989	98.9%	1000	1005	100.5%
Fe 238.204	10ppb-100ppm	-0.01	0.65	998	99.8%	1008	100.8%	1.1%	1000	985	98.5%	1000	980	98.0%
Fe 259.940	10ppb-100ppm	-1.92	-2.32	1008	100.8%	1025	102.5%	1.6%	1000	992	99.2%	1000	995	99.5%
K 766.491	0.5-750ppm	0.06	0.04	9.9	99.2%	10.2	101.9%	2.7%	10	9.9	98.6%	10	9.9	98.9%
Mg 202.582	50-1000ppm	-1.92	-1.95	51.3	102.7%	51.9	103.8%	1.1%	50	50.1	100.3%	50	50.2	100.3%
Mg 279.076	0.5-50ppm	0.04	0.01	50.3	100.5%	50.8	101.6%	1.1%	50	49.3	98.7%	50	49.1	98.2%
Mn 257.610	10ppb-11ppm	-6.24	-6.61	1005	100.5%	1021	102.1%	1.5%	1000	988	98.8%	1000	978	97.8%
Mn 260.560	10ppb-11ppm	-6.06	-6.71	1006	100.6%	1015	101.5%	0.9%	1000	986	98.6%	1000	974	97.4%
Na 568.821	50-1000ppm	8.44	6.58	51.4	102.7%	54.1	108.1%	5.1%	50	50.7	101.3%	50	51.1	102.2%
Na 589.592	0.5-50ppm	0.11	0.04	49.9	99.9%	51.4	102.8%	2.9%	50	49.7	99.4%	50	49.6	99.1%
Si 251.611	0.5-200ppm	0.03	-0.03	51.1	102.3%	51.4	102.7%	0.4%	50	49.4	98.8%	107	105.0	98.2%
Si 252.411	0.5-200ppm	0.07	-0.01	50.9	101.8%	51.3	102.5%	0.7%	50	49.2	98.5%	107	105.0	98.1%
Zn 213.857	10ppb-50ppm	-12.44	-12.72	999	99.9%	1008	100.8%	0.9%	1000	974	97.4%	1000	967	96.7%

Matrix Spikes

Sample ID AB12040

Analyte/ WL	Sample Value	MS	%Rec	MSD	%Rec	%Diff	CCV (90-110%)			%Diff	CC
		Value	70-130%	Value	70-130%		Value	Result	%Rec	10%	Blank
B 249.678	0.09	1.12	102.9%	1.09	100.2%	2.5%	1	1.04	104.1%	3.3%	0.00
B 249.772	0.09	1.13	103.9%	1.11	101.8%	1.8%	1	1.06	105.6%	5.9%	0.00
Ca 317.933	136.6	186.1	99.0%	184.0	94.8%	1.1%	50	50.3	100.6%	2.3%	-4.35
Ca 396.847	115.2	149.6	68.7%	148.1	65.8%	1.0%	50	50.4	100.9%	1.4%	-0.25
Cu 324.754	31	1071	104.0%	1053	102.2%	1.7%	1000	1012	101.2%	2.3%	-7.80
Cu 327.395	34	1106	107.2%	1085	105.1%	1.9%	1000	1037	103.7%	4.8%	-7.04
Fe 238.204	761	1738	97.7%	1717	95.6%	1.2%	1000	1004	100.4%	1.9%	-2.79
Fe 259.940	775	1772	99.7%	1754	97.9%	1.0%	1000	1007	100.7%	1.4%	-1.97
K 766.491	3.6	13.9	103.1%	13.7	100.5%	1.9%	10	10.1	100.9%	2.2%	0.07

Mg 202.582	23.1	77.8	109.6%	76.7	107.4%	1.4%	50	52.5	105.0%	4.6%	-1.95
Mg 279.074	22.7	73.2	101.0%	72.2	99.0%	1.4%	50	50.3	100.6%	1.9%	0.01
Mn 257.610	87	1104	101.7%	1090	100.3%	1.3%	1000	1011	101.1%	2.3%	-7.07
Mn 260.568	89	1111	102.2%	1097	100.8%	1.3%	1000	1017	101.7%	3.1%	-7.40
Na 568.821	96.9	149.1	104.3%	145.2	96.5%	2.7%	50	55.1	110.2%	8.4%	6.53
Na 589.592	90.0	140.9	101.7%	138.3	96.6%	1.8%	50	51.5	103.0%	3.6%	0.44
Si 251.611	31.0	81.6	101.1%	80.6	99.0%	1.3%	50	52.4	104.8%	5.9%	-0.08
Si 252.411	30.5	79.8	98.4%	78.6	96.2%	1.4%	50	51.2	102.3%	3.8%	-0.02
Zn 213.857	22	1051	102.9%	1040	101.8%	1.0%	1000	1013	101.3%	3.9%	-16.83

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Ammonia by Electrode QC Summary (SM 4500-NH3)

Date: 3/5/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC Low	0.050	0.043	86	90-110
IPC	0.500	0.462	92.4	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12148	0.020	0.500	0.536	0.550	103.2	106	2.6	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; IPC = Instrument Performance Check

RPD = Relative Percent Difference; Rec = Recovery



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1402896

Report Created for: Monterey Bay Analytical
4 Justin Court, Suite D
Monterey, CA 93940

Project Contact: David Holland

Project P.O.:

Project Name: CalAm

Project Received: 02/26/2014

Analytical Report reviewed & approved for release on 02/28/2014 by:

Question about
your data?

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: CalAm

WorkOrder: 1402896

Glossary

Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical

Qualifier

a1 sample diluted due to matrix interference



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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: Monterey Bay Analytical

WorkOrder: 1402896

Project: CalAm

Extraction Method: E200.8

Date Received: 2/26/14 11:35

Analytical Method: E200.8

Date Prepared: 2/26/14

Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #2 (237-247 ft bgs) (dissol	1402896-002A	Water/DISS.	02/19/2014 16:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	210	100	20	02/27/2014 19:31
Strontium	11,000	400	20	02/27/2014 19:31

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #3 (182-192 ft bgs) (dissol	1402896-004A	Water/DISS.	02/21/2014 13:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	ND	100	20	02/27/2014 14:48
Strontium	12,000	400	20	02/27/2014 14:48

Analytical Comments: a1

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #4 (134-144 ft bgs) (dissol	1402896-006A	Water/DISS.	02/22/2014 14:45	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	120	100	20	02/27/2014 19:37
Strontium	9400	400	20	02/27/2014 19:37

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #5 (84-94 ft bgs) (dissolve	1402896-008A	Water/DISS.	02/23/2014 16:20	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	ND	100	20	02/27/2014 19:43
Strontium	10,000	400	20	02/27/2014 19:43

Analytical Comments: a1

(Cont.)



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Analytical Report

Client: Monterey Bay Analytical

WorkOrder: 1402896

Project: CalAm

Extraction Method: E200.8

Date Received: 2/26/14 11:35

Analytical Method: E200.8

Date Prepared: 2/26/14

Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #6 (51-61 ft bgs) (dissolve	1402896-010A	Water/DISS.	02/25/2014 09:10	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Barium	100		100	20	02/27/2014 19:48
Strontium	9500		400	20	02/27/2014 19:48



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Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #2 (237-247 ft bgs)	1402896-001A	Water/TOTAL	02/19/2014 16:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	1000	20	02/27/2014 15:23
Arsenic	ND	10	20	02/27/2014 15:23
Copper	ND	10	20	02/27/2014 15:23
Lithium	120	100	20	02/27/2014 15:23
Zinc	ND	100	20	02/27/2014 15:23
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	104	70-130	02/27/2014 15:23	

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #3 (182-192 ft bgs)	1402896-003A	Water/TOTAL	02/21/2014 13:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	1000	20	02/27/2014 15:28
Arsenic	ND	10	20	02/27/2014 15:28
Copper	ND	10	20	02/27/2014 15:28
Lithium	140	100	20	02/27/2014 15:28
Zinc	ND	100	20	02/27/2014 15:28
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	111	70-130	02/27/2014 15:28	

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #4 (134-144 ft bgs)	1402896-005A	Water/TOTAL	02/22/2014 14:45	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	1000	20	02/27/2014 15:34
Arsenic	ND	10	20	02/27/2014 15:34
Copper	ND	10	20	02/27/2014 15:34
Lithium	120	100	20	02/27/2014 15:34
Zinc	ND	100	20	02/27/2014 15:34
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	104	70-130	02/27/2014 15:34	

(Cont.)



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Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #5 (84-94 ft bgs)	1402896-007A	Water/TOTAL	02/23/2014 16:20	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aluminum	ND		1000	20	02/27/2014 15:40
Arsenic	ND		10	20	02/27/2014 15:40
Copper	ND		10	20	02/27/2014 15:40
Lithium	170		100	20	02/27/2014 15:40
Zinc	ND		100	20	02/27/2014 15:40
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	109		70-130		02/27/2014 15:40
CX-BIWQ Zone #6 (51-61 ft bgs)	1402896-009A	Water/TOTAL	02/25/2014 09:10	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aluminum	ND		1000	20	02/27/2014 15:45
Arsenic	ND		10	20	02/27/2014 15:45
Copper	ND		10	20	02/27/2014 15:45
Lithium	140		100	20	02/27/2014 15:45
Zinc	ND		100	20	02/27/2014 15:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	110		70-130		02/27/2014 15:45



Quality Control Report

Client: Monterey Bay Analytical
Date Prepared: 2/26/14
Date Analyzed: 2/27/14
Instrument: ICP-MS1
Matrix: Water
Project: CalAm

WorkOrder: 1402896
BatchID: 87508
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L
Sample ID: MB/LCS-87508
 1402903-004CMS/MSD

QC Summary Report for E200.8

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aluminum	ND	475.4	50	500	-	95.1	85-115
Arsenic	ND	46.74	0.50	50	-	93.5	85-115
Barium	ND	451.9	5.0	500	-	90.4	85-115
Copper	ND	48.31	0.50	50	-	96.6	85-115
Lithium	ND	47.95	5.0	50	-	95.9	85-115
Strontium	ND	496	20	500	-	99.2	85-115
Zinc	ND	489.9	5.0	500	-	98	85-115

Surrogate Recovery

Tb 350.917	695.7	710.9		750	93	95	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aluminum	1373	1438	500	863.6	102	115	70-130	4.62	20
Arsenic	47.91	48.87	50	0.84	94.1	96.1	70-130	1.98	20
Barium	473.2	485.6	500	18	91	93.5	70-130	2.59	20
Copper	60.61	62.62	50	13.01	95.2	99.2	70-130	3.26	20
Lithium	49.57	51.07	50	ND	99.1	102	70-130	2.98	20
Strontium	532.9	553	500	36	99.4	103	70-130	3.70	20
Zinc	632.5	641.6	500	118.4	103	105	70-130	1.43	20

Surrogate Recovery

Tb 350.917	712.5	731	750		95	97	70-130	2.56	20
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McCampbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1402896

ClientCode: MBAS

WaterTrax WriteOn EDF Excel EQuIS Email HardCopy ThirdParty J-flag

Report to:

David Holland
Monterey Bay Analytical
4 Justin Court, Suite D
Monterey, CA 93940
831-375-6227 FAX: 831-641-0734

Email: 4mbas@sbcglobal.net
cc:
PO:
ProjectNo: CalAm

Bill to:

Accounts Payable
Monterey Bay Analytical
4 Justin Court, Suite D
Monterey, CA 93940

Requested TAT:

3 days

Date Received: 02/26/2014

Date Printed: 02/26/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1402896-001	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	2/19/2014 16:10	<input type="checkbox"/>		A											
1402896-002	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	2/19/2014 16:10	<input type="checkbox"/>	A												
1402896-003	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	2/21/2014 13:10	<input type="checkbox"/>		A											
1402896-004	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	2/21/2014 13:10	<input type="checkbox"/>	A												
1402896-005	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	2/22/2014 14:45	<input type="checkbox"/>		A											
1402896-006	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	2/22/2014 14:45	<input type="checkbox"/>	A												
1402896-007	CX-BIWQ Zone #5 (84-94 ft bgs)	Water	2/23/2014 16:20	<input type="checkbox"/>		A											
1402896-008	CX-BIWQ Zone #5 (84-94 ft bgs) (dissolved)	Water	2/23/2014 16:20	<input type="checkbox"/>	A												
1402896-009	CX-BIWQ Zone #6 (51-61 ft bgs)	Water	2/25/2014 9:10	<input type="checkbox"/>		A											
1402896-010	CX-BIWQ Zone #6 (51-61 ft bgs) (dissolved)	Water	2/25/2014 9:10	<input type="checkbox"/>	A												

Test Legend:

1	METALSMS_DISS	2	METALSMS_W	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Jena Alfaro

Comments: Needs analysts initials for all reports per D.H. 4/5/13

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: MONTEREY BAY ANALYTICAL

QC Level: LEVEL 2

Work Order: 1402896

Project: CalAm

Client Contact: David Holland

Date Received: 2/26/2014

Comments: Needs analysts initials for all reports per D.H. 4/5/13

Contact's Email: 4mbas@sbcglobal.net

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1402896-001A	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/19/2014 16:10	3 days	None	<input type="checkbox"/>	
1402896-002A	CX-BIWQ Zone #2 (237-247 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/19/2014 16:10	3 days	None	<input type="checkbox"/>	
1402896-003A	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/21/2014 13:10	3 days	None	<input type="checkbox"/>	
1402896-004A	CX-BIWQ Zone #3 (182-192 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/21/2014 13:10	3 days	None	<input type="checkbox"/>	
1402896-005A	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/22/2014 14:45	3 days	None	<input type="checkbox"/>	
1402896-006A	CX-BIWQ Zone #4 (134-144 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/22/2014 14:45	3 days	None	<input type="checkbox"/>	
1402896-007A	CX-BIWQ Zone #5 (84-94 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/23/2014 16:20	3 days	None	<input type="checkbox"/>	
1402896-008A	CX-BIWQ Zone #5 (84-94 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/23/2014 16:20	3 days	None	<input type="checkbox"/>	
1402896-009A	CX-BIWQ Zone #6 (51-61 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/25/2014 9:10	3 days	None	<input type="checkbox"/>	
1402896-010A	CX-BIWQ Zone #6 (51-61 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/25/2014 9:10	3 days	None	<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

125mL HDPE w/ HNO3 = 125mL HDPE Bottle w/ Nitric Acid

250mL HDPE w/ HNO3 = 250mL HDPE Bottle w/ HNO3



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical** Date and Time Received: **2/26/2014 11:35:12 AM**
 Project Name: **CalAm** LogIn Reviewed by: **Jena Alfaro**
 WorkOrder N°: **1402896** Matrix: Water Carrier: UPS

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

* NOTE: If the "No" box is checked, see comments below.

 Comments:

Cal Am Water Company
 Travis Peterson
 511 Pacific Lodge Road, Suite 100
 Pacific Grove, CA 93950

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS
 montereybayanalytical@usa.net

ELAP Certification Number: 2385

Lab Number: AB12030

Collection Date/Time: 2/23/2014 16:20 Sample Collector: NATHAN REYNOL
 Submittal Date/Time: 2/23/2014 17:42 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-B1WQ Zone # 5 (84 - 94 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	126		2		2/24/2014	LRH
Aluminum, Total	EPA200.8	ug/L	Not Detected		10	1000	2/27/2014	MC LAB
Ammonia-N, Dissolved	SM4500NH3 D	mg/L	Not Detected		0.05		3/5/2014	DH
Arsenic, Total	EPA200.8	ug/L	Not Detected		1	10	2/27/2014	MC LAB
Barium, Dissolved	EPA200.8	ug/L	Not Detected		10		2/27/2014	MC LAB
Bicarbonate (as HCO3-)	SM2320B	mg/L	154		10		2/25/2014	SM
Boron, Dissolved	EPA200.7	mg/L	2.80		0.05		2/25/2014	DC
Bromide, Dissolved	EPA300.0	mg/L	41		0.1		2/23/2014	DH
Calcium	EPA200.7	mg/L	674		0.5		2/25/2014	DC
Calcium, Dissolved	EPA200.7	mg/L	656		0.5		2/25/2014	DC
Carbamates by HPLC (EPA 531)	EPA531	ug/L	Not Detected	E			2/26/2014	BSK
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		2/25/2014	SM
Chloride, Dissolved	EPA300.0	mg/L	14755		1		2/23/2014	DH
Chlorinated Pesticides and PCB (EP	EPA508	ug/L	Not Detected	E			2/28/2014	WECK
Color, Apparent (Unfiltered)	SM2120B	Color Units	5		3	15	2/23/2014	DH
Copper, Total	EPA200.8	ug/L	Not Detected		4	1300	2/27/2014	MC LAB
DBCP & EDB	EPA504.1	ug/L	Not Detected	E			2/26/2014	BSK
Dioxin	EPA-5 1613B	pg/L	Not Detected				2/28/2014	CERES
Diquat (EPA 549)	EPA549	ug/L	Not Detected	E			2/28/2014	BSK
Dissolved Anions		Meq/L	458.5				3/6/2014	DH
Dissolved Cations		Meq/L	464.6				3/6/2014	DH
Endothall	EPA548.1	ug/L	Not Detected	E			2/26/2014	BSK
Fluoride, Dissolved	EPA300.0	mg/L	0.4		0.1		2/23/2014	DH
Glyphosate	EPA547	ug/L	Not Detected	E			3/1/2014	BSK
Hardness (as CaCO3)	SM2340B	mg/L	6748		10		3/6/2014	DH
Hydroxide	SM2320B	mg/L	Not Detected		5		2/25/2014	SM
Iodide	EPA9056M	ug/L	160	E	10		3/1/2014	WECK
Iron	EPA200.7	ug/L	178		10	300	2/25/2014	DC
Iron, Dissolved	EPA200.7	ug/L	171		10	300	2/25/2014	DC
Kjehldahl Nitrogen, Dissolved	SM4500-NH3 B,	mg/L	0.5	J	0.5		2/25/2014	HM
Lithium	EPA200.8	ug/L	170		1		2/27/2014	MC LAB
Magnesium	EPA200.7	mg/L	1230		0.5		2/25/2014	DC
Magnesium, Dissolved	EPA200.7	mg/L	1215		1		2/25/2014	DC
Manganese, Dissolved	EPA200.7	ug/L	Not Detected		10	50	2/25/2014	DC
Manganese, Total	EPA200.7	ug/L	78		10	50	2/25/2014	DC
MBAS (Surfactants)	SM5540C	mg/L	Not Detected		0.05	0.50	2/23/2014	DH
Nitrate as NO3	EPA300.0	mg/L	2		1	45	2/23/2014	DH
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4		0.1		2/23/2014	DH
Nitrite as NO2-N, Dissolved	EPA300.0	mg/L	Not Detected		0.1		2/23/2014	DH

Lab Number: AB12030

Appendix G

Collection Date/Time: 2/23/2014 16:20
Submittal Date/Time: 2/23/2014 17:42Sample Collector: NATHAN REYNOL
Sample ID: GEOSCIENCE

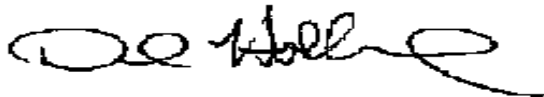
Coliform Designation:

Sample Description: CX-B1WQ Zone # 5 (84 - 94 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Odor Threshold at 60 C	SM2150B	TON	1		1	3	2/23/2014	DH
o-Phosphate-P, Dissolved	Hach 8190	mg/L	0.07		0.1		2/24/2014	DH
pH (Field Test)	SM4500-H+B	pH	7.05				2/23/2014	NR
pH (Laboratory)	SM4500-H+B	pH (H)	7.2				2/23/2014	DH
Phenoxy Acid Herbicides (515.3)	EPA515.3	ug/L	Not Detected	E			3/2/2014	BSK
Phosphorus, Dissolved	HACH 8190	mg/L	0.07		0.03		2/24/2014	DH
Potassium	EPA200.7	mg/L	261		0.5		2/25/2014	DC
Potassium, Dissolved	EPA200.7	mg/L	221		0.1		2/25/2014	DC
QC Ratio TDS/SEC	Calculation		0.67				2/27/2014	SM
Reg. Org. Compounds (EPA 525)	EPA525	ug/L	Not Detected	E			2/26/2014	BSK
Silica as SiO2, Dissolved	EPA200.7	mg/L	19		0.5		2/25/2014	DC
Sodium	EPA200.7	mg/L	8444		0.5		2/25/2014	DC
Sodium, Dissolved	EPA200.7	mg/L	7500		0.5		3/5/2014	DC
Specific Conductance (E.C)	SM2510B	umhos/cm	40900		1	900	2/24/2014	HM
Specific Conductance (E.C) (Field)	SM2510B	umhos/cm	41336		1		2/23/2014	NR
Strontium, Dissolved	EPA200.8	ug/L	10000		5		2/27/2014	MC LAB
Sulfate	EPA300.0	mg/L	1882		1	250	2/23/2014	DH
Temperature (Field)	SM2550	° C	17.2				2/23/2014	NR
Total Cations		Meq/L	463.4				3/6/2014	DH
Total Diss. Solids	SM2540C	mg/L	27400		10	500	2/25/2014	HM
Turbidity	EPA180.1	NTU	0.75		0.05	5.0	2/24/2014	LRH
Turbidity (Field)	EPA180.1	NTU	0.47		0.05		2/23/2014	NR
Volatile Org. Compounds (524)	EPA524	ug/L	Not Detected	E			2/26/2014	BSK
Zinc, Total	EPA200.8	ug/L	Not Detected		10	5000	2/27/2014	MC LAB

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12030 Zone #5 Dissolvec**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	7500	0.04350	326.25
Potassium	221	0.02558	5.65
Calcium	656	0.04990	32.73
Magnesium	1215	0.08229	99.98
NH3-N	0	0.07143	0.00
		SUM	464.62

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	126	0.02000	2.52
Sulfate	1882	0.02082	39.18
Chloride	14755	0.02821	416.24
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0.4	0.07138	0.03
Phosphate-P	0.1	0.01031	0.00
Fluoride	0.4	0.05264	0.02
Bromide	41.0	0.01252	0.51
		SUM	458.51

ANION-CATION BALANCE **1** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	40900	
Cation Sum X 100	46462	114%
Anion Sum X 100	45851	112%

Note: In Natural Waters, Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	40.1
Ca+Mg+Na	458.97
HCO ₃ /Ca	0.08
dS/m	40.90
Value Table II	1.5
SAR adj	45.8

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12030 Zone #5 Total**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	8444	0.04350	367.31
Potassium	261	0.02558	6.68
Calcium	674	0.04990	33.63
Magnesium	1230	0.08229	101.22
NH3-N	0	0.07143	0.00
		SUM	508.84

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	126	0.02000	2.52
Sulfate	1882	0.02082	39.18
Chloride	14755	0.02821	416.24
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0.4	0.07138	0.03
Phosphate-P	0.1	0.01031	0.00
Fluoride	0.4	0.05264	0.02
Bromide	41.0	0.01252	0.51
		SUM	458.51

ANION-CATION BALANCE **5** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	40900	
Cation Sum X 100	50884	124%
Anion Sum X 100	45851	112%

Note: In Natural Waters, Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	44.7
Ca+Mg+Na	502.16
HCO ₃ /Ca	0.07
dS/m	40.90
Value Table II	1.5
SAR adj	51.3

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Appendix G

A4B1780

3/03/2014

Invoice: A405121

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

RE: Report for A4B1780 Cal Am

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 2/25/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montieth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montieth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: Monterey Bay Analytical
Report To: David Holland
Project #: -
Received: 2/25/2014 - 09:20
Report Due: 3/04/2014

Invoice To: Monterey Bay Analytical
Invoice Attn: David Holland
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 3.2	COC/Labels Agree
	Preservation Confirmed
	Received On Wet Ice
	Received On Blue Ice
	Packing Material - Bubble Wrap
	Packing Material - Foam
	Packing Material - Other
	Sample(s) were received in temperature range.
	Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.

Report Distribution

Recipient(s)	Report Format
David Holland	Final.rpt

Certificate of Analysis

Sample ID: A4B1780-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #5 (84-94 ft bgs) // 12030

Sample Date - Time: 02/23/14 - 16:20
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A402381	02/25/14	02/26/14	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A402381	02/25/14	02/26/14	
Surrogate: 1-Br-2-Nitrobenzene	EPA 504.1	114 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A402552	02/28/14	03/02/14	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A402552	02/28/14	03/02/14	
2,4-D	EPA 515.3	ND	10	ug/L	1	A402552	02/28/14	03/02/14	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A402552	02/28/14	03/02/14	
Dalapon	EPA 515.3	ND	10	ug/L	1	A402552	02/28/14	03/02/14	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A402552	02/28/14	03/02/14	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A402552	02/28/14	03/02/14	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A402552	02/28/14	03/02/14	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A402552	02/28/14	03/02/14	
Surrogate: DCPAA	EPA 515.3	77 %	<i>Acceptable range: 70-130 %</i>						
<u>Volatile Organics by GC-MS</u>									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A402390	02/26/14	02/26/14	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A402390	02/26/14	02/26/14	BS1.0
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A402390	02/26/14	02/26/14	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A402390	02/26/14	02/26/14	
Acetone	EPA 524.2	ND	10	ug/L	1	A402390	02/26/14	02/26/14	BS1.0, CV0.0

Certificate of Analysis

Sample ID: A4B1780-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #5 (84-94 ft bgs) // 12030

Sample Date - Time: 02/23/14 - 16:20
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics by GC-MS									
Benzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A402390	02/26/14	02/26/14	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	BS1.0, CV0.0
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A402390	02/26/14	02/26/14	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A402390	02/26/14	02/26/14	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A402390	02/26/14	02/26/14	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A402390	02/26/14	02/26/14	

Certificate of Analysis

Sample ID: A4B1780-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #5 (84-94 ft bgs) // 12030

Sample Date - Time: 02/23/14 - 16:20
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	96 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	100 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A402368	02/25/14	02/26/14	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A402368	02/25/14	02/26/14	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Bromacil	EPA 525.2	ND	10	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A402368	02/25/14	02/26/14	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A402368	02/25/14	02/26/14	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A402368	02/25/14	02/26/14	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	BS1.0
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A402368	02/25/14	02/26/14	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A402368	02/25/14	02/26/14	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A402368	02/25/14	02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	115 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A402388	02/25/14	02/26/14	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A402388	02/25/14	02/26/14	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A402388	02/25/14	02/26/14	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A402388	02/25/14	02/26/14	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A402388	02/25/14	02/26/14	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A402388	02/25/14	02/26/14	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A402388	02/25/14	02/26/14	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A402388	02/25/14	02/26/14	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A402555	03/01/14	03/01/14	
Surrogate: AMPA	EPA 547	89 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A402387	02/25/14	02/26/14	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A402367	02/25/14	02/28/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A402381

Prepared: 02/25/2014

Prep Method: EPA 505

Analyst: GAK

Blank (A402381-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							02/26/14	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							02/26/14	
Surrogate: 1-Br-2-Nitrobenzene	3.8			3.4		110	70-130			02/26/14	

Blank Spike (A402381-BS1)

Dibromochloropropane (DBCP)	0.24	0.010	ug/L	0.20		118	70-130			02/26/14	
Ethylene Dibromide (EDB)	0.23	0.020	ug/L	0.20		113	70-130			02/26/14	
Surrogate: 1-Br-2-Nitrobenzene	3.6			3.4		104	70-130			02/26/14	

Blank Spike Dup (A402381-BSD1)

Dibromochloropropane (DBCP)	0.25	0.010	ug/L	0.20		125	70-130	5	20	02/26/14	
Ethylene Dibromide (EDB)	0.24	0.020	ug/L	0.20		122	70-130	7	20	02/26/14	
Surrogate: 1-Br-2-Nitrobenzene	3.7			3.4		109	70-130			02/26/14	

Matrix Spike (A402381-MS1), Source: A4B1641-01

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20	ND	111	65-135			02/26/14	
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.20	ND	109	65-135			02/26/14	
Surrogate: 1-Br-2-Nitrobenzene	3.3			3.4		99	70-130			02/26/14	

Matrix Spike Dup (A402381-MSD1), Source: A4B1641-01

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20	ND	114	65-135	3	20	02/26/14	
Ethylene Dibromide (EDB)	0.23	0.020	ug/L	0.20	ND	115	65-135	5	20	02/26/14	
Surrogate: 1-Br-2-Nitrobenzene	3.4			3.4		101	70-130			02/26/14	

EPA 515.3 - Quality Control

Batch: A402552

Prepared: 02/28/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank (A402552-BLK1)

2,4,5-T	ND	1.0	ug/L							03/02/14	
2,4,5-TP (Silvex)	ND	1.0	ug/L							03/02/14	
2,4-D	ND	10	ug/L							03/02/14	
Bentazon	ND	2.0	ug/L							03/02/14	
Dalapon	ND	10	ug/L							03/02/14	
Dicamba	ND	1.5	ug/L							03/02/14	
Dinoseb	ND	2.0	ug/L							03/02/14	
Pentachlorophenol	ND	0.20	ug/L							03/02/14	
Picloram	ND	1.0	ug/L							03/02/14	
Surrogate: DCPAA	46			58		80	70-130			03/02/14	

Blank Spike (A402552-BS1)

2,4,5-T	4.1	1.0	ug/L	4.0		103	70-130			03/02/14	
2,4,5-TP (Silvex)	0.84	1.0	ug/L	0.80		105	70-130			03/02/14	
2,4-D	0.46	10	ug/L	0.40		115	70-130			03/02/14	
Bentazon	8.9	2.0	ug/L	8.0		111	70-130			03/02/14	
Dalapon	4.1	10	ug/L	4.0		101	70-130			03/02/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A402552

Prepared: 02/28/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike (A402552-BS1)

Dicamba	6.2	1.5	ug/L	6.0		103	70-130			03/02/14	
Dinoseb	0.82	2.0	ug/L	0.80		102	70-130			03/02/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16		100	70-130			03/02/14	
Picloram	0.41	1.0	ug/L	0.40		104	70-130			03/02/14	
Surrogate: DCPAA	47			58		80	70-130			03/02/14	

Blank Spike Dup (A402552-BSD1)

2,4,5-T	4.2	1.0	ug/L	4.0		105	70-130	2	20	03/02/14	
2,4,5-TP (Silvex)	0.83	1.0	ug/L	0.80		103	70-130	2	20	03/02/14	
2,4-D	0.47	10	ug/L	0.40		118	70-130	2	20	03/02/14	
Bentazon	8.7	2.0	ug/L	8.0		109	70-130	2	20	03/02/14	
Dalapon	4.2	10	ug/L	4.0		106	70-130	4	20	03/02/14	
Dicamba	6.1	1.5	ug/L	6.0		101	70-130	2	20	03/02/14	
Dinoseb	0.81	2.0	ug/L	0.80		102	70-130	1	20	03/02/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16		98	70-130	2	20	03/02/14	
Picloram	0.43	1.0	ug/L	0.40		107	70-130	4	20	03/02/14	
Surrogate: DCPAA	45			58		78	70-130			03/02/14	

Matrix Spike (A402552-MS1), Source: A4B1782-01

2,4,5-T	4.2	1.0	ug/L	4.0	ND	104	70-130			03/02/14	
2,4,5-TP (Silvex)	0.85	1.0	ug/L	0.80	ND	106	70-130			03/02/14	
2,4-D	0.47	10	ug/L	0.40	ND	117	70-130			03/02/14	
Bentazon	8.8	2.0	ug/L	8.0	ND	110	70-130			03/02/14	
Dalapon	4.2	10	ug/L	4.0	ND	105	70-130			03/02/14	
Dicamba	6.0	1.5	ug/L	6.0	ND	101	70-130			03/02/14	
Dinoseb	0.82	2.0	ug/L	0.80	ND	102	70-130			03/02/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	97	70-130			03/02/14	
Picloram	0.41	1.0	ug/L	0.40	ND	103	70-130			03/02/14	
Surrogate: DCPAA	47			58		81	70-130			03/02/14	

Matrix Spike Dup (A402552-MSD1), Source: A4B1782-01

2,4,5-T	4.1	1.0	ug/L	4.0	ND	103	70-130	1	20	03/02/14	
2,4,5-TP (Silvex)	0.84	1.0	ug/L	0.80	ND	105	70-130	1	20	03/02/14	
2,4-D	0.51	10	ug/L	0.40	ND	127	70-130	9	20	03/02/14	
Bentazon	8.8	2.0	ug/L	8.0	ND	110	70-130	0	20	03/02/14	
Dalapon	4.1	10	ug/L	4.0	ND	102	70-130	3	20	03/02/14	
Dicamba	6.0	1.5	ug/L	6.0	ND	100	70-130	1	20	03/02/14	
Dinoseb	0.80	2.0	ug/L	0.80	ND	101	70-130	2	20	03/02/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	97	70-130	0	20	03/02/14	
Picloram	0.40	1.0	ug/L	0.40	ND	99	70-130	4	20	03/02/14	
Surrogate: DCPAA	46			58		80	70-130			03/02/14	

EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402390-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							02/26/14	
1,1,1-Trichloroethane	ND	0.50	ug/L							02/26/14	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							02/26/14	
1,1,2-Trichloroethane	ND	0.50	ug/L							02/26/14	
1,1-Dichloroethane	ND	0.50	ug/L							02/26/14	
1,1-Dichloroethene	ND	0.50	ug/L							02/26/14	
1,1-Dichloropropene	ND	0.50	ug/L							02/26/14	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							02/26/14	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							02/26/14	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							02/26/14	
1,2-Dichlorobenzene	ND	0.50	ug/L							02/26/14	
1,2-Dichloroethane	ND	0.50	ug/L							02/26/14	
1,2-Dichloropropane	ND	0.50	ug/L							02/26/14	
1,3,5-Trimethylbenzene	ND	0.50	ug/L							02/26/14	
1,3-Dichlorobenzene	ND	0.50	ug/L							02/26/14	
1,3-Dichloropropane	ND	0.50	ug/L							02/26/14	
1,4-Dichlorobenzene	ND	0.50	ug/L							02/26/14	
2,2-Dichloropropane	ND	0.50	ug/L							02/26/14	
2-Butanone	ND	5.0	ug/L							02/26/14	
2-Chlorotoluene	ND	0.50	ug/L							02/26/14	
2-Hexanone	ND	10	ug/L							02/26/14	
4-Chlorotoluene	ND	0.50	ug/L							02/26/14	
4-Methyl-2-pentanone	ND	5.0	ug/L							02/26/14	
Acetone	ND	10	ug/L							02/26/14	
Benzene	ND	0.50	ug/L							02/26/14	
Bromobenzene	ND	0.50	ug/L							02/26/14	
Bromochloromethane	ND	0.50	ug/L							02/26/14	
Bromodichloromethane	ND	0.50	ug/L							02/26/14	
Bromoform	ND	0.50	ug/L							02/26/14	
Bromomethane	ND	0.50	ug/L							02/26/14	
Carbon Tetrachloride	ND	0.50	ug/L							02/26/14	
Chlorobenzene	ND	0.50	ug/L							02/26/14	
Chloroethane	ND	0.50	ug/L							02/26/14	
Chloroform	ND	0.50	ug/L							02/26/14	
Chloromethane	ND	0.50	ug/L							02/26/14	
cis-1,2-Dichloroethene	ND	0.50	ug/L							02/26/14	
cis-1,3-Dichloropropene	ND	0.50	ug/L							02/26/14	
Dibromochloromethane	ND	0.50	ug/L							02/26/14	
Dibromomethane	ND	0.50	ug/L							02/26/14	
Dichlorodifluoromethane	ND	0.50	ug/L							02/26/14	
Dichloromethane	ND	0.50	ug/L							02/26/14	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							02/26/14	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							02/26/14	
Ethylbenzene	ND	0.50	ug/L							02/26/14	
Hexachlorobutadiene	ND	0.50	ug/L							02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402390-BLK1)

Isopropylbenzene	ND	0.50	ug/L							02/26/14	
m,p-Xylenes	ND	0.50	ug/L							02/26/14	
Methyl-t-butyl ether	ND	0.50	ug/L							02/26/14	
Naphthalene	ND	0.50	ug/L							02/26/14	
n-Butylbenzene	ND	0.50	ug/L							02/26/14	
n-Propylbenzene	ND	0.50	ug/L							02/26/14	
o-Xylene	ND	0.50	ug/L							02/26/14	
p-Isopropyltoluene	ND	0.50	ug/L							02/26/14	
sec-Butylbenzene	ND	0.50	ug/L							02/26/14	
Styrene	ND	0.50	ug/L							02/26/14	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							02/26/14	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							02/26/14	
tert-Butylbenzene	ND	0.50	ug/L							02/26/14	
Tetrachloroethene (PCE)	ND	0.50	ug/L							02/26/14	
Toluene	ND	0.50	ug/L							02/26/14	
trans-1,2-Dichloroethene	ND	0.50	ug/L							02/26/14	
trans-1,3-Dichloropropene	ND	0.50	ug/L							02/26/14	
Trichloroethene (TCE)	ND	0.50	ug/L							02/26/14	
Trichlorofluoromethane	ND	5.0	ug/L							02/26/14	
Vinyl Chloride	ND	0.50	ug/L							02/26/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		95	70-130			02/26/14	
Surrogate: Bromofluorobenzene	50			50		101	70-130			02/26/14	

Blank Spike (A402390-BS1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		108	70-130			02/26/14	
1,1,1-Trichloroethane	11	0.50	ug/L	10		106	70-130			02/26/14	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		107	70-130			02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	11	10	ug/L	10		106	70-130			02/26/14	
1,1,2-Trichloroethane	11	0.50	ug/L	10		107	70-130			02/26/14	
1,1-Dichloroethane	10	0.50	ug/L	10		105	70-130			02/26/14	
1,1-Dichloroethene	10	0.50	ug/L	10		103	70-130			02/26/14	
1,1-Dichloropropene	11	0.50	ug/L	10		108	70-130			02/26/14	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		103	70-130			02/26/14	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
1,2-Dichlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,2-Dichloroethane	10	0.50	ug/L	10		101	70-130			02/26/14	
1,2-Dichloropropane	10	0.50	ug/L	10		105	70-130			02/26/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,3-Dichlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
1,3-Dichloropropane	11	0.50	ug/L	10		108	70-130			02/26/14	
1,4-Dichlorobenzene	11	0.50	ug/L	10		105	70-130			02/26/14	
2,2-Dichloropropane	11	0.50	ug/L	10		108	70-130			02/26/14	
2-Butanone	14	5.0	ug/L	10		139	70-130			02/26/14	BS High
2-Chlorotoluene	10	0.50	ug/L	10		104	70-130			02/26/14	
2-Hexanone	12	10	ug/L	10		115	70-130			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A402390-BS1)

4-Chlorotoluene	11	0.50	ug/L	10		106	70-130			02/26/14	
4-Methyl-2-pentanone	12	5.0	ug/L	10		119	70-130			02/26/14	
Acetone	22	10	ug/L	10		221	70-130			02/26/14	BS High
Benzene	10	0.50	ug/L	10		101	70-130			02/26/14	
Bromobenzene	11	0.50	ug/L	10		107	70-130			02/26/14	
Bromochloromethane	10	0.50	ug/L	10		104	70-130			02/26/14	
Bromodichloromethane	8.5	0.50	ug/L	10		85	70-130			02/26/14	
Bromoform	11	0.50	ug/L	10		115	70-130			02/26/14	
Bromomethane	9.5	0.50	ug/L	10		95	70-130			02/26/14	
Carbon Tetrachloride	11	0.50	ug/L	10		110	70-130			02/26/14	
Chlorobenzene	11	0.50	ug/L	10		106	70-130			02/26/14	
Chloroethane	10	0.50	ug/L	10		100	70-130			02/26/14	
Chloroform	10	0.50	ug/L	10		102	70-130			02/26/14	
Chloromethane	9.6	0.50	ug/L	10		96	70-130			02/26/14	
cis-1,2-Dichloroethene	10	0.50	ug/L	10		104	70-130			02/26/14	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		109	70-130			02/26/14	
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130			02/26/14	
Dibromomethane	11	0.50	ug/L	10		114	70-130			02/26/14	
Dichlorodifluoromethane	9.9	0.50	ug/L	10		99	70-130			02/26/14	
Dichloromethane	11	0.50	ug/L	10		106	70-130			02/26/14	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		107	70-130			02/26/14	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		111	70-130			02/26/14	
Ethylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
Hexachlorobutadiene	10	0.50	ug/L	10		104	70-130			02/26/14	
Isopropylbenzene	10	0.50	ug/L	10		103	70-130			02/26/14	
m,p-Xylenes	19	0.50	ug/L	20		96	70-130			02/26/14	
Methyl-t-butyl ether	22	0.50	ug/L	20		108	70-130			02/26/14	
Naphthalene	11	0.50	ug/L	10		109	70-130			02/26/14	
n-Butylbenzene	10	0.50	ug/L	10		103	70-130			02/26/14	
n-Propylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
o-Xylene	10	0.50	ug/L	10		104	70-130			02/26/14	
p-Isopropyltoluene	11	0.50	ug/L	10		106	70-130			02/26/14	
sec-Butylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
Styrene	13	0.50	ug/L	10		129	70-130			02/26/14	
tert-Amyl Methyl Ether (TAME)	11	3.0	ug/L	10		111	70-130			02/26/14	
tert-Butyl alcohol (TBA)	11	2.0	ug/L	10		107	70-130			02/26/14	
tert-Butylbenzene	10	0.50	ug/L	10		104	70-130			02/26/14	
Tetrachloroethene (PCE)	10	0.50	ug/L	10		104	70-130			02/26/14	
Toluene	11	0.50	ug/L	10		106	70-130			02/26/14	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		105	70-130			02/26/14	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		109	70-130			02/26/14	
Trichloroethene (TCE)	9.4	0.50	ug/L	10		94	70-130			02/26/14	
Trichlorofluoromethane	11	5.0	ug/L	10		107	70-130			02/26/14	
Vinyl Chloride	9.9	0.50	ug/L	10		99	70-130			02/26/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		100	70-130			02/26/14	
Surrogate: Bromofluorobenzene	5.0			5.0		100	70-130			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402390-BSD1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		109	70-130	1	30	02/26/14	
1,1,1-Trichloroethane	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		109	70-130	2	30	02/26/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	11	10	ug/L	10		110	70-130	3	30	02/26/14	
1,1,2-Trichloroethane	11	0.50	ug/L	10		108	70-130	2	30	02/26/14	
1,1-Dichloroethane	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
1,1-Dichloroethene	11	0.50	ug/L	10		108	70-130	5	30	02/26/14	
1,1-Dichloropropene	11	0.50	ug/L	10		110	70-130	1	30	02/26/14	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		105	70-130	2	30	02/26/14	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		108	70-130	2	30	02/26/14	
1,2,4-Trimethylbenzene	11	0.50	ug/L	10		110	70-130	6	30	02/26/14	
1,2-Dichlorobenzene	11	0.50	ug/L	10		106	70-130	0	30	02/26/14	
1,2-Dichloroethane	11	0.50	ug/L	10		107	70-130	6	30	02/26/14	
1,2-Dichloropropane	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		111	70-130	5	30	02/26/14	
1,3-Dichlorobenzene	11	0.50	ug/L	10		107	70-130	1	30	02/26/14	
1,3-Dichloropropane	11	0.50	ug/L	10		109	70-130	1	30	02/26/14	
1,4-Dichlorobenzene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
2,2-Dichloropropane	11	0.50	ug/L	10		112	70-130	4	30	02/26/14	
2-Butanone	14	5.0	ug/L	10		139	70-130	0	30	02/26/14	BS High
2-Chlorotoluene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
2-Hexanone	12	10	ug/L	10		115	70-130	0	30	02/26/14	
4-Chlorotoluene	11	0.50	ug/L	10		110	70-130	4	30	02/26/14	
4-Methyl-2-pentanone	11	5.0	ug/L	10		114	70-130	4	30	02/26/14	
Acetone	22	10	ug/L	10		221	70-130	0	30	02/26/14	BS High
Benzene	10	0.50	ug/L	10		104	70-130	3	30	02/26/14	
Bromobenzene	11	0.50	ug/L	10		109	70-130	2	30	02/26/14	
Bromochloromethane	10	0.50	ug/L	10		104	70-130	0	30	02/26/14	
Bromodichloromethane	9.8	0.50	ug/L	10		98	70-130	14	30	02/26/14	
Bromoform	11	0.50	ug/L	10		115	70-130	0	30	02/26/14	
Bromomethane	9.4	0.50	ug/L	10		94	70-130	1	30	02/26/14	
Carbon Tetrachloride	11	0.50	ug/L	10		108	70-130	2	30	02/26/14	
Chlorobenzene	11	0.50	ug/L	10		110	70-130	3	30	02/26/14	
Chloroethane	10	0.50	ug/L	10		100	70-130	0	30	02/26/14	
Chloroform	11	0.50	ug/L	10		105	70-130	3	30	02/26/14	
Chloromethane	9.1	0.50	ug/L	10		91	70-130	6	30	02/26/14	
cis-1,2-Dichloroethene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		112	70-130	2	30	02/26/14	
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130	0	30	02/26/14	
Dibromomethane	10	0.50	ug/L	10		101	70-130	12	30	02/26/14	
Dichlorodifluoromethane	10	0.50	ug/L	10		104	70-130	5	30	02/26/14	
Dichloromethane	11	0.50	ug/L	10		108	70-130	1	30	02/26/14	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		110	70-130	2	30	02/26/14	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		112	70-130	1	30	02/26/14	
Ethylbenzene	11	0.50	ug/L	10		108	70-130	4	30	02/26/14	
Hexachlorobutadiene	11	0.50	ug/L	10		108	70-130	4	30	02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402390

Prepared: 02/26/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402390-BSD1)

Isopropylbenzene	11	0.50	ug/L	10		107	70-130	4	30	02/26/14	
m,p-Xylenes	20	0.50	ug/L	20		99	70-130	4	30	02/26/14	
Methyl-t-butyl ether	22	0.50	ug/L	20		109	70-130	1	30	02/26/14	
Naphthalene	11	0.50	ug/L	10		111	70-130	2	30	02/26/14	
n-Butylbenzene	11	0.50	ug/L	10		107	70-130	4	30	02/26/14	
n-Propylbenzene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
o-Xylene	11	0.50	ug/L	10		106	70-130	2	30	02/26/14	
p-Isopropyltoluene	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
sec-Butylbenzene	11	0.50	ug/L	10		107	70-130	3	30	02/26/14	
Styrene	14	0.50	ug/L	10		140	70-130	9	30	02/26/14	BS High
tert-Amyl Methyl Ether (TAME)	11	3.0	ug/L	10		115	70-130	4	30	02/26/14	
tert-Butyl alcohol (TBA)	10	2.0	ug/L	10		105	70-130	2	30	02/26/14	
tert-Butylbenzene	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
Tetrachloroethene (PCE)	11	0.50	ug/L	10		109	70-130	4	30	02/26/14	
Toluene	11	0.50	ug/L	10		110	70-130	4	30	02/26/14	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		108	70-130	3	30	02/26/14	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		112	70-130	2	30	02/26/14	
Trichloroethene (TCE)	11	0.50	ug/L	10		108	70-130	14	30	02/26/14	
Trichlorofluoromethane	11	5.0	ug/L	10		109	70-130	2	30	02/26/14	
Vinyl Chloride	10	0.50	ug/L	10		104	70-130	4	30	02/26/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		100	70-130			02/26/14	
Surrogate: Bromofluorobenzene	50			50		101	70-130			02/26/14	

EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank (A402368-BLK1)

Alachlor	ND	1.0	ug/L							02/26/14	
Atrazine	ND	0.50	ug/L							02/26/14	
Benzo(a)pyrene	ND	0.10	ug/L							02/26/14	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							02/26/14	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							02/26/14	
Bromacil	ND	10	ug/L							02/26/14	
Butachlor	ND	0.38	ug/L							02/26/14	
Diazinon	ND	0.25	ug/L							02/26/14	
Dimethoate	ND	10	ug/L							02/26/14	
Metolachlor	ND	0.50	ug/L							02/26/14	
Metribuzin	ND	0.50	ug/L							02/26/14	
Molinate	ND	2.0	ug/L							02/26/14	
Propachlor	ND	0.50	ug/L							02/26/14	
Simazine	ND	1.0	ug/L							02/26/14	
Thiobencarb	ND	1.0	ug/L							02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	6.0			5.0		119	70-130			02/26/14	

Blank Spike (A402368-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A402368-BS1)

Alachlor	0.60	1.0	ug/L	0.50		119	70-130			02/26/14	
Atrazine	0.55	0.50	ug/L	0.50		111	70-130			02/26/14	
Benzo(a)pyrene	0.12	0.10	ug/L	0.10		119	70-130			02/26/14	
Bis(2-ethylhexyl) adipate	3.6	3.0	ug/L	3.0		120	70-130			02/26/14	
Bis(2-ethylhexyl) phthalate	4.3	3.0	ug/L	3.0		142	70-130			02/26/14	BS High
Bromacil	2.6	10	ug/L	2.0		132	70-130			02/26/14	BS High
Butachlor	1.4	0.38	ug/L	1.2		110	70-130			02/26/14	
Diazinon	0.038	0.25	ug/L	0.050		76	70-130			02/26/14	
Dimethoate	0.35	10	ug/L	0.50		71	70-130			02/26/14	
Metolachlor	3.3	0.50	ug/L	2.5		131	70-130			02/26/14	BS High
Metribuzin	3.0	0.50	ug/L	2.5		120	70-130			02/26/14	
Molinate	2.9	2.0	ug/L	2.5		117	70-130			02/26/14	
Propachlor	2.9	0.50	ug/L	2.5		117	70-130			02/26/14	
Simazine	0.40	1.0	ug/L	0.35		116	70-130			02/26/14	
Thiobencarb	0.59	1.0	ug/L	0.50		119	70-130			02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.5			5.0		109	70-130			02/26/14	

Blank Spike Dup (A402368-BSD1)

Alachlor	0.58	1.0	ug/L	0.49		118	70-130	3	30	02/26/14	
Atrazine	0.53	0.50	ug/L	0.49		107	70-130	5	30	02/26/14	
Benzo(a)pyrene	0.11	0.10	ug/L	0.098		116	70-130	4	30	02/26/14	
Bis(2-ethylhexyl) adipate	3.6	3.0	ug/L	2.9		122	70-130	0	30	02/26/14	
Bis(2-ethylhexyl) phthalate	4.1	3.0	ug/L	2.9		140	70-130	3	30	02/26/14	BS High
Bromacil	2.6	10	ug/L	2.0		132	70-130	2	30	02/26/14	BS High
Butachlor	1.4	0.38	ug/L	1.2		111	70-130	1	30	02/26/14	
Diazinon	0.040	0.25	ug/L	0.049		82	70-130	6	30	02/26/14	
Dimethoate	0.34	10	ug/L	0.49		70	70-130	3	30	02/26/14	
Metolachlor	3.2	0.50	ug/L	2.5		132	70-130	1	30	02/26/14	BS High
Metribuzin	3.0	0.50	ug/L	2.5		121	70-130	1	30	02/26/14	
Molinate	2.7	2.0	ug/L	2.5		109	70-130	9	30	02/26/14	
Propachlor	2.7	0.50	ug/L	2.5		109	70-130	8	30	02/26/14	
Simazine	0.37	1.0	ug/L	0.34		108	70-130	9	30	02/26/14	
Thiobencarb	0.57	1.0	ug/L	0.49		116	70-130	3	30	02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			4.9		101	70-130			02/26/14	

Matrix Spike (A402368-MS1), Source: A4B1490-02

Alachlor	0.54	1.0	ug/L	0.49	ND	110	70-130			02/26/14	
Atrazine	0.52	0.50	ug/L	0.49	ND	105	70-130			02/26/14	
Benzo(a)pyrene	0.13	0.10	ug/L	0.099	ND	134	70-130			02/26/14	MS1.0 High
Bis(2-ethylhexyl) adipate	3.7	3.0	ug/L	3.0	ND	124	70-130			02/26/14	
Bis(2-ethylhexyl) phthalate	4.4	3.0	ug/L	3.0	ND	129	70-130			02/26/14	
Bromacil	2.5	10	ug/L	2.0	ND	126	70-130			02/26/14	
Butachlor	1.3	0.38	ug/L	1.2	ND	106	70-130			02/26/14	
Diazinon	0.056	0.25	ug/L	0.049	ND	114	70-130			02/26/14	
Dimethoate	0.32	10	ug/L	0.49	ND	64	70-130			02/26/14	MS1.0 Low
Metolachlor	2.9	0.50	ug/L	2.5	ND	119	70-130			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402368

Prepared: 02/25/2014

Prep Method: EPA 525.2

Analyst: KHH

Matrix Spike (A402368-MS1), Source: A4B1490-02

Metribuzin	2.6	0.50	ug/L	2.5	ND	104	70-130			02/26/14	
Molinate	2.7	2.0	ug/L	2.5	ND	110	70-130			02/26/14	
Propachlor	2.6	0.50	ug/L	2.5	ND	107	70-130			02/26/14	
Simazine	0.38	1.0	ug/L	0.35	ND	109	70-130			02/26/14	
Thiobencarb	0.57	1.0	ug/L	0.49	ND	116	70-130			02/26/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.2			4.9		106	70-130			02/26/14	

EPA 531.1 - Quality Control

Batch: A402388

Prepared: 02/25/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank (A402388-BLK1)

3-Hydroxycarbofuran	ND	2.0	ug/L							02/25/14	
Aldicarb	ND	2.0	ug/L							02/25/14	
Aldicarb Sulfone	ND	2.0	ug/L							02/25/14	
Aldicarb Sulfoxide	ND	2.0	ug/L							02/25/14	
Carbaryl	ND	2.0	ug/L							02/25/14	
Carbofuran	ND	2.0	ug/L							02/25/14	
Methomyl	ND	2.0	ug/L							02/25/14	
Oxamyl	ND	2.0	ug/L							02/25/14	

Blank Spike (A402388-BS1)

3-Hydroxycarbofuran	4.2	2.0	ug/L	4.0		105	80-120			02/25/14	
Aldicarb	4.1	2.0	ug/L	4.0		103	80-120			02/25/14	
Aldicarb Sulfone	4.1	2.0	ug/L	4.0		103	80-120			02/25/14	
Aldicarb Sulfoxide	4.1	2.0	ug/L	4.0		104	80-120			02/25/14	
Carbaryl	4.2	2.0	ug/L	4.0		104	80-120			02/25/14	
Carbofuran	4.1	2.0	ug/L	4.0		102	80-120			02/25/14	
Methomyl	4.1	2.0	ug/L	4.0		103	80-120			02/25/14	
Oxamyl	4.1	2.0	ug/L	4.0		102	80-120			02/25/14	

Blank Spike Dup (A402388-BSD1)

3-Hydroxycarbofuran	4.1	2.0	ug/L	4.0		103	80-120	1	20	02/26/14	
Aldicarb	4.1	2.0	ug/L	4.0		102	80-120	1	20	02/26/14	
Aldicarb Sulfone	4.2	2.0	ug/L	4.0		106	80-120	3	20	02/26/14	
Aldicarb Sulfoxide	4.2	2.0	ug/L	4.0		105	80-120	1	20	02/26/14	
Carbaryl	4.1	2.0	ug/L	4.0		101	80-120	3	20	02/26/14	
Carbofuran	4.1	2.0	ug/L	4.0		103	80-120	2	20	02/26/14	
Methomyl	4.3	2.0	ug/L	4.0		109	80-120	5	20	02/26/14	
Oxamyl	4.2	2.0	ug/L	4.0		104	80-120	2	20	02/26/14	

Matrix Spike (A402388-MS1), Source: A4B1177-01

3-Hydroxycarbofuran	3.3	2.0	ug/L	4.0	ND	82	65-135			02/26/14	
Aldicarb	3.1	2.0	ug/L	4.0	ND	72	65-135			02/26/14	
Aldicarb Sulfone	3.5	2.0	ug/L	4.0	ND	79	65-135			02/26/14	
Aldicarb Sulfoxide	3.5	2.0	ug/L	4.0	ND	87	65-135			02/26/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A402388

Prepared: 02/25/2014

Prep Method: EPA 531.1

Analyst: AAR

Matrix Spike (A402388-MS1), Source: A4B1177-01

Carbaryl	10	2.0	ug/L	4.0	8.8	31	65-135			02/26/14	MS1.0 Low
Carbofuran	3.3	2.0	ug/L	4.0	ND	83	65-135			02/26/14	
Methomyl	3.5	2.0	ug/L	4.0	ND	87	65-135			02/26/14	
Oxamyl	3.3	2.0	ug/L	4.0	ND	84	65-135			02/26/14	

EPA 547 - Quality Control

Batch: A402555

Prepared: 03/01/2014

Prep Method: EPA 547

Analyst: RJB

Blank (A402555-BLK1)

Glyphosate	ND	25	ug/L							03/01/14	
Surrogate: AMPA	95			100		95	70-130			03/01/14	

Blank Spike (A402555-BS1)

Glyphosate	100	25	ug/L	100		103	70-130			03/01/14	
Surrogate: AMPA	100			100		102	70-130			03/01/14	

Blank Spike Dup (A402555-BSD1)

Glyphosate	120	25	ug/L	100		116	70-130	12	30	03/01/14	
Surrogate: AMPA	97			100		97	70-130			03/01/14	

Matrix Spike (A402555-MS1), Source: A4B1780-01

Glyphosate	97	25	ug/L	100	ND	95	70-130			03/01/14	
Surrogate: AMPA	89			100		87	70-130			03/01/14	

Matrix Spike Dup (A402555-MSD1), Source: A4B1780-01

Glyphosate	93	25	ug/L	100	ND	91	70-130	4	30	03/01/14	
Surrogate: AMPA	86			100		84	70-130			03/01/14	

EPA 548.1 - Quality Control

Batch: A402387

Prepared: 02/25/2014

Prep Method: EPA 548.1

Analyst: KHH

Blank (A402387-BLK1)

Endothall	ND	45	ug/L							02/26/14	
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Blank Spike (A402387-BS1)

Endothall	17	45	ug/L	20		83	60-111			02/26/14	
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Blank Spike Dup (A402387-BSD1)

Endothall	15	45	ug/L	20		73	60-111	13	46	02/26/14	
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Matrix Spike (A402387-MS1), Source: A4B1489-04

Endothall	4.3	45	ug/L	20	ND	22	10-122			02/26/14	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 549.2 - Quality Control

Batch: A402367

Prepared: 02/25/2014

Prep Method: EPA 549.2

Analyst: PYA

Blank (A402367-BLK1)

Diquat ND 4.0 ug/L 02/28/14

Blank Spike (A402367-BS1)

Diquat 3.0 4.0 ug/L 4.0 76 70-130 02/28/14

Blank Spike Dup (A402367-BSD1)

Diquat 2.9 4.0 ug/L 4.0 72 70-130 6 30 02/28/14

Matrix Spike (A402367-MS1), Source: A4B1780-01

Diquat 2.2 4.0 ug/L 4.0 ND 54 70-130 02/28/14 MS1.0 **Low**

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of Oregon - NELAP	4021	State of Washington	C997
State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA

BSK is not accredited under the NELAC program for the following parameters:

A4B1780



Monterey Bay Analytical

Monte6227



02252014

Turnaround: Standard
Due Date: 03/04/2014

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

A4B1780
 Montec227
 02/25/2014
 5

* Required Fields

TEMP: 82



ANALYSIS REQUESTED

Client/Company Name: **Monterey Bay Analytical** Report Attention: **David Holland** Phone #: (831)-357-6227 FAX #: (831)-641-0734
 E-mail: **4MBAS@Sbcglobal.net**

Address: **4 Justin Ct.** City: **Monterey** State: **CA** Zip: **93940**

Project Information: **Cal Am** PO #: **Quote # 464**

How would you like your completed results sent? E-Mail Fax EDD Mail Only

QC Request: STD Level II STD 5 Day** 2 Day** 1 Day**

QC Request: Result Request ** Surcharge Y N Regulatory Compliance Electronic Data Transfer: System No. *

Matrix Types: **RSW - Raw Surface Water** **CFW - Chlorinated Finished Water** **CVW - Chlorinated Waste Water** **BW - Bottled Water** **RGW - Raw Ground Water** **FW - Finished Water** **WV - Waste Water** **SW - Storm Water** **DW - Drinking Water** **SO - Solid**

- EPA 504
- EPA 515
- EPA 524 inc MTBE
- EPA 525
- EPA 531
- EPA 547
- EPA 548
- EPA 549

Sample #	Bottles	Sampled		Sample Description / Location *	Matrix *	Comments / Station Code														
		Date	Time																	
1	2/23	16:20	CX-BIWO Zone #5 (84-94 ft bgs)	RGW	12030															
			5 day TAT please																	
			Conductivity 41,000 uS/cm																	

Relinquished by: (Signature and Printed Name) **David Holland** Company: **MBAS** Date: **2/24** Time: **1600**
 Received by: (Signature and Print Name) _____ Date: _____ Time: _____
 Relinquished by: (Signature and Printed Name) _____ Company: _____ Date: _____ Time: _____

Received at Lab by: (Signature and Printed Name) _____ Date: _____ Time: _____
 Shipping Method: **EXO BPS GSO WALK-IN SIVR FEDEX OTHER** Cooling Method: **WET BLUE NONE**
 Packing Material: **AW bags** **BAUTISM**

Notice: Payment for services rendered as noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service/holding charges and interest calculated at 1 1/2 % per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collection, including attorney's fees incurred prior to or in litigation, whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company, respectively, acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for any local services on this Chain of Custody. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 3:00 pm will begin the next business day. 5/14/2013 2:46:56pm



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$		Yes	No	NA	Were correct containers and preservatives received for the tests requested?		Yes	No	NA
	If samples were taken today, is there evidence that chilling has begun?		Yes	No	NA	Were there bubbles in the VOA vials? (Volatiles Only)		Yes	No	NA
	Did all bottles arrive unbroken and intact?		Yes	No		Was a sufficient amount of sample received?		Yes	No	
	Did all bottle labels agree with COC?		Yes	No		Do samples have a hold time <72 hours?		Yes	No	
	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?		Yes	No	NA	Was PM notified of discrepancies? PM: _____ By/Time: _____		Yes	No	NA
Bottles Received <small>means preservation/chlorine checks are either N/A or are performed in the lab</small>	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?							
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—							
	None (P) ^{White Cap}	—	—							
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y	N						
	HNO_3 (P) ^{Red Cap}	—	—							
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y	N						
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y	N						
	NaOH + ZnAc (P)	pH ≥ 9	Y	N						
	Dissolved Oxygen 300ml (g)	—	—							
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—							
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—			IC				
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—			BA, 2C				
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—							OKC
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—			7V				
	$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) ^{Orange Label} 531	pH = 3	Y	N		N				2/25/14
	NH_4Cl (AG) ^{Purple Label} 552	—	—							
	EDA (AG) ^{Brown Label} DBPs	—	—							
	Ascorbic + Maleic (AG) ^{Light Green Label} 524.3	—	—							
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—			3V				
Buffer pH 4 (CG)	—	—								
None (CG)	—	—								
H_3PO_4 (CG) ^{Salmon Label}	—	—								
Other:										
Asbestos 1Liter Plastic w/ Foil	—	—								
Low Level Hg / Metals Double Baggie	—	—								
Bottled Water	—	—								
Clear Glass Jar: 250 / 500 / 1 Liter	—	—								
Soil Tube Brass / Steel / Plastic	—	—								
Tedlar Bag / Plastic Bag	—	—								
Split	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials			
	S P				S P					
	S P				S P					
Comments										

*Ceres Analytical Laboratory, Inc.
4919 Windplay Dr., Suite 1
El Dorado Hills, CA 95762*

March 3, 2014

Ceres ID: 10267

Monterey Bay Analytical
Mr. David Holland
4 Justin Court, Ste. D
Monterey, CA 93940

Mr. Holland,

Enclosed please find the results for one aqueous sample received on February 25, 2014. This sample was analyzed for 2,3,7,8-TCDD by EPA 1613. Rush 5 day turn-around time was provided for this work.

This work was authorized under M.B.A.'s Project # 12030.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

The Sample Tracking Section includes all external and internal chain of custodies, laboratory bench sheets, and any special instructions received.

If you have any questions regarding this report, please feel free to contact me at (888)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

<u>Ceres Sample ID:</u>	<u>Sample ID</u>	<u>Date Received</u>	<u>Collection Date & Time</u>
10267-001	CX-B1WQ #5 (84-94ft bags)	2/25/2014	2/23/2014 16:20

Section II: Data Summary

Sample ID: Method Blank								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-MB001	Date Received:	NA
Project:	12030		Sample Size:	1.000 L	QC Batch #:	1158	Date Extracted:	28-Feb-14
Date Collected:	NA				ZB-5 MS Analysis Date:	1-Mar-14		
Time Collected:	NA							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	2.15			<u>IS</u> ¹³ C-2,3,7,8-TCDD	103	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	109	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JMH			Reviewed by:	BS			

Sample ID: Ongoing Precision and Recovery								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-OPR001	Date Received:	NA
Project:	12030		Sample Size:	1.000 L	QC Batch #:	1158	Date Extracted:	28-Feb-14
Date Collected:	NA				ZB-5 MS Analysis Date:	1-Mar-14		
Time Collected:	NA							
Analyte	Conc. (ng/ml)	Limits^a	Qualifiers		Labeled Standards	Conc.	Limits^a	Qualifiers
2,3,7,8-TCDD	9.90	7.3-14.6			IS ¹³ C-2,3,7,8-TCDD	98.3	25-141	
					CRS ³⁷ Cl ₄ -2,3,7,8-TCDD	10.1	3.7-15.8	
					<i>a. Method acceptance criteria .</i>			
Analyst: JMH				Reviewed by: BS				

Sample ID: CX-B1WQ Zone #5 (84-94ft bags)							
Client Data			Sample Data		Laboratory Data		
Name: Monterey Bay Analytical			Matrix: Aqueous		Lab Sample ID: 10267-001		Date Received: 25-Feb-14
Project: 12030			Sample Size: 1.061 L		QC Batch #: 1158		Date Extracted: 28-Feb-14
Date Collected: 23-Feb-14					ZB-5 MS Analysis Date: 1-Mar-14		
Time Collected: 16:20							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c Qualifiers
2,3,7,8-TCDD	ND	1.96			IS ¹³ C-2,3,7,8-TCDD	95.2	31 - 137
					CRS ³⁷ Cl ₄ -2,3,7,8-TCDD	91.2	42 - 164
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.		
Analyst: JMH				Reviewed by: BS			

Section VI: Sample Tracking

Ceres Analytical Laboratory, Inc.

Chain of Custody

Ceres Use Only

Pg. **Appendix G**

4919 Windplay Dr. Suite 1
 El Dorado Hills, CA 95762
 Tel: (916)932-5011

Please Print in Pen

Ceres Project ID: 10267
 Temperature: 1.4 °C

Reports and invoices will be delivered by email in .pdf format

Client Information	Invoice Information (if different from Client Info)	Project Information
Company Name: <u>Monterey Bay Analytical</u> Contact Name: <u>David Holland</u> Address: <u>4 Justin Court Ste D Monterey CA 93940</u> Ph: <u>831-375-6227</u> Email: <u>montereybayanalytical@usa.net</u>	Company Name: <u>Same</u> Contact Name: _____ Address: _____ Ph: _____ Fx: _____ Email: _____	Ceres Quote #: _____ P.O. # _____ Project ID: _____ TAT (business days) _____ Std 15 days; Rush TAT available please call

Matrix abbreviations:

A: Aqueous S: Soil AS: Ash DW: Drinking Water
 E: Effluent SD: Sediment C: Clay SO: Solid
 I: Influent SL: Sludge CS: Clay Slurry O: Other (please comment)

Sample ID	Sample Collection			Matrix	# of containers	EPA 1613	EPA 8290	NCASI 551	EPA 8280	EPA 613	Other	TEF
	Date	Time	Matrix									<input type="checkbox"/> 1998 WHO <input type="checkbox"/> 2005 WHO <input type="checkbox"/> Other
1	CX-B1WQ Zone #5 (84-94ft bags)	2/23/2014	16:20	Aq	2	X						12029 12030 (2,3,7,8 TCDD only) 5 day Rush Please
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

Samples will be disposed of 45 days after submission of report, unless other provisions have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (signature and Printed Name)	Date	Time
David Holland	2/24/2014	16:00	<i>Jim Medin</i> Jim Medin	2/25/14	10:55

Client understands that all terms described in the proposals, quotations, and/or the general terms and conditions of Ceres Analytical Laboratory will be followed.
 Ceres Analytical Laboratory reserves the right to terminate its service or withhold delivery of reports, if in Ceres' discretion the terms of the project have been broken.

Sample Receipt Check List

Ceres ID: 10267	Date/Time: 2/25/14 10:55
Client Project ID: 12030	Received Temperature: 1.4°C Acceptable: <input checked="" type="radio"/> Y / <input type="radio"/> N
Chain of Custody Relinquished by signed? <i>Printed, NOT signed.</i>	Y / <input checked="" type="radio"/> N
Custody Seals? Present?	Y / N
Intact?	Y / N
NA:	<input checked="" type="radio"/> NA
Unlabeled / Illegible Samples	Y / <input checked="" type="radio"/> N
Proper Containers:	<input checked="" type="radio"/> Y / <input type="radio"/> N
Preservation Acceptable (Chemical or <u>Temperature</u>)?	<input checked="" type="radio"/> Y / <input type="radio"/> N
Drinking Water, Sodium Thiosulfate present? <i>no residual Cl</i>	Y / <input checked="" type="radio"/> N / NA
List COC discrepancies:	<i>2/25/14</i>
List Damaged Samples:	<i>2/25/14</i>

Ceres Analytical Laboratory

Process Request

Ceres ID: 10267 PB: 1158 Sample #s: 1 Due Date: 3/3/14

Matrix (circle one): Drinking Water Aqueous Effluent Influent Ash

 Solid Soil Sediment Sludge Clay/Clay Slurry Other: _____

Method (check one): 1613 2,3,7,8-TCDD 8290 2,3,7,8-TCDD

1613 2,3,7,8-TCDD/F 8290 2,3,7,8-TCDD/F

1613 Cl₄-Cl₈ 8290 Cl₄-Cl₈

8280 2,3,7,8-TCDD NCASI 551

8280 2,3,7,8-TCDD/F

8280 Appendix IX

8280 Cl₄-Cl₈

Instructions:

Method: 1613
 SOP #: 301-1

Ceres Analytical Laboratory
 Sample Prep Bench Sheet

Ceres ID	Client ID	Ver.	wt/vol	ISS/PAR	CSS	AP	AB/AC	FC	RSS
				chem/date/witness	chem/date/witness		chem/date/witness		
0-1158-MB001	Method Blank		1.000L	J 2/28/14 MC	J 3/1/14 MC	NA	J 3/1/14	NA	J 3/1/14 MC
0-1158-OPR001	OPR		1.000L	↓	↓	↓	↓	↓	↓
10267-1158-001	CX-B1WQ #5	✓	1.061L	↓	↓	↓	↓	↓	↓

Comments: ⓐ spiked w/NSS

Soxhlet Start: 14:30 2/28/14
 Soxhlet Stop: 08:33 3/1/14

Samples Logged out by: J 2/28/14 11:00
 Samples Returned by: NA
 Note samples Depleted: 1A

Sample Extracts Storage Location: Box 8
 Extracts to Instrument: 11:00 3/1/14 J
 Extracts returned to Storage Location: 08:00 3/3/14 J

Method: 1613
SOP #: 201.1

Ceres Analytical Laboratory
Sample Prep Bench Sheet

Standard	Standard ID	Vol.	Expiration Date
ISS	5021212A	10ul	3/12/14
NSS	5031212B	10ul	3/12/14
CSS	5031212C	10ul	3/12/14
RSS	5031212D	20ul	3/12/14

Solvents/Solutions/Packing Materials

Name	Amount	Lot #	Exp. Date
Toluene	450ml	P80057A0202	8/17/14
Hexane	30,30,100,200	176735	8/10/14
Sigel	4g	P024514A	8/5/14
Basic Gel	4g	P012014A	7/20/14
Acid Gel	8g	P012014B	7/20/14
Acid Al	6g	P020414A	8/4/14
Na2SO4	1.5g	P120413A	8/4/14
20% Dcm/Hex	30ml	L021914A	8/19/14

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*	Results taken from dilution.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery

CERTIFICATE OF ANALYSIS

<p>Client: Monterey Bay Analytical Services 4 Justin Court, Suite D Monterey CA, 93940</p> <p>Attention: David Holland</p> <p>Phone: (831) 375-6227</p> <p>Fax: (831) 641-0734</p> <p>Work Order(s): 4B25020</p>	<p>Report Date: 03/04/14 21:17</p> <p>Received Date: 02/25/14 09:40</p> <p>Turn Around: 5 workdays</p> <p>Client Project: Cal Am</p>
---	--

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear David Holland :

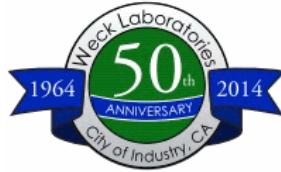
Enclosed are the results of analyses for samples received 02/25/14 09:40 with the Chain of Custody document. The samples were received in good condition, at 4.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

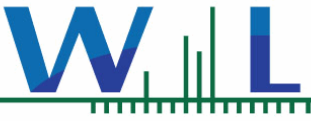
Case Narrative:

Reviewed by:



 Brandon Gee
 Project Manager





Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:17

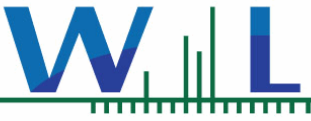
ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
CX-B1WQ Zone #5 (84-94 ft bgs)	Nathan Reynolds	12030	4B25020-01	Water	02/23/14 16:20

ANALYSES

Anions by IC, EPA Method 300.0/300.1/326

Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:17

4B25020-01 CX-B1WQ Zone #5 (84-94 ft bgs)

Sampled: 02/23/14 16:20

Sampled By: Nathan Reynolds

Matrix: Water

Sample Note: 12030

Anions by IC, EPA Method 300.0/300.1/326

Method: EPA 9056A

Batch: W4C0014

Prepared: 03/01/14 11:00

Analyst: atl

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Iodide	160	10	250	ug/l	25	03/01/14 18:00	M-05, J

Chlorinated Pesticides and/or PCBs

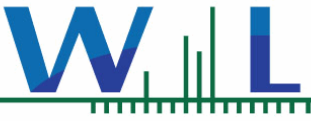
Method: EPA 508

Batch: W4B1139

Prepared: 02/26/14 08:25

Analyst: mxw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
4,4'-DDD	ND	0.010	ug/l	1	02/28/14 22:48	
4,4'-DDE	ND	0.010	ug/l	1	02/28/14 22:48	
4,4'-DDT	ND	0.010	ug/l	1	02/28/14 22:48	
Aldrin	ND	0.010	ug/l	1	02/28/14 22:48	
alpha-BHC	ND	0.010	ug/l	1	02/28/14 22:48	
Aroclor 1016	ND	0.10	ug/l	1	02/28/14 22:48	
Aroclor 1221	ND	0.10	ug/l	1	02/28/14 22:48	
Aroclor 1232	ND	0.10	ug/l	1	02/28/14 22:48	
Aroclor 1242	ND	0.10	ug/l	1	02/28/14 22:48	
Aroclor 1248	ND	0.10	ug/l	1	02/28/14 22:48	
Aroclor 1254	ND	0.10	ug/l	1	02/28/14 22:48	
Aroclor 1260	ND	0.10	ug/l	1	02/28/14 22:48	
beta-BHC	ND	0.010	ug/l	1	02/28/14 22:48	
Chlordane (tech)	ND	0.10	ug/l	1	02/28/14 22:48	
Chlorothalonil	ND	0.050	ug/l	1	02/28/14 22:48	
delta-BHC	ND	0.010	ug/l	1	02/28/14 22:48	
Dieldrin	ND	0.010	ug/l	1	02/28/14 22:48	
Endosulfan I	ND	0.010	ug/l	1	02/28/14 22:48	
Endosulfan II	ND	0.010	ug/l	1	02/28/14 22:48	
Endosulfan sulfate	ND	0.010	ug/l	1	02/28/14 22:48	
Endrin	ND	0.010	ug/l	1	02/28/14 22:48	
Endrin aldehyde	ND	0.010	ug/l	1	02/28/14 22:48	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	02/28/14 22:48	
Heptachlor	ND	0.010	ug/l	1	02/28/14 22:48	
Heptachlor epoxide	ND	0.010	ug/l	1	02/28/14 22:48	
Hexachlorobenzene	ND	0.010	ug/l	1	02/28/14 22:48	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	02/28/14 22:48	
Methoxychlor	ND	0.010	ug/l	1	02/28/14 22:48	
PCBs, Total	ND	0.50	ug/l	1	02/28/14 22:48	
Propachlor	ND	0.050	ug/l	1	02/28/14 22:48	
Toxaphene	ND	1.0	ug/l	1	02/28/14 22:48	
Trifluralin	ND	0.010	ug/l	1	02/28/14 22:48	
Surr: Decachlorobiphenyl	76 %	Conc:0.0727	70-130	%		
Surr: Tetrachloro-meta-xylene	84 %	Conc:0.0796	70-130	%		



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:17

4B25020-01 CX-B1WQ Zone #5 (84-94 ft bgs)

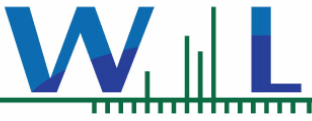
Sampled: 02/23/14 16:20

Sampled By: Nathan Reynolds

Matrix: Water

Sample Note: 12030

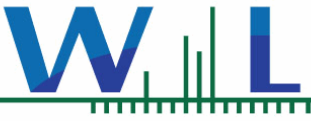
Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:17

QUALITY CONTROL SECTION



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:17

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

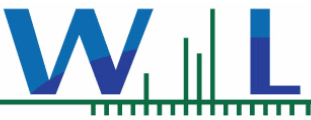
Batch W4C0014 - EPA 9056A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4C0014-BLK1)				Analyzed: 03/01/14 18:00						
Iodide	ND	10	ug/l							
LCS (W4C0014-BS1)				Analyzed: 03/01/14 18:00						
Iodide	45.0	10	ug/l	40.0		113	85-115			
Matrix Spike (W4C0014-MS1)				Source: 4B25020-01 Analyzed: 03/01/14 18:00						
Iodide	836	250	ug/l	1000	161	68	80-120			MS-01
Matrix Spike Dup (W4C0014-MSD1)				Source: 4B25020-01 Analyzed: 03/01/14 18:00						
Iodide	984	250	ug/l	1000	161	82	80-120	16	20	

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B1139 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B1139-BLK1)				Analyzed: 02/28/14 16:10						
4,4'-DDD	ND	0.010	ug/l							
4,4'-DDE	ND	0.010	ug/l							
4,4'-DDT	ND	0.010	ug/l							
Aldrin	ND	0.010	ug/l							
alpha-BHC	ND	0.010	ug/l							
Aroclor 1016	ND	0.10	ug/l							
Aroclor 1221	ND	0.10	ug/l							
Aroclor 1232	ND	0.10	ug/l							
Aroclor 1242	ND	0.10	ug/l							
Aroclor 1248	ND	0.10	ug/l							
Aroclor 1254	ND	0.10	ug/l							
Aroclor 1260	ND	0.10	ug/l							
beta-BHC	ND	0.010	ug/l							
Chlordane (tech)	ND	0.10	ug/l							
Chlorothalonil	ND	0.050	ug/l							
delta-BHC	ND	0.010	ug/l							
Dieldrin	ND	0.010	ug/l							
Endosulfan I	ND	0.010	ug/l							
Endosulfan II	ND	0.010	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							
Endrin	ND	0.010	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.010	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.010	ug/l							
Hexachlorobenzene	ND	0.010	ug/l							
Hexachlorocyclopentadiene	ND	0.050	ug/l							
Methoxychlor	ND	0.010	ug/l							
PCBs, Total	ND	0.50	ug/l							



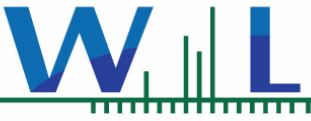
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:17

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B1139 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B1139-BLK1)										
Analyzed: 02/28/14 16:10										
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
<i>Surr: Decachlorobiphenyl</i>	0.0947		ug/l	0.100		95	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0904		ug/l	0.100		90	70-130			
LCS (W4B1139-BS1)										
Analyzed: 02/28/14 17:42										
4,4'-DDD	0.0801	0.010	ug/l	0.100		80	55-142			
4,4'-DDE	0.0848	0.010	ug/l	0.100		85	49-129			
4,4'-DDT	0.0979	0.010	ug/l	0.100		98	54-160			
Aldrin	0.0759	0.010	ug/l	0.100		76	29-115			
alpha-BHC	0.0802	0.010	ug/l	0.100		80	59-131			
beta-BHC	0.0789	0.010	ug/l	0.100		79	63-136			
delta-BHC	0.0881	0.010	ug/l	0.100		88	59-137			
Dieldrin	0.0832	0.010	ug/l	0.100		83	59-135			
Endosulfan I	0.0689	0.010	ug/l	0.100		69	28-138			
Endosulfan II	0.0754	0.010	ug/l	0.100		75	53-133			
Endosulfan sulfate	0.0877	0.010	ug/l	0.100		88	58-155			
Endrin	0.0585	0.010	ug/l	0.100		59	57-148			
Endrin aldehyde	0.0597	0.010	ug/l	0.100		60	45-139			
gamma-BHC (Lindane)	0.0802	0.010	ug/l	0.100		80	59-129			
Heptachlor	0.0817	0.010	ug/l	0.100		82	42-136			
Heptachlor epoxide	0.0809	0.010	ug/l	0.100		81	59-134			
Methoxychlor	0.0870	0.010	ug/l	0.100		87	56-167			
<i>Surr: Decachlorobiphenyl</i>	0.0903		ug/l	0.100		90	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0827		ug/l	0.100		83	70-130			
LCS Dup (W4B1139-BSD1)										
Analyzed: 02/28/14 17:11										
4,4'-DDD	0.0789	0.010	ug/l	0.100		79	55-142	2	25	
4,4'-DDE	0.0850	0.010	ug/l	0.100		85	49-129	0.2	25	
4,4'-DDT	0.0947	0.010	ug/l	0.100		95	54-160	3	25	
Aldrin	0.0777	0.010	ug/l	0.100		78	29-115	2	25	
alpha-BHC	0.0813	0.010	ug/l	0.100		81	59-131	1	25	
beta-BHC	0.0799	0.010	ug/l	0.100		80	63-136	1	25	
delta-BHC	0.0883	0.010	ug/l	0.100		88	59-137	0.3	25	
Dieldrin	0.0844	0.010	ug/l	0.100		84	59-135	1	25	
Endosulfan I	0.0700	0.010	ug/l	0.100		70	28-138	2	25	
Endosulfan II	0.0756	0.010	ug/l	0.100		76	53-133	0.3	25	
Endosulfan sulfate	0.0871	0.010	ug/l	0.100		87	58-155	0.7	25	
Endrin	0.0740	0.010	ug/l	0.100		74	57-148	23	25	
Endrin aldehyde	0.0748	0.010	ug/l	0.100		75	45-139	22	25	
gamma-BHC (Lindane)	0.0813	0.010	ug/l	0.100		81	59-129	1	25	
Heptachlor	0.0828	0.010	ug/l	0.100		83	42-136	1	25	
Heptachlor epoxide	0.0816	0.010	ug/l	0.100		82	59-134	0.8	25	
Methoxychlor	0.0835	0.010	ug/l	0.100		84	56-167	4	25	
<i>Surr: Decachlorobiphenyl</i>	0.172		ug/l	0.200		86	70-130			



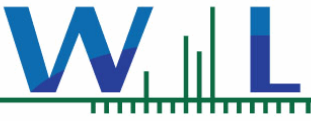
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:17

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4B1139 - EPA 508

Analyte	Reporting Result	Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W4B1139-BSD1)				Analyzed: 02/28/14 17:11						
<i>Surr: Tetrachloro-meta-xylene</i>	0.161		ug/l	0.200		81	70-130			



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 02/25/14 09:40
Date Reported: 03/04/14 21:17

Notes and Definitions

MS-01	The spike recovery for this QC sample is outside of established control limits possibly due to sample matrix interference.
M-05	Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
J	Estimated conc. detected <MRL and >MDL.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1402896

Report Created for: Monterey Bay Analytical
4 Justin Court, Suite D
Monterey, CA 93940

Project Contact: David Holland
Project P.O.:
Project Name: CalAm

Project Received: 02/26/2014

Analytical Report reviewed & approved for release on 02/28/2014 by:

Question about
your data?

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: CalAm

WorkOrder: 1402896

Glossary

Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical

Qualifier

a1 sample diluted due to matrix interference



McC Campbell Analytical, Inc.
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1534 Willow Pass Road, Pittsburg, CA 94565-1701
 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #2 (237-247 ft bgs) (dissol	1402896-002A	Water/DISS.	02/19/2014 16:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	210	100	20	02/27/2014 19:31
Strontium	11,000	400	20	02/27/2014 19:31

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #3 (182-192 ft bgs) (dissol	1402896-004A	Water/DISS.	02/21/2014 13:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	ND	100	20	02/27/2014 14:48
Strontium	12,000	400	20	02/27/2014 14:48

Analytical Comments: a1

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #4 (134-144 ft bgs) (dissol	1402896-006A	Water/DISS.	02/22/2014 14:45	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	120	100	20	02/27/2014 19:37
Strontium	9400	400	20	02/27/2014 19:37

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #5 (84-94 ft bgs) (dissolve	1402896-008A	Water/DISS.	02/23/2014 16:20	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	ND	100	20	02/27/2014 19:43
Strontium	10,000	400	20	02/27/2014 19:43

Analytical Comments: a1

(Cont.)



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 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: Monterey Bay Analytical

WorkOrder: 1402896

Project: CalAm

Extraction Method: E200.8

Date Received: 2/26/14 11:35

Analytical Method: E200.8

Date Prepared: 2/26/14

Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #6 (51-61 ft bgs) (dissolve	1402896-010A	Water/DISS.	02/25/2014 09:10	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Barium	100		100	20	02/27/2014 19:48
Strontium	9500		400	20	02/27/2014 19:48



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http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #2 (237-247 ft bgs)	1402896-001A	Water/TOTAL	02/19/2014 16:10	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aluminum	ND		1000	20	02/27/2014 15:23
Arsenic	ND		10	20	02/27/2014 15:23
Copper	ND		10	20	02/27/2014 15:23
Lithium	120		100	20	02/27/2014 15:23
Zinc	ND		100	20	02/27/2014 15:23
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	104		70-130		02/27/2014 15:23
CX-BIWQ Zone #3 (182-192 ft bgs)	1402896-003A	Water/TOTAL	02/21/2014 13:10	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aluminum	ND		1000	20	02/27/2014 15:28
Arsenic	ND		10	20	02/27/2014 15:28
Copper	ND		10	20	02/27/2014 15:28
Lithium	140		100	20	02/27/2014 15:28
Zinc	ND		100	20	02/27/2014 15:28
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	111		70-130		02/27/2014 15:28
CX-BIWQ Zone #4 (134-144 ft bgs)	1402896-005A	Water/TOTAL	02/22/2014 14:45	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aluminum	ND		1000	20	02/27/2014 15:34
Arsenic	ND		10	20	02/27/2014 15:34
Copper	ND		10	20	02/27/2014 15:34
Lithium	120		100	20	02/27/2014 15:34
Zinc	ND		100	20	02/27/2014 15:34
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	104		70-130		02/27/2014 15:34

(Cont.)



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 http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #5 (84-94 ft bgs)	1402896-007A	Water/TOTAL	02/23/2014 16:20	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aluminum	ND		1000	20	02/27/2014 15:40
Arsenic	ND		10	20	02/27/2014 15:40
Copper	ND		10	20	02/27/2014 15:40
Lithium	170		100	20	02/27/2014 15:40
Zinc	ND		100	20	02/27/2014 15:40
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	109		70-130		02/27/2014 15:40

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #6 (51-61 ft bgs)	1402896-009A	Water/TOTAL	02/25/2014 09:10	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Aluminum	ND		1000	20	02/27/2014 15:45
Arsenic	ND		10	20	02/27/2014 15:45
Copper	ND		10	20	02/27/2014 15:45
Lithium	140		100	20	02/27/2014 15:45
Zinc	ND		100	20	02/27/2014 15:45
<u>Surrogates</u>	<u>REC (%)</u>		<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	110		70-130		02/27/2014 15:45



Quality Control Report

Client: Monterey Bay Analytical
Date Prepared: 2/26/14
Date Analyzed: 2/27/14
Instrument: ICP-MS1
Matrix: Water
Project: CalAm

WorkOrder: 1402896
BatchID: 87508
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L
Sample ID: MB/LCS-87508
 1402903-004CMS/MSD

QC Summary Report for E200.8

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aluminum	ND	475.4	50	500	-	95.1	85-115
Arsenic	ND	46.74	0.50	50	-	93.5	85-115
Barium	ND	451.9	5.0	500	-	90.4	85-115
Copper	ND	48.31	0.50	50	-	96.6	85-115
Lithium	ND	47.95	5.0	50	-	95.9	85-115
Strontium	ND	496	20	500	-	99.2	85-115
Zinc	ND	489.9	5.0	500	-	98	85-115

Surrogate Recovery

Tb 350.917	695.7	710.9		750	93	95	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aluminum	1373	1438	500	863.6	102	115	70-130	4.62	20
Arsenic	47.91	48.87	50	0.84	94.1	96.1	70-130	1.98	20
Barium	473.2	485.6	500	18	91	93.5	70-130	2.59	20
Copper	60.61	62.62	50	13.01	95.2	99.2	70-130	3.26	20
Lithium	49.57	51.07	50	ND	99.1	102	70-130	2.98	20
Strontium	532.9	553	500	36	99.4	103	70-130	3.70	20
Zinc	632.5	641.6	500	118.4	103	105	70-130	1.43	20

Surrogate Recovery

Tb 350.917	712.5	731	750		95	97	70-130	2.56	20
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McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1402896

ClientCode: MBAS

- WaterTrax
 WriteOn
 EDF
 Excel
 EQuIS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

David Holland
Monterey Bay Analytical
4 Justin Court, Suite D
Monterey, CA 93940
831-375-6227 FAX: 831-641-0734

Email: 4mbas@sbcglobal.net
cc:
PO:
ProjectNo: CalAm

Bill to:

Accounts Payable
Monterey Bay Analytical
4 Justin Court, Suite D
Monterey, CA 93940

Requested TAT:

3 days

Date Received: 02/26/2014

Date Printed: 02/26/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1402896-001	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	2/19/2014 16:10	<input type="checkbox"/>		A											
1402896-002	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	2/19/2014 16:10	<input type="checkbox"/>	A												
1402896-003	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	2/21/2014 13:10	<input type="checkbox"/>		A											
1402896-004	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	2/21/2014 13:10	<input type="checkbox"/>	A												
1402896-005	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	2/22/2014 14:45	<input type="checkbox"/>		A											
1402896-006	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	2/22/2014 14:45	<input type="checkbox"/>	A												
1402896-007	CX-BIWQ Zone #5 (84-94 ft bgs)	Water	2/23/2014 16:20	<input type="checkbox"/>		A											
1402896-008	CX-BIWQ Zone #5 (84-94 ft bgs) (dissolved)	Water	2/23/2014 16:20	<input type="checkbox"/>	A												
1402896-009	CX-BIWQ Zone #6 (51-61 ft bgs)	Water	2/25/2014 9:10	<input type="checkbox"/>		A											
1402896-010	CX-BIWQ Zone #6 (51-61 ft bgs) (dissolved)	Water	2/25/2014 9:10	<input type="checkbox"/>	A												

Test Legend:

1	METALSMS_DISS	2	METALSMS_W	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Jena Alfaro

Comments: Needs analysts initials for all reports per D.H. 4/5/13

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: MONTEREY BAY ANALYTICAL

QC Level: LEVEL 2

Work Order: 1402896

Project: CalAm

Client Contact: David Holland

Date Received: 2/26/2014

Comments: Needs analysts initials for all reports per D.H. 4/5/13

Contact's Email: 4mbas@sbcglobal.net

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1402896-001A	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/19/2014 16:10	3 days	None	<input type="checkbox"/>	
1402896-002A	CX-BIWQ Zone #2 (237-247 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/19/2014 16:10	3 days	None	<input type="checkbox"/>	
1402896-003A	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/21/2014 13:10	3 days	None	<input type="checkbox"/>	
1402896-004A	CX-BIWQ Zone #3 (182-192 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/21/2014 13:10	3 days	None	<input type="checkbox"/>	
1402896-005A	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/22/2014 14:45	3 days	None	<input type="checkbox"/>	
1402896-006A	CX-BIWQ Zone #4 (134-144 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/22/2014 14:45	3 days	None	<input type="checkbox"/>	
1402896-007A	CX-BIWQ Zone #5 (84-94 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/23/2014 16:20	3 days	None	<input type="checkbox"/>	
1402896-008A	CX-BIWQ Zone #5 (84-94 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/23/2014 16:20	3 days	None	<input type="checkbox"/>	
1402896-009A	CX-BIWQ Zone #6 (51-61 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/25/2014 9:10	3 days	None	<input type="checkbox"/>	
1402896-010A	CX-BIWQ Zone #6 (51-61 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/25/2014 9:10	3 days	None	<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

125mL HDPE w/ HNO3 = 125mL HDPE Bottle w/ Nitric Acid

250mL HDPE w/ HNO3 = 250mL HDPE Bottle w/ HNO3



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 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
 http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Sample Receipt Checklist

Client Name: **Monterey Bay Analytical** Date and Time Received: **2/26/2014 11:35:12 AM**
 Project Name: **CalAm** LogIn Reviewed by: **Jena Alfaro**
 WorkOrder N°: **1402896** Matrix: Water Carrier: UPS

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

* NOTE: If the "No" box is checked, see comments below.

 Comments:

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

pH QC Summary (SM 4500 H+)

Date Analyzed: 2/23/2014

	Value (pH Units)	Result (pH Units)	% Rec	Acceptance Criteria %Rec
IPC	6.86	6.88	100.3	95-105

Sample ID	Sample (pH Units)	Sample Dup (pH Units)	% RPD	Acceptance Criteria % RPD
AB12030	7.2	7.2	0.0	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
831.375.MBAS (6227), 831.641.0734 (Fax)
MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

MBAS QC Summary (SM 5540C)

Date Analyzed: 2/23/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	0.100	0.087	87	80-120

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

300.0 QC Summary

All units expressed in mg/L

	F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
	2	20	2	20	2	2	2
IPC	1.96	19.40	2.07	19.27	2.02	1.90	1.70
Recovery 90-110%	97.88	97.02	103.50	96.34	100.94	95.24	85.13
CCV1	1.93	19.49	2.08	19.43	2.03	1.92	1.79
Recovery 90-110%	96.57	97.43	104.18	97.15	101.47	95.84	89.38
RPD 10%	1.34	0.42	0.65	0.84	0.52	0.63	4.87

	F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
	2	20	2	20	2	2	2
AB12026	0.11	70.57	0.24	35.16	0.02	7.60	0.00
AB12026+LFM	2.07	90.75	1.93	54.67	1.78	9.82	1.32
AB12026+LFMD	2.03	90.42	1.90	54.28	1.75	9.80	1.31
Average	2.05	90.59	1.91	54.48	1.76	9.81	1.31
Recovery 80-120%	96.94	100.07	83.77	96.59	87.18	110.54	65.65
RPD 10%	1.62	0.36	1.66	0.72	1.62	0.20	0.57

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Specific Conductance QC Summary (SM 2510B)

Date Analyzed: 2/24/2014

	Value (umhos/cm)	Result (umhos/cm)	% Rec	Acceptance Criteria %Rec
IPC	1412	1412	100.0%	95-105

Sample ID	Sample (umhos/cm)	Sample Dup (umhos/cm)	% RPD	Acceptance Criteria % RPD
AB12170	2780	2782	0.1%	10
AB12203	118	118	0.0%	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Turbidity QC Summary (EPA 180.1)

Date Analyzed: 2/24/2014

	Value (NTU)	Result (NTU)	% Rec	Acceptance Criteria %Rec
IPC	1.00	1.01	101.0	95-105

Sample ID	Sample (NTU)	Sample Dup (NTU)	% RPD	Acceptance Criteria % RPD
AB12030	0.77	0.78	0.9	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
 http://www.MBASinc.com

TDS/TSS QC Summary (SM 2540C/D)

Date Analyzed: 2/25/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC 100	100	106	106	80-120
IPC 500	500	500	100	90-110

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12141	186	191	2.7	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
 http://www.MBASinc.com

Kjehldahl Nitrogen QC Summary (SM 4500-NH3)

Date: 2/25/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	5.0	4.820	96.4	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB11639	29.800	5.000	34.800	35.200	100	108	1.1	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

Batch # 20140225

Analyte/ WL	Range	IC	Prep	LCS	%Rec	LCSD	%Rec	%Diff	IC Verification			QCS (95-105%)		
		Blank	Blank	Value	85-115%	Value	85-115%		Value	Result	%Rec	Value	Result	%Rec
B 249.678	0.05-5ppm	0.00	0.00	1.03	103.3%	1.04	104.1%	0.7%	1	1.01	100.8%	1	0.99	99.3%
B 249.772	0.05-5ppm	0.00	0.00	1.03	102.7%	1.04	103.9%	1.2%	1	1.00	99.5%	1	0.99	99.1%
Ca 317.933	50-300ppm	-4.32	-4.33	49.6	99.3%	50.9	101.7%	2.4%	50	49.1	98.3%	50	48.7	97.4%
Ca 396.847	0.5-50ppm	-0.23	-0.24	50.1	100.3%	51.1	102.3%	2.0%	50	49.7	99.5%	50	49.5	99.1%
Cu 324.754	10ppb-100ppm	-7.83	-9.32	1008	100.8%	1031	103.1%	2.3%	1000	989	98.9%	1000	1002	100.2%
Cu 327.395	10ppb-100ppm	-3.71	-2.81	1018	101.8%	1037	103.7%	1.8%	1000	989	98.9%	1000	1005	100.5%
Fe 238.204	10ppb-100ppm	-0.01	0.65	998	99.8%	1008	100.8%	1.1%	1000	985	98.5%	1000	980	98.0%
Fe 259.940	10ppb-100ppm	-1.92	-2.32	1008	100.8%	1025	102.5%	1.6%	1000	992	99.2%	1000	995	99.5%
K 766.491	0.5-750ppm	0.06	0.04	9.9	99.2%	10.2	101.9%	2.7%	10	9.9	98.6%	10	9.9	98.9%
Mg 202.582	50-1000ppm	-1.92	-1.95	51.3	102.7%	51.9	103.8%	1.1%	50	50.1	100.3%	50	50.2	100.3%
Mg 279.076	0.5-50ppm	0.04	0.01	50.3	100.5%	50.8	101.6%	1.1%	50	49.3	98.7%	50	49.1	98.2%
Mn 257.610	10ppb-11ppm	-6.24	-6.61	1005	100.5%	1021	102.1%	1.5%	1000	988	98.8%	1000	978	97.8%
Mn 260.560	10ppb-11ppm	-6.06	-6.71	1006	100.6%	1015	101.5%	0.9%	1000	986	98.6%	1000	974	97.4%
Na 568.821	50-1000ppm	8.44	6.58	51.4	102.7%	54.1	108.1%	5.1%	50	50.7	101.3%	50	51.1	102.2%
Na 589.592	0.5-50ppm	0.11	0.04	49.9	99.9%	51.4	102.8%	2.9%	50	49.7	99.4%	50	49.6	99.1%
Si 251.611	0.5-200ppm	0.03	-0.03	51.1	102.3%	51.4	102.7%	0.4%	50	49.4	98.8%	107	105.0	98.2%
Si 252.411	0.5-200ppm	0.07	-0.01	50.9	101.8%	51.3	102.5%	0.7%	50	49.2	98.5%	107	105.0	98.1%
Zn 213.857	10ppb-50ppm	-12.44	-12.72	999	99.9%	1008	100.8%	0.9%	1000	974	97.4%	1000	967	96.7%

Matrix Spikes

Sample ID AB12040

Analyte/ WL	Sample Value	MS	%Rec	MSD	%Rec	%Diff	CCV (90-110%)			%Diff	CC
		Value	70-130%	Value	70-130%		Value	Result	%Rec	10%	Blank
B 249.678	0.09	1.12	102.9%	1.09	100.2%	2.5%	1	1.04	104.1%	3.3%	0.00
B 249.772	0.09	1.13	103.9%	1.11	101.8%	1.8%	1	1.06	105.6%	5.9%	0.00
Ca 317.933	136.6	186.1	99.0%	184.0	94.8%	1.1%	50	50.3	100.6%	2.3%	-4.35
Ca 396.847	115.2	149.6	68.7%	148.1	65.8%	1.0%	50	50.4	100.9%	1.4%	-0.25
Cu 324.754	31	1071	104.0%	1053	102.2%	1.7%	1000	1012	101.2%	2.3%	-7.80
Cu 327.395	34	1106	107.2%	1085	105.1%	1.9%	1000	1037	103.7%	4.8%	-7.04
Fe 238.204	761	1738	97.7%	1717	95.6%	1.2%	1000	1004	100.4%	1.9%	-2.79
Fe 259.940	775	1772	99.7%	1754	97.9%	1.0%	1000	1007	100.7%	1.4%	-1.97
K 766.491	3.6	13.9	103.1%	13.7	100.5%	1.9%	10	10.1	100.9%	2.2%	0.07

Mg 202.582	23.1	77.8	109.6%	76.7	107.4%	1.4%	50	52.5	105.0%	4.6%	-1.95
Mg 279.074	22.7	73.2	101.0%	72.2	99.0%	1.4%	50	50.3	100.6%	1.9%	0.01
Mn 257.610	87	1104	101.7%	1090	100.3%	1.3%	1000	1011	101.1%	2.3%	-7.07
Mn 260.568	89	1111	102.2%	1097	100.8%	1.3%	1000	1017	101.7%	3.1%	-7.40
Na 568.821	96.9	149.1	104.3%	145.2	96.5%	2.7%	50	55.1	110.2%	8.4%	6.53
Na 589.592	90.0	140.9	101.7%	138.3	96.6%	1.8%	50	51.5	103.0%	3.6%	0.44
Si 251.611	31.0	81.6	101.1%	80.6	99.0%	1.3%	50	52.4	104.8%	5.9%	-0.08
Si 252.411	30.5	79.8	98.4%	78.6	96.2%	1.4%	50	51.2	102.3%	3.8%	-0.02
Zn 213.857	22	1051	102.9%	1040	101.8%	1.0%	1000	1013	101.3%	3.9%	-16.83

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 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Ammonia by Electrode QC Summary (SM 4500-NH3)

Date: 3/5/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC Low	0.050	0.043	86	90-110
IPC	0.500	0.462	92.4	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12148	0.020	0.500	0.536	0.550	103.2	106	2.6	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; IPC = Instrument Performance Check

RPD = Relative Percent Difference; Rec = Recovery



Cal Am Water Company
Travis Peterson
511 Pacific Lodge Road, Suite 100
Pacific Grove, CA 93950

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montereybayanalytical@usa.net

ELAP Certification Number: 2385

Page 1 of 2

Wednesday, March 12, 2014

Lab Number: AB12148

Collection Date/Time: 2/25/2014 9:10 Sample Collector: REYNOLDS, N
Submittal Date/Time: 2/25/2014 12:40 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-BIWQ Zone #6 (51-61 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO ₃)	SM2320B	mg/L	103		2		2/26/2014	LRH
Aluminum, Total	EPA200.8	ug/L	Not Detected		10	1000	2/27/2014	MC LAB
Ammonia-N, Dissolved	SM4500NH3 D	mg/L	Not Detected		0.05		3/5/2014	DH
Arsenic, Total	EPA200.8	ug/L	Not Detected		1	10	2/27/2014	MC LAB
Barium, Dissolved	EPA200.8	ug/L	100		10		2/27/2014	MC LAB
Bicarbonate (as HCO ₃ ⁻)	SM2320B	mg/L	126		10		2/26/2014	DH
Boron, Dissolved	EPA200.7	mg/L	2.40		0.05		3/5/2014	DC
Bromide, Dissolved	EPA300.0	mg/L	38		10		2/26/2014	DC
Calcium	EPA200.7	mg/L	710		0.5		3/5/2014	DC
Calcium, Dissolved	EPA200.7	mg/L	709		0.5		3/5/2014	DC
Carbamates by HPLC (EPA 531)	EPA531	ug/L	Not Detected	E			2/25/2014	BSK
Carbonate as CaCO ₃	SM2320B	mg/L	Not Detected		10		2/26/2014	DH
Chloride, Dissolved	EPA300.0	mg/L	13675		100		2/26/2014	DC
Chlorinated Pesticides and PCB (EP	EPA508	ug/L	Not Detected	E			3/4/2014	WECK
Color, Apparent (Unfiltered)	SM2120B	Color Units	4		3	15	2/25/2014	LRH
Copper, Total	EPA200.8	ug/L	Not Detected		4	1300	2/27/2014	MC LAB
DBCP & EDB	EPA504.1	ug/L	Not Detected	E			2/20/2014	BSK
Dioxin	EPA-5 1613B	pg/L	Not Detected	E			3/9/2014	CERES
Diquat (EPA 549)	EPA549	ug/L	Not Detected	E			2/25/2014	BSK
Dissolved Anions		Meq/L	424.8				3/6/2014	DH
Dissolved Cations		Meq/L	387.0				3/6/2014	DH
Endothall	EPA548.1	ug/L	Not Detected	E			2/20/2014	BSK
Fluoride, Dissolved	EPA300.0	mg/L	0.3		0.1		2/26/2014	DC
Glyphosate	EPA547	ug/L	Not Detected	E			2/20/2014	BSK
Hardness (as CaCO ₃)	SM2340B	mg/L	5561		10		3/12/2014	DH
Hydroxide	SM2320B	mg/L	Not Detected		5		2/26/2014	DH
Iodide	EPA9056M	ug/L	Not Detected	E	10		3/1/2014	WECK
Iron	EPA200.7	ug/L	162		10	300	3/5/2014	DC
Iron, Dissolved	EPA200.7	ug/L	57		10	300	3/5/2014	DC
Kjeldahl Nitrogen, Dissolved	SM4500-NH3 B,	mg/L	Not Detected		0.5		3/3/2014	HM
Lithium	EPA200.8	ug/L	140		1		2/27/2014	MC LAB
Magnesium	EPA200.7	mg/L	920		0.5		3/5/2014	DC
Magnesium, Dissolved	EPA200.7	mg/L	928		1		3/5/2014	DC
Manganese, Dissolved	EPA200.7	ug/L	172		10	50	3/5/2014	DC
Manganese, Total	EPA200.7	ug/L	131		10	50	2/25/2014	DC

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level

H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See Report attachments T = Temperature Exceedance

Lab Number: AB12148

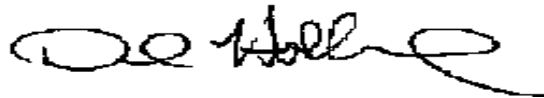
Collection Date/Time: 2/25/2014 9:10 Sample Collector: REYNOLDS, N
 Submittal Date/Time: 2/25/2014 12:40 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-BIWQ Zone #6 (51-61 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
MBAS (Surfactants)	SM5540C	mg/L	Not Detected	H	0.05	0.50	2/28/2014	DC
Nitrate as NO3	EPA300.0	mg/L	3		1	45	2/26/2014	DC
Nitrate+Nitrite as N	EPA300.0	mg/L	0.8		0.1		2/26/2014	DC
Nitrite as NO2-N, Dissolved	EPA300.0	mg/L	Not Detected		0.1		2/26/2014	DC
Odor Threshold at 60 C	SM2150B	TON	1		1	3	2/25/2014	LRH
o-Phosphate-P, Dissolved	Hach 8190	mg/L	Not Detected		0.1		2/26/2014	DC
pH (Field Test)	SM4500-H+B	pH	7.18				2/25/2014	NR
pH (Laboratory)	SM4500-H+B	pH (H)	7.3				2/25/2014	HM
Phenoxy Acid Herbicides (515.3)	EPA515.3	ug/L	Not Detected	E			2/23/2014	BSK
Phosphorus, Dissolved	HACH 8190	mg/L	Not Detected		0.03		3/2/2014	DH
Potassium	EPA200.7	mg/L	187		0.5		2/25/2014	DC
Potassium, Dissolved	EPA200.7	mg/L	186		0.1		3/5/2014	DC
QC Ratio TDS/SEC	Calculation		0.67				2/28/2014	DH
Reg. Org. Compounds (EPA 525)	EPA525	ug/L	Not Detected	E			2/22/2014	BSK
Silica as SiO2, Dissolved	EPA200.7	mg/L	18.0		0.5		3/5/2014	DC
Sodium	EPA200.7	mg/L	6253		0.5		2/25/2014	DC
Sodium, Dissolved	EPA200.7	mg/L	6219		0.5		3/5/2014	DC
Specific Conductance (E.C)	SM2510B	umhos/cm	37260		1	900	2/25/2014	HM
Specific Conductance (E.C) (Field)	SM2510B	umhos/cm	35952		1		2/25/2014	NR
Strontium, Dissolved	EPA200.8	ug/L	9500		5		2/27/2014	MC LAB
Sulfate	EPA300.0	mg/L	1748		1	250	2/26/2014	DC
Temperature (Field)	SM2550	° C	17.5				2/25/2014	NR
Total Cations		Meq/L	387.9				3/6/2014	DH
Total Diss. Solids	SM2540C	mg/L	24800		10	500	2/26/2014	HM
Turbidity	EPA180.1	NTU	0.45		0.05	5.0	2/25/2014	LRH
Turbidity (Field)	EPA180.1	NTU	0.33		0.05		2/25/2014	NR
Volatile Org. Compounds (524)	EPA524	ug/L	Not Detected	E			2/19/2014	BSK
Zinc, Total	EPA200.8	ug/L	Not Detected		10	5000	2/27/2014	MC LAB

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12148 Zone 6 Diss**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	6219	0.04350	270.53
Potassium	186	0.02558	4.76
Calcium	709	0.04990	35.38
Magnesium	928	0.08229	76.37
NH3-N	0	0.07143	0.00
		SUM	387.03

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	103	0.02000	2.06
Sulfate	1748	0.02082	36.39
Chloride	13675	0.02821	385.77
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0.8	0.07138	0.06
Phosphate-P	0.0	0.01031	0.00
Fluoride	0.0	0.05264	0.00
Bromide	38.0	0.01252	0.48
		SUM	424.76

ANION-CATION BALANCE **-5** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	37260	
Cation Sum X 100	38703	104%
Anion Sum X 100	42476	114%

Note: In Natural Waters, Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	36.2
Ca+Mg+Na	382.27
HCO ₃ /Ca	0.06
dS/m	37.26
Value Table II	1.5
SAR adj	43.4

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12148 Zone 6 Total**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	6253	0.04350	272.01
Potassium	187	0.02558	4.78
Calcium	710	0.04990	35.43
Magnesium	920	0.08229	75.71
NH3-N	0	0.07143	0.00
		SUM	387.92

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	103	0.02000	2.06
Sulfate	1748	0.02082	36.39
Chloride	13675	0.02821	385.77
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0.8	0.07138	0.06
Phosphate-P	0.0	0.01031	0.00
Fluoride	0.0	0.05264	0.00
Bromide	38.0	0.01252	0.48
		SUM	424.76

ANION-CATION BALANCE **-5** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	37260	
Cation Sum X 100	38792	104%
Anion Sum X 100	42476	114%

Note: In Natural Waters, Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	36.5
Ca+Mg+Na	383.14
HCO ₃ /Ca	0.06
dS/m	37.26
Value Table II	1.5
SAR adj	43.8

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Appendix G

A4B1898

3/04/2014

Invoice: A405246

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

RE: Report for A4B1898 Cal Am

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 2/26/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAP Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montieth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montieth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: Monterey Bay Analytical
Report To: David Holland
Project #: -
Received: 2/26/2014 - 10:30
Report Due: 3/05/2014

Invoice To: Monterey Bay Analytical
Invoice Attn: David Holland
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 3.8	COC/Labels Agree
	Received On Wet Ice
	Packing Material - Bubble Wrap
	Sample(s) were received in temperature range.
	Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- BS6.0 BS/BSD RPD exceeded method acceptance limits
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.

Report Distribution

Recipient(s)	Report Format
David Holland	Final.rpt

Certificate of Analysis

Sample ID: A4B1898-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #6 (51-61 ft bgs) // 12148

Sample Date - Time: 02/25/14 - 09:10
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A402472	02/27/14	02/28/14	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A402472	02/27/14	02/28/14	
Surrogate: 1-Br-2-Nitrobenzene	EPA 504.1	97 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A402552	02/28/14	03/02/14	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A402552	02/28/14	03/02/14	
2,4-D	EPA 515.3	ND	10	ug/L	1	A402552	02/28/14	03/02/14	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A402552	02/28/14	03/02/14	
Dalapon	EPA 515.3	ND	10	ug/L	1	A402552	02/28/14	03/02/14	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A402552	02/28/14	03/02/14	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A402552	02/28/14	03/02/14	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A402552	02/28/14	03/02/14	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A402552	02/28/14	03/02/14	
Surrogate: DCPAA	EPA 515.3	71 %	<i>Acceptable range: 70-130 %</i>						
<u>Volatile Organics by GC-MS</u>									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A402445	02/28/14	02/28/14	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A402445	02/28/14	02/28/14	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A402445	02/28/14	02/28/14	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A402445	02/28/14	02/28/14	
Acetone	EPA 524.2	ND	10	ug/L	1	A402445	02/28/14	02/28/14	

Certificate of Analysis

Sample ID: A4B1898-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #6 (51-61 ft bgs) // 12148

Sample Date - Time: 02/25/14 - 09:10
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics by GC-MS									
Benzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	BS1.0, CV0.0
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A402445	02/28/14	02/28/14	BS1.0
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	BS1.0
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	BS1.0, CV0.0
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A402445	02/28/14	02/28/14	BS1.0
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A402445	02/28/14	02/28/14	BS1.0, CV0.0
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A402445	02/28/14	02/28/14	

Certificate of Analysis

Sample ID: A4B1898-01
Sampled By: Nathan Reynolds
Sample Description: CX-BIWQ Zone #6 (51-61 ft bgs) // 12148

Sample Date - Time: 02/25/14 - 09:10
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A402445	02/28/14	02/28/14	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	96 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	96 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A402556	03/01/14	03/03/14	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A402556	03/01/14	03/03/14	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A402556	03/01/14	03/03/14	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A402556	03/01/14	03/03/14	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A402556	03/01/14	03/03/14	BS1.0
Bromacil	EPA 525.2	ND	10	ug/L	1	A402556	03/01/14	03/03/14	BS1.0
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A402556	03/01/14	03/03/14	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A402556	03/01/14	03/03/14	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A402556	03/01/14	03/03/14	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A402556	03/01/14	03/03/14	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A402556	03/01/14	03/03/14	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A402556	03/01/14	03/03/14	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A402556	03/01/14	03/03/14	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A402556	03/01/14	03/03/14	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A402556	03/01/14	03/03/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	114 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A402440	02/26/14	02/27/14	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A402440	02/26/14	02/27/14	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A402440	02/26/14	02/27/14	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A402440	02/26/14	02/27/14	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A402440	02/26/14	02/27/14	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A402440	02/26/14	02/27/14	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A402440	02/26/14	02/27/14	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A402440	02/26/14	02/27/14	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A402555	03/01/14	03/01/14	
Surrogate: AMPA	EPA 547	109 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A402503	02/27/14	02/28/14	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A402584	03/03/14	03/03/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A402472

Prepared: 02/27/2014

Prep Method: EPA 504.1

Analyst: PYA

Blank (A402472-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							02/28/14	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							02/28/14	
Surrogate: 1-Br-2-Nitrobenzene	2.2			2.3		97	70-130			02/28/14	

Blank Spike (A402472-BS1)

Dibromochloropropane (DBCP)	0.13	0.010	ug/L	0.12		105	70-130			02/28/14	
Ethylene Dibromide (EDB)	0.12	0.020	ug/L	0.12		96	70-130			02/28/14	
Surrogate: 1-Br-2-Nitrobenzene	2.2			2.3		98	70-130			02/28/14	

Blank Spike Dup (A402472-BSD1)

Dibromochloropropane (DBCP)	0.13	0.010	ug/L	0.12		104	70-130	1	20	02/28/14	
Ethylene Dibromide (EDB)	0.12	0.020	ug/L	0.12		96	70-130	0	20	02/28/14	
Surrogate: 1-Br-2-Nitrobenzene	2.2			2.3		97	70-130			02/28/14	

Matrix Spike (A402472-MS1), Source: A4B1302-02

Dibromochloropropane (DBCP)	0.13	0.010	ug/L	0.12	ND	105	65-135			02/28/14	
Ethylene Dibromide (EDB)	0.12	0.020	ug/L	0.12	ND	95	65-135			02/28/14	
Surrogate: 1-Br-2-Nitrobenzene	2.2			2.3		96	70-130			02/28/14	

EPA 515.3 - Quality Control

Batch: A402552

Prepared: 02/28/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank (A402552-BLK1)

2,4,5-T	ND	1.0	ug/L							03/02/14	
2,4,5-TP (Silvex)	ND	1.0	ug/L							03/02/14	
2,4-D	ND	10	ug/L							03/02/14	
Bentazon	ND	2.0	ug/L							03/02/14	
Dalapon	ND	10	ug/L							03/02/14	
Dicamba	ND	1.5	ug/L							03/02/14	
Dinoseb	ND	2.0	ug/L							03/02/14	
Pentachlorophenol	ND	0.20	ug/L							03/02/14	
Picloram	ND	1.0	ug/L							03/02/14	
Surrogate: DCPAA	46			58		80	70-130			03/02/14	

Blank Spike (A402552-BS1)

2,4,5-T	4.1	1.0	ug/L	4.0		103	70-130			03/02/14	
2,4,5-TP (Silvex)	0.84	1.0	ug/L	0.80		105	70-130			03/02/14	
2,4-D	0.46	10	ug/L	0.40		115	70-130			03/02/14	
Bentazon	8.9	2.0	ug/L	8.0		111	70-130			03/02/14	
Dalapon	4.1	10	ug/L	4.0		101	70-130			03/02/14	
Dicamba	6.2	1.5	ug/L	6.0		103	70-130			03/02/14	
Dinoseb	0.82	2.0	ug/L	0.80		102	70-130			03/02/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16		100	70-130			03/02/14	
Picloram	0.41	1.0	ug/L	0.40		104	70-130			03/02/14	
Surrogate: DCPAA	47			58		80	70-130			03/02/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A402552

Prepared: 02/28/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A402552-BSD1)

2,4,5-T	4.2	1.0	ug/L	4.0		105	70-130	2	20	03/02/14	
2,4,5-TP (Silvex)	0.83	1.0	ug/L	0.80		103	70-130	2	20	03/02/14	
2,4-D	0.47	10	ug/L	0.40		118	70-130	2	20	03/02/14	
Bentazon	8.7	2.0	ug/L	8.0		109	70-130	2	20	03/02/14	
Dalapon	4.2	10	ug/L	4.0		106	70-130	4	20	03/02/14	
Dicamba	6.1	1.5	ug/L	6.0		101	70-130	2	20	03/02/14	
Dinoseb	0.81	2.0	ug/L	0.80		102	70-130	1	20	03/02/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16		98	70-130	2	20	03/02/14	
Picloram	0.43	1.0	ug/L	0.40		107	70-130	4	20	03/02/14	
Surrogate: DCPAA	45			58		78	70-130			03/02/14	

Matrix Spike (A402552-MS1), Source: A4B1782-01

2,4,5-T	4.2	1.0	ug/L	4.0	ND	104	70-130			03/02/14	
2,4,5-TP (Silvex)	0.85	1.0	ug/L	0.80	ND	106	70-130			03/02/14	
2,4-D	0.47	10	ug/L	0.40	ND	117	70-130			03/02/14	
Bentazon	8.8	2.0	ug/L	8.0	ND	110	70-130			03/02/14	
Dalapon	4.2	10	ug/L	4.0	ND	105	70-130			03/02/14	
Dicamba	6.0	1.5	ug/L	6.0	ND	101	70-130			03/02/14	
Dinoseb	0.82	2.0	ug/L	0.80	ND	102	70-130			03/02/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	97	70-130			03/02/14	
Picloram	0.41	1.0	ug/L	0.40	ND	103	70-130			03/02/14	
Surrogate: DCPAA	47			58		81	70-130			03/02/14	

Matrix Spike Dup (A402552-MSD1), Source: A4B1782-01

2,4,5-T	4.1	1.0	ug/L	4.0	ND	103	70-130	1	20	03/02/14	
2,4,5-TP (Silvex)	0.84	1.0	ug/L	0.80	ND	105	70-130	1	20	03/02/14	
2,4-D	0.51	10	ug/L	0.40	ND	127	70-130	9	20	03/02/14	
Bentazon	8.8	2.0	ug/L	8.0	ND	110	70-130	0	20	03/02/14	
Dalapon	4.1	10	ug/L	4.0	ND	102	70-130	3	20	03/02/14	
Dicamba	6.0	1.5	ug/L	6.0	ND	100	70-130	1	20	03/02/14	
Dinoseb	0.80	2.0	ug/L	0.80	ND	101	70-130	2	20	03/02/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	97	70-130	0	20	03/02/14	
Picloram	0.40	1.0	ug/L	0.40	ND	99	70-130	4	20	03/02/14	
Surrogate: DCPAA	46			58		80	70-130			03/02/14	

EPA 524.2 - Quality Control

Batch: A402445

Prepared: 02/28/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402445-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							02/28/14	
1,1,1-Trichloroethane	ND	0.50	ug/L							02/28/14	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							02/28/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							02/28/14	
1,1,2-Trichloroethane	ND	0.50	ug/L							02/28/14	
1,1-Dichloroethane	ND	0.50	ug/L							02/28/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402445

Prepared: 02/28/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402445-BLK1)

1,1-Dichloroethene	ND	0.50	ug/L							02/28/14	
1,1-Dichloropropene	ND	0.50	ug/L							02/28/14	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							02/28/14	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							02/28/14	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							02/28/14	
1,2-Dichlorobenzene	ND	0.50	ug/L							02/28/14	
1,2-Dichloroethane	ND	0.50	ug/L							02/28/14	
1,2-Dichloropropane	ND	0.50	ug/L							02/28/14	
1,3,5-Trimethylbenzene	ND	0.50	ug/L							02/28/14	
1,3-Dichlorobenzene	ND	0.50	ug/L							02/28/14	
1,3-Dichloropropane	ND	0.50	ug/L							02/28/14	
1,4-Dichlorobenzene	ND	0.50	ug/L							02/28/14	
2,2-Dichloropropane	ND	0.50	ug/L							02/28/14	
2-Butanone	ND	5.0	ug/L							02/28/14	
2-Chlorotoluene	ND	0.50	ug/L							02/28/14	
2-Hexanone	ND	10	ug/L							02/28/14	
4-Chlorotoluene	ND	0.50	ug/L							02/28/14	
4-Methyl-2-pentanone	ND	5.0	ug/L							02/28/14	
Acetone	ND	10	ug/L							02/28/14	
Benzene	ND	0.50	ug/L							02/28/14	
Bromobenzene	ND	0.50	ug/L							02/28/14	
Bromochloromethane	ND	0.50	ug/L							02/28/14	
Bromodichloromethane	ND	0.50	ug/L							02/28/14	
Bromoform	ND	0.50	ug/L							02/28/14	
Bromomethane	ND	0.50	ug/L							02/28/14	
Carbon Tetrachloride	ND	0.50	ug/L							02/28/14	
Chlorobenzene	ND	0.50	ug/L							02/28/14	
Chloroethane	ND	0.50	ug/L							02/28/14	
Chloroform	ND	0.50	ug/L							02/28/14	
Chloromethane	ND	0.50	ug/L							02/28/14	
cis-1,2-Dichloroethene	ND	0.50	ug/L							02/28/14	
cis-1,3-Dichloropropene	ND	0.50	ug/L							02/28/14	
Dibromochloromethane	ND	0.50	ug/L							02/28/14	
Dibromomethane	ND	0.50	ug/L							02/28/14	
Dichlorodifluoromethane	ND	0.50	ug/L							02/28/14	
Dichloromethane	ND	0.50	ug/L							02/28/14	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							02/28/14	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							02/28/14	
Ethylbenzene	ND	0.50	ug/L							02/28/14	
Hexachlorobutadiene	ND	0.50	ug/L							02/28/14	
Isopropylbenzene	ND	0.50	ug/L							02/28/14	
m,p-Xylenes	ND	0.50	ug/L							02/28/14	
Methyl-t-butyl ether	ND	0.50	ug/L							02/28/14	
Naphthalene	ND	0.50	ug/L							02/28/14	
n-Butylbenzene	ND	0.50	ug/L							02/28/14	
n-Propylbenzene	ND	0.50	ug/L							02/28/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402445

Prepared: 02/28/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402445-BLK1)

o-Xylene	ND	0.50	ug/L							02/28/14	
p-Isopropyltoluene	ND	0.50	ug/L							02/28/14	
sec-Butylbenzene	ND	0.50	ug/L							02/28/14	
Styrene	ND	0.50	ug/L							02/28/14	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							02/28/14	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							02/28/14	
tert-Butylbenzene	ND	0.50	ug/L							02/28/14	
Tetrachloroethene (PCE)	ND	0.50	ug/L							02/28/14	
Toluene	ND	0.50	ug/L							02/28/14	
trans-1,2-Dichloroethene	ND	0.50	ug/L							02/28/14	
trans-1,3-Dichloropropene	ND	0.50	ug/L							02/28/14	
Trichloroethene (TCE)	ND	0.50	ug/L							02/28/14	
Trichlorofluoromethane	ND	5.0	ug/L							02/28/14	
Vinyl Chloride	ND	0.50	ug/L							02/28/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.7			5.0		94	70-130			02/28/14	
Surrogate: Bromofluorobenzene	47			50		94	70-130			02/28/14	

Blank Spike (A402445-BS1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		107	70-130			02/28/14	
1,1,1-Trichloroethane	11	0.50	ug/L	10		107	70-130			02/28/14	
1,1,2,2-Tetrachloroethane	10	0.50	ug/L	10		104	70-130			02/28/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	12	10	ug/L	10		116	70-130			02/28/14	
1,1,2-Trichloroethane	11	0.50	ug/L	10		107	70-130			02/28/14	
1,1-Dichloroethane	11	0.50	ug/L	10		108	70-130			02/28/14	
1,1-Dichloroethene	11	0.50	ug/L	10		108	70-130			02/28/14	
1,1-Dichloropropene	11	0.50	ug/L	10		113	70-130			02/28/14	
1,2,3-Trichlorobenzene	11	0.50	ug/L	10		106	70-130			02/28/14	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		109	70-130			02/28/14	
1,2,4-Trimethylbenzene	11	0.50	ug/L	10		106	70-130			02/28/14	
1,2-Dichlorobenzene	11	0.50	ug/L	10		112	70-130			02/28/14	
1,2-Dichloroethane	10	0.50	ug/L	10		105	70-130			02/28/14	
1,2-Dichloropropane	11	0.50	ug/L	10		108	70-130			02/28/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		108	70-130			02/28/14	
1,3-Dichlorobenzene	10	0.50	ug/L	10		105	70-130			02/28/14	
1,3-Dichloropropane	11	0.50	ug/L	10		107	70-130			02/28/14	
1,4-Dichlorobenzene	11	0.50	ug/L	10		108	70-130			02/28/14	
2,2-Dichloropropane	11	0.50	ug/L	10		107	70-130			02/28/14	
2-Butanone	11	5.0	ug/L	10		106	70-130			02/28/14	
2-Chlorotoluene	11	0.50	ug/L	10		106	70-130			02/28/14	
2-Hexanone	10	10	ug/L	10		104	70-130			02/28/14	
4-Chlorotoluene	11	0.50	ug/L	10		106	70-130			02/28/14	
4-Methyl-2-pentanone	10	5.0	ug/L	10		103	70-130			02/28/14	
Acetone	10	10	ug/L	10		101	70-130			02/28/14	
Benzene	10	0.50	ug/L	10		104	70-130			02/28/14	
Bromobenzene	10	0.50	ug/L	10		105	70-130			02/28/14	
Bromochloromethane	11	0.50	ug/L	10		112	70-130			02/28/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402445

Prepared: 02/28/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A402445-BS1)

Bromodichloromethane	9.6	0.50	ug/L	10		96	70-130			02/28/14	
Bromoform	10	0.50	ug/L	10		103	70-130			02/28/14	
Bromomethane	7.6	0.50	ug/L	10		76	70-130			02/28/14	
Carbon Tetrachloride	11	0.50	ug/L	10		112	70-130			02/28/14	
Chlorobenzene	11	0.50	ug/L	10		107	70-130			02/28/14	
Chloroethane	10	0.50	ug/L	10		103	70-130			02/28/14	
Chloroform	10	0.50	ug/L	10		103	70-130			02/28/14	
Chloromethane	12	0.50	ug/L	10		124	70-130			02/28/14	
cis-1,2-Dichloroethene	11	0.50	ug/L	10		108	70-130			02/28/14	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		107	70-130			02/28/14	
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130			02/28/14	
Dibromomethane	10	0.50	ug/L	10		103	70-130			02/28/14	
Dichlorodifluoromethane	19	0.50	ug/L	10		187	70-130			02/28/14	BS High
Dichloromethane	11	0.50	ug/L	10		108	70-130			02/28/14	
Di-isopropyl ether (DIPE)	11	3.0	ug/L	10		114	70-130			02/28/14	
Ethyl tert-Butyl Ether (ETBE)	11	0.50	ug/L	10		113	70-130			02/28/14	
Ethylbenzene	11	0.50	ug/L	10		106	70-130			02/28/14	
Hexachlorobutadiene	11	0.50	ug/L	10		110	70-130			02/28/14	
Isopropylbenzene	11	0.50	ug/L	10		107	70-130			02/28/14	
m,p-Xylenes	19	0.50	ug/L	20		96	70-130			02/28/14	
Methyl-t-butyl ether	21	0.50	ug/L	20		104	70-130			02/28/14	
Naphthalene	11	0.50	ug/L	10		107	70-130			02/28/14	
n-Butylbenzene	11	0.50	ug/L	10		105	70-130			02/28/14	
n-Propylbenzene	11	0.50	ug/L	10		106	70-130			02/28/14	
o-Xylene	10	0.50	ug/L	10		104	70-130			02/28/14	
p-Isopropyltoluene	11	0.50	ug/L	10		109	70-130			02/28/14	
sec-Butylbenzene	11	0.50	ug/L	10		107	70-130			02/28/14	
Styrene	14	0.50	ug/L	10		138	70-130			02/28/14	BS High
tert-Amyl Methyl Ether (TAME)	12	3.0	ug/L	10		116	70-130			02/28/14	
tert-Butyl alcohol (TBA)	14	2.0	ug/L	10		135	70-130			02/28/14	BS High
tert-Butylbenzene	11	0.50	ug/L	10		106	70-130			02/28/14	
Tetrachloroethene (PCE)	11	0.50	ug/L	10		111	70-130			02/28/14	
Toluene	11	0.50	ug/L	10		109	70-130			02/28/14	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		108	70-130			02/28/14	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		107	70-130			02/28/14	
Trichloroethene (TCE)	11	0.50	ug/L	10		110	70-130			02/28/14	
Trichlorofluoromethane	12	5.0	ug/L	10		122	70-130			02/28/14	
Vinyl Chloride	13	0.50	ug/L	10		127	70-130			02/28/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		99	70-130			02/28/14	
Surrogate: Bromofluorobenzene	49			50		98	70-130			02/28/14	

Blank Spike Dup (A402445-BSD1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		109	70-130	2	30	02/28/14	
1,1,1-Trichloroethane	11	0.50	ug/L	10		108	70-130	1	30	02/28/14	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		108	70-130	4	30	02/28/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	12	10	ug/L	10		118	70-130	2	30	02/28/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402445

Prepared: 02/28/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402445-BSD1)

1,1,2-Trichloroethane	11	0.50	ug/L	10		111	70-130	3	30	02/28/14	
1,1-Dichloroethane	11	0.50	ug/L	10		111	70-130	2	30	02/28/14	
1,1-Dichloroethene	11	0.50	ug/L	10		109	70-130	1	30	02/28/14	
1,1-Dichloropropene	12	0.50	ug/L	10		116	70-130	3	30	02/28/14	
1,2,3-Trichlorobenzene	11	0.50	ug/L	10		108	70-130	1	30	02/28/14	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		110	70-130	1	30	02/28/14	
1,2,4-Trimethylbenzene	11	0.50	ug/L	10		108	70-130	2	30	02/28/14	
1,2-Dichlorobenzene	11	0.50	ug/L	10		112	70-130	1	30	02/28/14	
1,2-Dichloroethane	10	0.50	ug/L	10		103	70-130	2	30	02/28/14	
1,2-Dichloropropane	11	0.50	ug/L	10		111	70-130	3	30	02/28/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		111	70-130	3	30	02/28/14	
1,3-Dichlorobenzene	10	0.50	ug/L	10		103	70-130	1	30	02/28/14	
1,3-Dichloropropane	11	0.50	ug/L	10		110	70-130	2	30	02/28/14	
1,4-Dichlorobenzene	11	0.50	ug/L	10		109	70-130	1	30	02/28/14	
2,2-Dichloropropane	11	0.50	ug/L	10		108	70-130	2	30	02/28/14	
2-Butanone	11	5.0	ug/L	10		114	70-130	7	30	02/28/14	
2-Chlorotoluene	11	0.50	ug/L	10		107	70-130	1	30	02/28/14	
2-Hexanone	11	10	ug/L	10		110	70-130	6	30	02/28/14	
4-Chlorotoluene	11	0.50	ug/L	10		108	70-130	2	30	02/28/14	
4-Methyl-2-pentanone	11	5.0	ug/L	10		110	70-130	6	30	02/28/14	
Acetone	11	10	ug/L	10		106	70-130	5	30	02/28/14	
Benzene	10	0.50	ug/L	10		101	70-130	3	30	02/28/14	
Bromobenzene	11	0.50	ug/L	10		107	70-130	2	30	02/28/14	
Bromochloromethane	11	0.50	ug/L	10		111	70-130	0	30	02/28/14	
Bromodichloromethane	9.7	0.50	ug/L	10		97	70-130	1	30	02/28/14	
Bromoform	11	0.50	ug/L	10		112	70-130	9	30	02/28/14	
Bromomethane	8.5	0.50	ug/L	10		85	70-130	11	30	02/28/14	
Carbon Tetrachloride	12	0.50	ug/L	10		115	70-130	3	30	02/28/14	
Chlorobenzene	11	0.50	ug/L	10		108	70-130	1	30	02/28/14	
Chloroethane	11	0.50	ug/L	10		106	70-130	3	30	02/28/14	
Chloroform	10	0.50	ug/L	10		105	70-130	2	30	02/28/14	
Chloromethane	10	0.50	ug/L	10		103	70-130	18	30	02/28/14	
cis-1,2-Dichloroethene	11	0.50	ug/L	10		111	70-130	2	30	02/28/14	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		109	70-130	2	30	02/28/14	
Dibromochloromethane	10	0.50	ug/L	10		101	70-130	3	30	02/28/14	
Dibromomethane	11	0.50	ug/L	10		113	70-130	9	30	02/28/14	
Dichlorodifluoromethane	17	0.50	ug/L	10		172	70-130	8	30	02/28/14	BS High
Dichloromethane	11	0.50	ug/L	10		109	70-130	1	30	02/28/14	
Di-isopropyl ether (DIPE)	13	3.0	ug/L	10		134	70-130	16	30	02/28/14	BS High
Ethyl tert-Butyl Ether (ETBE)	14	0.50	ug/L	10		135	70-130	18	30	02/28/14	BS High
Ethylbenzene	11	0.50	ug/L	10		107	70-130	2	30	02/28/14	
Hexachlorobutadiene	11	0.50	ug/L	10		112	70-130	1	30	02/28/14	
Isopropylbenzene	11	0.50	ug/L	10		109	70-130	1	30	02/28/14	
m,p-Xylenes	20	0.50	ug/L	20		98	70-130	2	30	02/28/14	
Methyl-t-butyl ether	23	0.50	ug/L	20		116	70-130	11	30	02/28/14	
Naphthalene	11	0.50	ug/L	10		111	70-130	4	30	02/28/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402445

Prepared: 02/28/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402445-BSD1)

n-Butylbenzene	11	0.50	ug/L	10		106	70-130	1	30	02/28/14	
n-Propylbenzene	11	0.50	ug/L	10		108	70-130	2	30	02/28/14	
o-Xylene	11	0.50	ug/L	10		107	70-130	2	30	02/28/14	
p-Isopropyltoluene	11	0.50	ug/L	10		110	70-130	1	30	02/28/14	
sec-Butylbenzene	11	0.50	ug/L	10		108	70-130	1	30	02/28/14	
Styrene	14	0.50	ug/L	10		141	70-130	2	30	02/28/14	BS High
tert-Amyl Methyl Ether (TAME)	14	3.0	ug/L	10		136	70-130	16	30	02/28/14	BS High
tert-Butyl alcohol (TBA)	22	2.0	ug/L	10		219	70-130	48	30	02/28/14	BS, High BS6.0
tert-Butylbenzene	11	0.50	ug/L	10		108	70-130	2	30	02/28/14	
Tetrachloroethene (PCE)	11	0.50	ug/L	10		113	70-130	2	30	02/28/14	
Toluene	11	0.50	ug/L	10		112	70-130	2	30	02/28/14	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		110	70-130	2	30	02/28/14	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		109	70-130	2	30	02/28/14	
Trichloroethene (TCE)	11	0.50	ug/L	10		113	70-130	3	30	02/28/14	
Trichlorofluoromethane	12	5.0	ug/L	10		124	70-130	2	30	02/28/14	
Vinyl Chloride	12	0.50	ug/L	10		118	70-130	8	30	02/28/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		100	70-130			02/28/14	
Surrogate: Bromofluorobenzene	49			50		98	70-130			02/28/14	

EPA 525.2 - Quality Control

Batch: A402556

Prepared: 03/01/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank (A402556-BLK1)

Alachlor	ND	1.0	ug/L							03/03/14	
Atrazine	ND	0.50	ug/L							03/03/14	
Benzo(a)pyrene	ND	0.10	ug/L							03/03/14	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							03/03/14	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							03/03/14	
Bromacil	ND	10	ug/L							03/03/14	
Butachlor	ND	0.38	ug/L							03/03/14	
Diazinon	ND	0.25	ug/L							03/03/14	
Dimethoate	ND	10	ug/L							03/03/14	
Metolachlor	ND	0.50	ug/L							03/03/14	
Metribuzin	ND	0.50	ug/L							03/03/14	
Molinate	ND	2.0	ug/L							03/03/14	
Propachlor	ND	0.50	ug/L							03/03/14	
Simazine	ND	1.0	ug/L							03/03/14	
Thiobencarb	ND	1.0	ug/L							03/03/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.9			5.0		118	70-130			03/03/14	

Blank Spike (A402556-BS1)

Alachlor	0.59	1.0	ug/L	0.51		115	70-130			03/03/14	
Atrazine	0.57	0.50	ug/L	0.51		111	70-130			03/03/14	
Benzo(a)pyrene	0.098	0.10	ug/L	0.10		95	70-130			03/03/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402556

Prepared: 03/01/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A402556-BS1)

Bis(2-ethylhexyl) adipate	3.8	3.0	ug/L	3.1		124	70-130			03/03/14	
Bis(2-ethylhexyl) phthalate	4.2	3.0	ug/L	3.1		137	70-130			03/03/14	BS High
Bromacil	2.6	10	ug/L	2.1		128	70-130			03/03/14	
Butachlor	1.4	0.38	ug/L	1.3		111	70-130			03/03/14	
Diazinon	0.040	0.25	ug/L	0.051		78	70-130			03/03/14	
Dimethoate	0.51	10	ug/L	0.51		99	70-130			03/03/14	
Metolachlor	3.3	0.50	ug/L	2.6		128	70-130			03/03/14	
Metribuzin	3.1	0.50	ug/L	2.6		122	70-130			03/03/14	
Molinate	2.9	2.0	ug/L	2.6		112	70-130			03/03/14	
Propachlor	2.8	0.50	ug/L	2.6		108	70-130			03/03/14	
Simazine	0.40	1.0	ug/L	0.36		110	70-130			03/03/14	
Thiobencarb	0.58	1.0	ug/L	0.51		113	70-130			03/03/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	6.1			5.1		118	70-130			03/03/14	

Blank Spike Dup (A402556-BSD1)

Alachlor	0.60	1.0	ug/L	0.51		117	70-130	1	30	03/03/14	
Atrazine	0.59	0.50	ug/L	0.51		114	70-130	2	30	03/03/14	
Benzo(a)pyrene	0.095	0.10	ug/L	0.10		93	70-130	3	30	03/03/14	
Bis(2-ethylhexyl) adipate	3.9	3.0	ug/L	3.1		127	70-130	2	30	03/03/14	
Bis(2-ethylhexyl) phthalate	4.4	3.0	ug/L	3.1		144	70-130	4	30	03/03/14	BS High
Bromacil	2.7	10	ug/L	2.1		131	70-130	2	30	03/03/14	BS High
Butachlor	1.4	0.38	ug/L	1.3		107	70-130	4	30	03/03/14	
Diazinon	0.052	0.25	ug/L	0.051		102	70-130	26	30	03/03/14	
Dimethoate	0.45	10	ug/L	0.51		88	70-130	12	30	03/03/14	
Metolachlor	3.3	0.50	ug/L	2.6		129	70-130	0	30	03/03/14	
Metribuzin	3.0	0.50	ug/L	2.6		118	70-130	3	30	03/03/14	
Molinate	2.8	2.0	ug/L	2.6		109	70-130	3	30	03/03/14	
Propachlor	2.7	0.50	ug/L	2.6		107	70-130	1	30	03/03/14	
Simazine	0.42	1.0	ug/L	0.36		117	70-130	5	30	03/03/14	
Thiobencarb	0.58	1.0	ug/L	0.51		114	70-130	0	30	03/03/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.7			5.1		111	70-130			03/03/14	

Matrix Spike (A402556-MS1), Source: A4B2037-04

Alachlor	0.57	1.0	ug/L	0.49	ND	116	70-130			03/03/14	
Atrazine	0.56	0.50	ug/L	0.49	ND	113	70-130			03/03/14	
Benzo(a)pyrene	0.11	0.10	ug/L	0.099	ND	110	70-130			03/03/14	
Bis(2-ethylhexyl) adipate	3.7	3.0	ug/L	3.0	ND	126	70-130			03/03/14	
Bis(2-ethylhexyl) phthalate	4.3	3.0	ug/L	3.0	ND	120	70-130			03/03/14	
Bromacil	2.6	10	ug/L	2.0	ND	131	70-130			03/03/14	BS High
Butachlor	1.4	0.38	ug/L	1.2	ND	111	70-130			03/03/14	
Diazinon	0.048	0.25	ug/L	0.049	ND	98	70-130			03/03/14	
Dimethoate	0.49	10	ug/L	0.49	ND	100	70-130			03/03/14	
Metolachlor	3.1	0.50	ug/L	2.5	ND	127	70-130			03/03/14	
Metribuzin	2.9	0.50	ug/L	2.5	ND	116	70-130			03/03/14	
Molinate	2.6	2.0	ug/L	2.5	ND	104	70-130			03/03/14	
Propachlor	2.6	0.50	ug/L	2.5	ND	107	70-130			03/03/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A402556

Prepared: 03/01/2014

Prep Method: EPA 525.2

Analyst: KHH

Matrix Spike (A402556-MS1), Source: A4B2037-04

Simazine	0.39	1.0	ug/L	0.35	ND	113	70-130			03/03/14	
Thiobencarb	0.54	1.0	ug/L	0.49	ND	110	70-130			03/03/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.4			4.9		109	70-130			03/03/14	

EPA 531.1 - Quality Control

Batch: A402440

Prepared: 02/26/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank (A402440-BLK1)

3-Hydroxycarbofuran	ND	2.0	ug/L							02/26/14	
Aldicarb	ND	2.0	ug/L							02/26/14	
Aldicarb Sulfone	ND	2.0	ug/L							02/26/14	
Aldicarb Sulfoxide	ND	2.0	ug/L							02/26/14	
Carbaryl	ND	2.0	ug/L							02/26/14	
Carbofuran	ND	2.0	ug/L							02/26/14	
Methomyl	ND	2.0	ug/L							02/26/14	
Oxamyl	ND	2.0	ug/L							02/26/14	

Blank Spike (A402440-BS1)

3-Hydroxycarbofuran	3.8	2.0	ug/L	4.0		95	80-120			02/26/14	
Aldicarb	4.0	2.0	ug/L	4.0		100	80-120			02/26/14	
Aldicarb Sulfone	4.0	2.0	ug/L	4.0		99	80-120			02/26/14	
Aldicarb Sulfoxide	4.0	2.0	ug/L	4.0		100	80-120			02/26/14	
Carbaryl	3.8	2.0	ug/L	4.0		96	80-120			02/26/14	
Carbofuran	3.9	2.0	ug/L	4.0		98	80-120			02/26/14	
Methomyl	4.1	2.0	ug/L	4.0		103	80-120			02/26/14	
Oxamyl	3.9	2.0	ug/L	4.0		98	80-120			02/26/14	

Blank Spike Dup (A402440-BSD1)

3-Hydroxycarbofuran	4.0	2.0	ug/L	4.0		101	80-120	6	20	02/27/14	
Aldicarb	4.3	2.0	ug/L	4.0		107	80-120	7	20	02/27/14	
Aldicarb Sulfone	4.2	2.0	ug/L	4.0		104	80-120	5	20	02/27/14	
Aldicarb Sulfoxide	4.2	2.0	ug/L	4.0		105	80-120	5	20	02/27/14	
Carbaryl	4.2	2.0	ug/L	4.0		104	80-120	8	20	02/27/14	
Carbofuran	4.1	2.0	ug/L	4.0		104	80-120	5	20	02/27/14	
Methomyl	4.3	2.0	ug/L	4.0		108	80-120	5	20	02/27/14	
Oxamyl	4.1	2.0	ug/L	4.0		103	80-120	4	20	02/27/14	

Matrix Spike (A402440-MS1), Source: A4B1898-01

3-Hydroxycarbofuran	4.2	2.0	ug/L	4.0	ND	106	65-135			02/27/14	
Aldicarb	4.4	2.0	ug/L	4.0	ND	103	65-135			02/27/14	
Aldicarb Sulfone	4.4	2.0	ug/L	4.0	ND	107	65-135			02/27/14	
Aldicarb Sulfoxide	4.3	2.0	ug/L	4.0	ND	108	65-135			02/27/14	
Carbaryl	4.3	2.0	ug/L	4.0	ND	107	65-135			02/27/14	
Carbofuran	4.2	2.0	ug/L	4.0	ND	105	65-135			02/27/14	
Methomyl	4.5	2.0	ug/L	4.0	ND	111	65-135			02/27/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A402440

Prepared: 02/26/2014

Prep Method: EPA 531.1

Analyst: AAR

Matrix Spike (A402440-MS1), Source: A4B1898-01

Oxamyl	4.3	2.0	ug/L	4.0	ND	108	65-135			02/27/14	
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EPA 547 - Quality Control

Batch: A402555

Prepared: 03/01/2014

Prep Method: EPA 547

Analyst: RJB

Blank (A402555-BLK1)

Glyphosate	ND	25	ug/L							03/01/14	
Surrogate: AMPA	95			100		95	70-130			03/01/14	

Blank Spike (A402555-BS1)

Glyphosate	100	25	ug/L	100		103	70-130			03/01/14	
Surrogate: AMPA	100			100		102	70-130			03/01/14	

Blank Spike Dup (A402555-BSD1)

Glyphosate	120	25	ug/L	100		116	70-130	12	30	03/01/14	
Surrogate: AMPA	97			100		97	70-130			03/01/14	

Matrix Spike (A402555-MS1), Source: A4B1780-01

Glyphosate	97	25	ug/L	100	ND	95	70-130			03/01/14	
Surrogate: AMPA	89			100		87	70-130			03/01/14	

Matrix Spike Dup (A402555-MSD1), Source: A4B1780-01

Glyphosate	93	25	ug/L	100	ND	91	70-130	4	30	03/01/14	
Surrogate: AMPA	86			100		84	70-130			03/01/14	

EPA 548.1 - Quality Control

Batch: A402503

Prepared: 02/27/2014

Prep Method: EPA 548.1

Analyst: KHH

Blank (A402503-BLK1)

Endothall	ND	45	ug/L							02/28/14	
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Blank Spike (A402503-BS1)

Endothall	17	45	ug/L	20		84	60-111			02/28/14	
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Blank Spike Dup (A402503-BSD1)

Endothall	15	45	ug/L	20		77	60-111	10	46	02/28/14	
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Matrix Spike (A402503-MS1), Source: A4B1920-01

Endothall	4.4	45	ug/L	20	ND	22	10-122			02/28/14	
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EPA 549.2 - Quality Control

Batch: A402584

Prepared: 03/03/2014

Prep Method: EPA 549.2

Analyst: PYA

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 549.2 - Quality Control

Batch: A402584

Prepared: 03/03/2014

Prep Method: EPA 549.2

Analyst: PYA

Blank (A402584-BLK1)

Diquat ND 4.0 ug/L 03/03/14

Blank Spike (A402584-BS1)

Diquat 3.1 4.0 ug/L 4.0 78 70-130 03/03/14

Blank Spike Dup (A402584-BSD1)

Diquat 3.3 4.0 ug/L 4.0 83 70-130 6 30 03/03/14

Matrix Spike (A402584-MS1), Source: A4B1898-01

Diquat 2.1 4.0 ug/L 4.0 ND 46 70-130 03/03/14 MS1.0 **Low**

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of Oregon - NELAP	4021	State of Washington	C997
State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA

BSK is not accredited under the NELAC program for the following parameters:

A4B1898



Monterey Bay Analytical

Monte6227



02262014

Turnaround: Standard

Due Date: 3/5/2014

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

A4B1898
 Mont6227
 02/26/2014
 5



TEMP: 3.8

ANALYSIS REQUESTED

ANALYSIS REQUESTED

* Required Fields

Client/Company Name *		Report Attention *		Phone # *(831)-357-6227		FAX # *(831)-641-0734	
Monterey Bay Analytical		David Holland		4MBAS@sbccglobal.net			
Address *		City *		State *		Zip *	
4 Justin Ct.		Monterey		CA		93940	
Project Information:		FO #		Quote #			
Cal Am				464			
How would you like your completed results sent?		<input checked="" type="checkbox"/> E-Mail		<input type="checkbox"/> Fax		<input type="checkbox"/> EDD	
		<input type="checkbox"/> Mail Only		Result Request **		Surcharge	
Sampler Name Printed / Signature		QC Request		<input checked="" type="checkbox"/> STD		<input type="checkbox"/> Level II	
Nathan Reynolds				<input type="checkbox"/> STD		<input checked="" type="checkbox"/> 5 Day **	
Matrix Types:		RSW = Raw Surface Water		CFW = Chlorinated Finished Water		CWW = Chlorinated Waste Water	
		RGW = Raw Ground Water		FW = Finished Water		WVW = Waste Water	
		BW = Bottled Water		DW = Drinking Water		SO = Solid	
Sample #		Sample Date		Sample Description / Location *		Matrix *	
225		09-10		CX-BWQ Zone #6 (S1 61 ft bgs)		RGW	
				5 day TAT please *			
				Conductivity 35,952 uS/cm			
Relinquished by: (Signature and Printed Name)		Company		Date		Time	
David Holland		MBAS		2/26/14		1600	
Relinquished by: (Signature and Printed Name)		Company		Date		Time	
Received for: (Signature and Printed Name)		Company		Date		Time	
Shipping Method:		CAO UPS GSO WALK-IN SVC		FED EX OTHER		Cooling Method:	
						WET BLUE NONE	
Parking Material:		Check/Carb/Card		PIA #		Init	

Notice: Payment for services rendered is noted herein and due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-charging charges and interest calculated at 1 1/2 % per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collection, including attorney's fees incurred prior to or in litigation, whether concluded by judgment, settlement, compromise or otherwise. The person signing for the Client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, either type or quantity, will be noted and agreed upon this Chain of Custody. The turn around time for any samples received after 3:00 pm will begin the next business day.

Sample Integrity

BSK Bottles: Yes No Page 1 of 1



COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$			Were correct containers and preservatives received for the tests requested?			
		Yes	No	NA	Yes	No	NA
Bottles Received	If samples were taken today, is there evidence that chilling has begun?			Were there bubbles in the VOA vials? (Volatiles Only)			
	Yes	No	NA	Yes	No	NA	
	Did all bottles arrive unbroken and intact?			Was a sufficient amount of sample received?			
	Yes	No	NA	Yes	No	NA	
	Did all bottle labels agree with COC?			Do samples have a hold time <72 hours?			
	Yes	No	NA	Yes	No	NA	
Bottles Received/Chlorine checks are either N/A or are performed in the lab	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?			Was PM notified of discrepancies?			
	Yes	No	NA	Yes	No	NA	
	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)			Checks	Passed?		
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$			—	—		
	None (P) ^{White Cap}			—	—		
	Cr6 Buffer (P) ^{Blue Cap}			pH 9-9.5	Y N		
	HNO ₃ (P) ^{Red Cap}			—	—		
	H ₂ SO ₄ (P) ^{Yellow Cap}			pH ≤ 2	Y N		
	NaOH (P) ^{Green Cap}			Cl, pH ≥ 12	Y N		
	NaOH + ZnAc (P)			pH ≥ 9	Y N		
	Dissolved Oxygen 300ml (g)			—	—		
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270			—	—		
	H ₂ SO ₄ (AG) ^{Yellow Label} O&G, Diesel			—	—		
	Na ₂ S ₂ O ₃ 1 Liter (Brown P) 549			—	—		
	Na ₂ S ₂ O ₃ (AG) ^{Blue Label} 547, 515, 525, 548			—	—		
	Na ₂ S ₂ O ₃ (AG) ^{Blue Label} THMs 524.2 or 524.3			—	—		
	Na ₂ S ₂ O ₃ (CG) ^{Blue Label} 504, 505			—	—		
	Na ₂ S ₂ O ₃ + MCAA (CG) ^{Orange Label} 531			pH = 3	Y N		
	NH ₄ Cl (AG) ^{Purple Label} 552			—	—		
	EDA (AG) ^{Brown Label} DBPs			—	—		
	Ascorbic + Maleic (AG) ^{Lt Green Label} 524.3			—	—		
	HCL (CG) 524.2, BTEX, Gas, MTBE 8260/624			—	—		
	Buffer pH 4 (CG)			—	—		
	None (CG)			—	—		
	H ₃ PO ₄ (CG) ^{Salmon Label}			—	—		
Other:							
Asbestos 1Liter Plastic w/ Foil			—	—			
Low Level Hg / Metals Double Baggie			—	—			
Bottled Water			—	—			
Clear Glass Jar: 250 / 500 / 1 Liter			—	—			
Soil Tube Brass / Steel / Plastic			—	—			
Tedlar Bag / Plastic Bag			—	—			
Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials	
	S P			S P			
Comments	S P			S P			

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McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1402896

Report Created for: Monterey Bay Analytical
4 Justin Court, Suite D
Monterey, CA 93940

Project Contact: David Holland
Project P.O.:
Project Name: CalAm

Project Received: 02/26/2014

Analytical Report reviewed & approved for release on 02/28/2014 by:

Question about
your data?

[Click here to email
McC Campbell](#)

Angela Rydelius,
Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.





Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical
Project: CalAm
WorkOrder: 1402896

Glossary

Abbreviation

95% Interval	95% Confident Interval
DF	Dilution Factor
DUP	Duplicate
EDL	Estimated Detection Limit
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not detected at or above the indicated MDL or RL
NR	Matrix interferences, or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix; or sample diluted due to high matrix or analyte content.
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
TEQ	Toxicity Equivalence

Analytical

Qualifier

a1 sample diluted due to matrix interference



McC Campbell Analytical, Inc.
 "When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #2 (237-247 ft bgs) (dissol	1402896-002A	Water/DISS.	02/19/2014 16:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	210	100	20	02/27/2014 19:31
Strontium	11,000	400	20	02/27/2014 19:31

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #3 (182-192 ft bgs) (dissol	1402896-004A	Water/DISS.	02/21/2014 13:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	ND	100	20	02/27/2014 14:48
Strontium	12,000	400	20	02/27/2014 14:48

Analytical Comments: a1

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #4 (134-144 ft bgs) (dissol	1402896-006A	Water/DISS.	02/22/2014 14:45	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	120	100	20	02/27/2014 19:37
Strontium	9400	400	20	02/27/2014 19:37

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #5 (84-94 ft bgs) (dissolve	1402896-008A	Water/DISS.	02/23/2014 16:20	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Barium	ND	100	20	02/27/2014 19:43
Strontium	10,000	400	20	02/27/2014 19:43

Analytical Comments: a1

(Cont.)



McC Campbell Analytical, Inc.
 "When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #6 (51-61 ft bgs) (dissolve	1402896-010A	Water/DISS.	02/25/2014 09:10	ICP-MS2	87508
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Barium	100		100	20	02/27/2014 19:48
Strontium	9500		400	20	02/27/2014 19:48



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http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #2 (237-247 ft bgs)	1402896-001A	Water/TOTAL	02/19/2014 16:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	1000	20	02/27/2014 15:23
Arsenic	ND	10	20	02/27/2014 15:23
Copper	ND	10	20	02/27/2014 15:23
Lithium	120	100	20	02/27/2014 15:23
Zinc	ND	100	20	02/27/2014 15:23
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	104	70-130	02/27/2014 15:23	

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #3 (182-192 ft bgs)	1402896-003A	Water/TOTAL	02/21/2014 13:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	1000	20	02/27/2014 15:28
Arsenic	ND	10	20	02/27/2014 15:28
Copper	ND	10	20	02/27/2014 15:28
Lithium	140	100	20	02/27/2014 15:28
Zinc	ND	100	20	02/27/2014 15:28
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	111	70-130	02/27/2014 15:28	

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #4 (134-144 ft bgs)	1402896-005A	Water/TOTAL	02/22/2014 14:45	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	1000	20	02/27/2014 15:34
Arsenic	ND	10	20	02/27/2014 15:34
Copper	ND	10	20	02/27/2014 15:34
Lithium	120	100	20	02/27/2014 15:34
Zinc	ND	100	20	02/27/2014 15:34
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	104	70-130	02/27/2014 15:34	

(Cont.)



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 "When Quality Counts"

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 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
 http://www.mcccampbell.com / E-mail: main@mcccampbell.com

Analytical Report

Client: Monterey Bay Analytical
Project: CalAm
Date Received: 2/26/14 11:35
Date Prepared: 2/26/14

WorkOrder: 1402896
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #5 (84-94 ft bgs)	1402896-007A	Water/TOTAL	02/23/2014 16:20	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	1000	20	02/27/2014 15:40
Arsenic	ND	10	20	02/27/2014 15:40
Copper	ND	10	20	02/27/2014 15:40
Lithium	170	100	20	02/27/2014 15:40
Zinc	ND	100	20	02/27/2014 15:40
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	109	70-130	02/27/2014 15:40	

Client ID	Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
CX-BIWQ Zone #6 (51-61 ft bgs)	1402896-009A	Water/TOTAL	02/25/2014 09:10	ICP-MS2	87508

Analytes	Result	RL	DF	Date Analyzed
Aluminum	ND	1000	20	02/27/2014 15:45
Arsenic	ND	10	20	02/27/2014 15:45
Copper	ND	10	20	02/27/2014 15:45
Lithium	140	100	20	02/27/2014 15:45
Zinc	ND	100	20	02/27/2014 15:45
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	Analytical Comments: a1	
Tb 350.917	110	70-130	02/27/2014 15:45	



Quality Control Report

Client: Monterey Bay Analytical
Date Prepared: 2/26/14
Date Analyzed: 2/27/14
Instrument: ICP-MS1
Matrix: Water
Project: CalAm

WorkOrder: 1402896
BatchID: 87508
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L
Sample ID: MB/LCS-87508
 1402903-004CMS/MSD

QC Summary Report for E200.8

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Aluminum	ND	475.4	50	500	-	95.1	85-115
Arsenic	ND	46.74	0.50	50	-	93.5	85-115
Barium	ND	451.9	5.0	500	-	90.4	85-115
Copper	ND	48.31	0.50	50	-	96.6	85-115
Lithium	ND	47.95	5.0	50	-	95.9	85-115
Strontium	ND	496	20	500	-	99.2	85-115
Zinc	ND	489.9	5.0	500	-	98	85-115

Surrogate Recovery

Tb 350.917	695.7	710.9		750	93	95	70-130
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Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Aluminum	1373	1438	500	863.6	102	115	70-130	4.62	20
Arsenic	47.91	48.87	50	0.84	94.1	96.1	70-130	1.98	20
Barium	473.2	485.6	500	18	91	93.5	70-130	2.59	20
Copper	60.61	62.62	50	13.01	95.2	99.2	70-130	3.26	20
Lithium	49.57	51.07	50	ND	99.1	102	70-130	2.98	20
Strontium	532.9	553	500	36	99.4	103	70-130	3.70	20
Zinc	632.5	641.6	500	118.4	103	105	70-130	1.43	20

Surrogate Recovery

Tb 350.917	712.5	731	750		95	97	70-130	2.56	20
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McC Campbell Analytical, Inc.

1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262



CHAIN-OF-CUSTODY RECORD

WorkOrder: 1402896

ClientCode: MBAS

WaterTrax WriteOn EDF Excel EQuIS Email HardCopy ThirdParty J-flag

Report to:

David Holland
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940
 831-375-6227 FAX: 831-641-0734

Email: 4mbas@sbcglobal.net
 cc:
 PO:
 ProjectNo: CalAm

Bill to:

Accounts Payable
 Monterey Bay Analytical
 4 Justin Court, Suite D
 Monterey, CA 93940

Requested TAT:

3 days

Date Received: 02/26/2014

Date Printed: 02/26/2014

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1402896-001	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	2/19/2014 16:10	<input type="checkbox"/>		A											
1402896-002	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	2/19/2014 16:10	<input type="checkbox"/>	A												
1402896-003	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	2/21/2014 13:10	<input type="checkbox"/>		A											
1402896-004	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	2/21/2014 13:10	<input type="checkbox"/>	A												
1402896-005	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	2/22/2014 14:45	<input type="checkbox"/>		A											
1402896-006	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	2/22/2014 14:45	<input type="checkbox"/>	A												
1402896-007	CX-BIWQ Zone #5 (84-94 ft bgs)	Water	2/23/2014 16:20	<input type="checkbox"/>		A											
1402896-008	CX-BIWQ Zone #5 (84-94 ft bgs) (dissolved)	Water	2/23/2014 16:20	<input type="checkbox"/>	A												
1402896-009	CX-BIWQ Zone #6 (51-61 ft bgs)	Water	2/25/2014 9:10	<input type="checkbox"/>		A											
1402896-010	CX-BIWQ Zone #6 (51-61 ft bgs) (dissolved)	Water	2/25/2014 9:10	<input type="checkbox"/>	A												

Test Legend:

1	METALSMS_DISS	2	METALSMS_W	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Jena Alfaro

Comments: Needs analysts initials for all reports per D.H. 4/5/13

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



WORK ORDER SUMMARY

Client Name: MONTEREY BAY ANALYTICAL

QC Level: LEVEL 2

Work Order: 1402896

Project: CalAm

Client Contact: David Holland

Date Received: 2/26/2014

Comments: Needs analysts initials for all reports per D.H. 4/5/13

Contact's Email: 4mbas@sbcglobal.net

WaterTrax WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Lab ID	Client ID	Matrix	Test Name	Number of Containers	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1402896-001A	CX-BIWQ Zone #2 (237-247 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/19/2014 16:10	3 days	None	<input type="checkbox"/>	
1402896-002A	CX-BIWQ Zone #2 (237-247 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/19/2014 16:10	3 days	None	<input type="checkbox"/>	
1402896-003A	CX-BIWQ Zone #3 (182-192 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/21/2014 13:10	3 days	None	<input type="checkbox"/>	
1402896-004A	CX-BIWQ Zone #3 (182-192 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/21/2014 13:10	3 days	None	<input type="checkbox"/>	
1402896-005A	CX-BIWQ Zone #4 (134-144 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/22/2014 14:45	3 days	None	<input type="checkbox"/>	
1402896-006A	CX-BIWQ Zone #4 (134-144 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/22/2014 14:45	3 days	None	<input type="checkbox"/>	
1402896-007A	CX-BIWQ Zone #5 (84-94 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/23/2014 16:20	3 days	None	<input type="checkbox"/>	
1402896-008A	CX-BIWQ Zone #5 (84-94 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/23/2014 16:20	3 days	None	<input type="checkbox"/>	
1402896-009A	CX-BIWQ Zone #6 (51-61 ft bgs)	Water	E200.8 (Metals) <Aluminum, Arsenic, Copper, Lithium, Zinc>	1	125mL HDPE w/ HNO3	<input type="checkbox"/>	2/25/2014 9:10	3 days	None	<input type="checkbox"/>	
1402896-010A	CX-BIWQ Zone #6 (51-61 ft bgs) (dissolved)	Water	E200.8 (Metals) (Dissolved) <Barium, Strontium>	1	250mL HDPE w/ HNO3	<input type="checkbox"/>	2/25/2014 9:10	3 days	None	<input type="checkbox"/>	

*** NOTE: STLC and TCLP extractions require 48 hrs to complete; therefore, all TATs begin after the extraction is completed (i.e., 24hr TAT yields results in 72 hrs from sample submission).**

Bottle Legend:

125mL HDPE w/ HNO3 = 125mL HDPE Bottle w/ Nitric Acid

250mL HDPE w/ HNO3 = 250mL HDPE Bottle w/ HNO3

1402896

RUSH

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

- GeoTracker EDF
 PDF
 Excel
 Write On (DW)
- RUSH
 24 HR
 48 HR
 72 HR
 5 DAY

Report To: David Holland Bill To:

Company: Monterey Bay Analytical Services

4 Justin Ct. Suite D

Monterey, Ca 93940 E-Mail: 4mbas@sbcglobal.net

Tele: (831) 375 - 6227 Fax: (831) 641-0734

Project #: Project Name: CalAm

Project Location:

Sampler Signature: Nathan Reynolds

Analysis Request

Other

Filter Samples for Metals analysis: Yes / No

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED				Al, As, Cu, Li, Zn	Ba, Sr	Comments	
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other				
	CX-BIWQ Zone #2 (237-247 ft bgs)	2/19/14	16:10	1	p	X					X	X				X		11965
	CX-BIWQ Zone #2 (237-247 ft bgs) (dissolved)	2/19/14	16:10	1	p	X					X	X				X		11965 (dissolved)
	CX-BIWQ Zone #3 (182-192 ft bgs)	2/21/14	13:10	1	p	X					X	X				X		12015
	CX-BIWQ Zone #3 (182-192 ft bgs) (dissolved)	2/21/14	13:10	1	p	X					X	X				X		12015 (dissolved)
	CX-BIWQ Zone #4 (134-144 ft bgs)	2/22/14	14:45	1	p	X					X	X				X		12029
	CX-BIWQ Zone #4 (134-144 ft bgs) (dissolved)	2/22/14	14:45	1	p	X					X	X				X		12029 (dissolved)
	CX-BIWQ Zone #5 (84-94 ft bgs)	2/23/14	16:20	1	P	X					X	X				X		12030
	CX-BIWQ Zone #5 (84-94 ft bgs) (dissolved)	2/23/14	16:20	1	P	X					X	X				X		12030 (dissolved)
	CX-BIWQ Zone #6 (51-61 ft bgs)	2/25/14	09:10	1	p	X					X	X				X		12148
	CX-BIWQ Zone #6 (51-61 ft bgs) (Dissolved)	2/25/14	09:10	1	p	X					X	X				X		12148 (dissolved)

REC'D SEALED & INTACT VIA *UPS Airfreight*

Relinquished By: David Holland *[Signature]* Date: 2/25/14 Time: 1200

Received By: *[Signature]* Date: 2/26/14 Time: 915

G-349

COMMENTS: The sample conductivity ranges from 25,000 μ S/cm to 40,000 μ S/cm



Sample Receipt Checklist

Client Name: **Monterey Bay Analytical** Date and Time Received: **2/26/2014 11:35:12 AM**
 Project Name: **CalAm** LogIn Reviewed by: **Jena Alfaro**
 WorkOrder N°: **1402896** Matrix: Water Carrier: UPS

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: NA
 Water - VOA vials have zero headspace / no bubbles? Yes No NA
 Sample labels checked for correct preservation? Yes No
 Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

* NOTE: If the "No" box is checked, see comments below.

 Comments:

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

pH QC Summary (SM 4500 H+)

Date Analyzed: 2/25/2014

	Value (pH Units)	Result (pH Units)	% Rec	Acceptance Criteria %Rec
IPC	6.86	6.86	100.0	95-105

Sample ID	Sample (pH Units)	Sample Dup (pH Units)	% RPD	Acceptance Criteria % RPD
AB12148	7.3	7.3	0.0	10
AB12177	7.4	7.4	0.0	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
 http://www.MBASinc.com

Kjehldahl Nitrogen QC Summary (SM 4500-NH3)

Date: 2/25/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	5.0	4.820	96.4	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB11639	29.800	5.000	34.800	35.200	100	108	1.1	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Turbidity QC Summary (EPA 180.1)

Date Analyzed: 2/25/2014

	Value (NTU)	Result (NTU)	% Rec	Acceptance Criteria %Rec
IPC	1.00	1.03	103.0	95-105

Sample ID	Sample (NTU)	Sample Dup (NTU)	% RPD	Acceptance Criteria % RPD
AB12088	None Detected	None Detected		10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Alkalinity QC Summary (SM 2320B)

Date Analyzed: 2/26/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	40	40.7	101.75	95-105

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12173	179.7	179.5	0.1	10
AB12235	295.5	295.7	0.1	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Specific Conductance QC Summary (SM 2510B)

Date Analyzed: 2/26/2014

	Value (umhos/cm)	Result (umhos/cm)	% Rec	Acceptance Criteria %Rec
IPC	1412	1412	100.0%	95-105

Sample ID	Sample (umhos/cm)	Sample Dup (umhos/cm)	% RPD	Acceptance Criteria % RPD
AB12170	2780	2782	0.1%	10
AB12203	118	118	0.0%	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

300.0 QC Summary 2/26/2014

All units expressed in mg/L

	F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
	2	20	2	20	2	2	2
IPC	2.12	19.92	2.11	19.44	2.11	2.01	1.88
Recovery 90-110%	105.78	99.58	105.57	97.22	105.27	100.28	94.23
CCV1	2.10	19.77	2.11	19.29	2.07	1.99	1.84
Recovery 90-110%	104.80	98.86	105.37	96.46	103.39	99.56	91.99
RPD 10%	0.93	0.73	0.19	0.78	1.80	0.72	2.40
CCV2	2.09	19.75	2.12	19.30	2.07	1.99	1.83
Recovery 90-110%	104.57	98.73	105.80	96.51	103.48	99.70	91.50
RPD 10%	1.15	0.86	0.22	0.72	1.72	0.58	2.94
CCV3	2.08	19.68	2.10	19.15	2.06	1.98	1.69
Recovery 90-110%	103.90	98.38	104.76	95.73	103.22	98.76	84.71
RPD 10%	1.79	1.22	0.77	1.54	1.97	1.52	10.64
	F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
	2	20	2	20	2	2	2
AB12158	0.38	52.14	0.17	91.66	0.00	0.03	0.00
AB12158+LFM	2.55	71.11	2.17	109.53	1.55	1.95	1.70
AB12158+LFMD	2.57	71.51	2.17	110.06	1.54	1.94	1.77
Average	2.56	71.31	2.17	109.79	1.54	1.95	1.73
Recovery 80-120%	109.34	95.86	99.75	90.68	77.11	95.98	86.75
RPD 10%	0.94	0.57	0.01	0.49	0.61	0.33	4.17
AB12174	0.16	12.22	0.54	30.13	0.00	0.00	0.00
AB12174+LFM	2.31	32.05	2.31	49.19	1.73	1.90	1.48
AB12174+LFMD	2.31	32.14	2.31	49.28	1.72	1.91	1.53
Average	2.31	32.10	2.31	49.24	1.72	1.91	1.50
Recovery 80-120%	107.28	99.39	88.39	95.52	86.24	95.27	75.24
RPD 10%	0.04	0.29	0.05	0.19	0.07	0.23	2.76

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

MBAS QC Summary (SM 5540C)

Date Analyzed: 2/28/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	0.050	0.052	104	80-120

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Ortho Phosphate QC Summary (Hach 8190)

Date: 3/2/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
LCS	0.200	0.220	110	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12155	0.052	0.200	0.241	0.243	94.5	95.5	0.8	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Total Phosphorus QC Summary (Hach 8190)

Date: 3/2/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
LCS	0.200	0.214	107	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12148	0.010	0.200	0.200	0.206	95	98	3.0	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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 MontereyBayAnalytical@usa.net
 http://www.MBASinc.com

Ammonia by Electrode QC Summary (SM 4500-NH3)

Date: 3/5/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC Low	0.050	0.043	86	90-110
IPC	0.500	0.462	92.4	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12148	0.020	0.500	0.536	0.550	103.2	106	2.6	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; IPC = Instrument Performance Check

RPD = Relative Percent Difference; Rec = Recovery

QC EPA 200.7

Batch # 20140305

Analyte/ WL	Range	IC	Prep	LCS	%Rec	LCSD	%Rec	%Diff	IC Verification			QCS (95-105%)		
		Blank	Blank	Value	85-115%	Value	85-115%		Value	Result	%Rec	Value	Result	%Rec
B 249.678	0.05-5ppm	0.00	0.00	1.00	100.0%	1.00	100.3%	0.3%	1	1.00	100.5%	1	1.00	99.7%
B 249.772	0.05-5ppm	0.01	0.00	1.00	100.2%	1.02	101.6%	1.3%	1	1.00	100.2%	1	1.00	99.8%
Ca 317.933	50-300ppm	-4.59	-4.59	49.3	98.5%	49.3	98.6%	0.1%	50	49.2	98.5%	50	48.2	96.4%
Ca 396.847	0.5-50ppm	-0.27	-0.26	50.3	100.6%	50.4	100.9%	0.3%	50	50.4	100.9%	50	49.6	99.2%
Fe 238.204	10ppb-100ppm	-4.46	-3.96	991	99.1%	1005	100.5%	1.3%	1000	1000	100.0%	1000	993	99.3%
Fe 259.940	10ppb-100ppm	-2.27	-2.47	993	99.3%	1001	100.1%	0.9%	1000	1004	100.4%	1000	1000	100.0%
K 766.491	0.5-750ppm	0.28	0.24	10.0	99.5%	9.9	99.2%	0.3%	10	9.9	99.3%	10	9.7	96.9%
Mg 202.582	50-1000ppm	-0.85	-0.83	50.0	100.0%	50.6	101.2%	1.2%	50	50.3	100.6%	50	50.5	100.9%
Mg 279.078	0.5-50ppm	0.02	0.00	49.5	99.1%	50.0	100.0%	0.9%	50	50.1	100.3%	50	49.7	99.4%
Mn 257.610	10ppb-11ppm	-1.56	-2.13	995	99.5%	1007	100.7%	1.2%	1000	1002	100.2%	1000	989	98.9%
Mn 260.568	10ppb-11ppm	-0.36	-0.92	996	99.6%	1006	100.6%	1.0%	1000	1002	100.2%	1000	991	99.1%
Na 568.821	50-1000ppm	8.10	9.30	51.8	103.6%	53.0	106.0%	2.3%	50	52.1	104.2%	50	50.6	101.1%
Na 589.592	0.5-50ppm	0.17	0.10	50.5	100.9%	50.5	101.0%	0.1%	50	50.1	100.3%	50	49.0	98.0%
Si 251.611	0.5-200ppm	0.02	-0.04	49.7	99.3%	50.1	100.3%	1.0%	50	50.1	100.2%	107	106.1	99.2%
Si 252.411	0.5-200ppm	0.01	-0.04	49.5	99.0%	50.0	100.0%	1.0%	50	50.1	100.1%	107	105.8	98.8%

Matrix Spikes

Sample ID AB12170

Analyte/ WL	Sample Value	MS	%Rec	MSD	%Rec	%Diff	CCV (90-110%)			%Diff	CC
		Value	70-130%	Value	70-130%		Value	Result	%Rec	10%	Blank
B 249.678	0.06	2.02	97.9%	2.03	98.6%	0.7%	1	0.98	98.4%	2.1%	0.00
B 249.772	0.06	2.04	99.4%	2.04	99.1%	0.3%	1	1.00	100.1%	0.1%	0.00
Ca 317.933	191.3	291.2	99.9%	289.4	98.1%	0.6%	50	49.3	98.6%	0.1%	-4.63
Ca 396.847	175.9	238.1	62.2%	236.9	61.0%	0.5%	50	50.1	100.1%	0.7%	-0.30
Cu 324.754	-8.6	1955	98.2%	1947	97.8%	0.4%	1000	993	99.3%	0.7%	-3.46
Cu 327.395	-2.0	1969	98.6%	1955	97.9%	0.7%	1000	996	99.6%	0.3%	-1.13
Fe 238.204	5.17	1988	99.1%	1977	98.6%	0.6%	1000	994	99.4%	0.6%	-4.53
Fe 259.940	6.77	1995	99.4%	1994	99.4%	0.0%	1000	1005	100.5%	0.1%	-3.24
K 766.491	4.89	24.3	97.2%	24.2	96.7%	0.5%	10	9.8	98.2%	1.1%	0.19
Mg 202.582	142.8	242.4	99.6%	241.4	98.6%	0.4%	50	50.3	100.5%	0.1%	-0.90

Mg 279.078	140.1	236.9	96.8%	236.3	96.2%	0.2%	50	49.9	99.7%	0.5%	-0.02
Mn 257.610	-4.11	1958	98.1%	1946	97.5%	0.6%	1000	998	99.8%	0.4%	-2.01
Mn 260.568	3.14	1969	98.3%	1959	97.8%	0.5%	1000	1000	100.0%	0.2%	-1.46
Na 568.821	164.1	256.2	92.1%	255.1	91.0%	0.4%	50	51.7	103.4%	0.8%	8.83
Na 589.592	162.4	258.0	95.5%	256.9	94.5%	0.4%	50	50.3	100.5%	0.2%	0.11
Si 251.611	36.9	135.6	98.7%	134.4	97.5%	0.9%	50	50.0	100.0%	0.2%	-0.07
Si 252.411	36.6	134.7	98.1%	134.2	97.7%	0.3%	50	49.7	99.4%	0.7%	-0.05

*Ceres Analytical Laboratory, Inc.
4919 Windplay Dr., Suite 1
El Dorado Hills, CA 95762*

March 10, 2014

Ceres ID: 10276

Monterey Bay Analytical
Mr. David Holland
4 Justin Court, Ste. D
Monterey, CA 93940

Mr. Holland,

Enclosed please find the results for one aqueous sample received on March 6, 2014. This sample was analyzed for 2,3,7,8-TCDD by EPA 1613. Rush 5 day turn-around time was provided for this work.

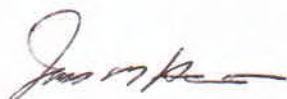
This work was authorized under M.B.A.'s Project # 12148.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

The Sample Tracking Section includes all external and internal chain of custodies, laboratory bench sheets, and any special instructions received.

If you have any questions regarding this report, please feel free to contact me at (888)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

<u>Ceres Sample ID:</u>	<u>Sample ID</u>	<u>Date Received</u>	<u>Collection Date & Time</u>
10276-001	CX-B1WQ Zone #6 (51-61 ft bags)	3/6/2014	2/25/2014 9:10

Section II: Data Summary

Sample ID: Method Blank								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-MB001	Date Received:	NA
Project:	12148		Sample Size:	1.000 L	QC Batch #:	1163	Date Extracted:	7-Mar-14
Date Collected:	NA				ZB-5 MS Analysis Date:	9-Mar-14		
Time Collected:	NA							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	1.40			<u>IS</u> ¹³ C-2,3,7,8-TCDD	106	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	105	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JMH			Reviewed by:	BS			

Sample ID: Ongoing Precision and Recovery								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-OPR001	Date Received:	NA
Project:	12148		Sample Size:	1.000 L	QC Batch #:	1163	Date Extracted:	7-Mar-14
Date Collected:	NA				ZB-5 MS Analysis Date:	9-Mar-14		
Time Collected:	NA							
Analyte	Conc. (ng/ml)	Limits^a	Qualifiers		Labeled Standards	Conc.	Limits^a	Qualifiers
2,3,7,8-TCDD	9.23	7.3-14.6			IS ¹³ C-2,3,7,8-TCDD	105	25-141	
					CRS ³⁷ Cl ₄ -2,3,7,8-TCDD	10.0	3.7-15.8	
					<i>a. Method acceptance criteria .</i>			
Analyst: JMH				Reviewed by: BS				

Sample ID: CX-B1WQ Zone #6 (51-61 ft bags)							
Client Data			Sample Data		Laboratory Data		
Name: Monterey Bay Analytical			Matrix: Aqueous		Lab Sample ID: 10276-001		Date Received: 6-Mar-14
Project: 12148			Sample Size: 1.059 L		QC Batch #: 1163		Date Extracted: 7-Mar-14
Date Collected: 25-Feb-14					ZB-5 MS Analysis Date: 9-Mar-14		
Time Collected: 9:10							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c Qualifiers
2,3,7,8-TCDD	ND	1.26			<u>IS</u> ¹³ C-2,3,7,8-TCDD	98.1	31 - 137
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	96.3	42 - 164
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.		
Analyst: JMH				Reviewed by: BS			

Section VI: Sample Tracking

4919 Windplay Dr. Suite 1
 El Dorado Hills, CA 95762
 Tel: (916)932-5011

Please Print in Pen

Ceres Project ID: _____
 Temperature: _____ °C

Reports and invoices will be delivered by email in .pdf format

Client Information	Invoice Information (if different from Client Info)	Project Information
Company Name: _____ Monterey Bay Analytical Contact Name: _____ David Holland Address: 4 Justin Court Ste D Monterey CA 93940 Ph: 831-375-6227 Email: montereybayanalytical@usa.net	Company Name: _____ Same Contact Name: _____ Address: _____ Ph: _____ Fx: _____ Email: _____	Ceres Quote #: _____ P.O. # _____ Project ID: _____ TAT (business days) _____ Std 15 days; Rush TAT available please call

Matrix abbreviations:

A: Aqueous S: Soil AS: Ash DW: Drinking Water
 E: Effluent SD: Sediment C: Clay SO: Solid
 I: Influent SL: Sludge CS: Clay Slurry O: Other (please comment)

	Sample ID	Sample Collection			Matrix	# of containers	EPA 1613	EPA 8290	NCASI 551	EPA 8280	EPA 613	Other	TEF
		Date	Time										<input type="checkbox"/> 1998 WHO <input type="checkbox"/> 2005 WHO <input type="checkbox"/> Other
													Comments
1	CX-B1WQ Zone #6 (51-61 ft bags)	2/25/2014	9:10	Aq	2	X							12148
2													(2,3,7,8 TCDD only)
3													5 day Rush Please
4													
5													
6													
7													
8													
9													
10													
11													
12													

Samples will be disposed of 45 days after submission of report, unless other provisions have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (signature and Printed Name)	Date	Time
David Holland	2/25/2014	16:00	J M Hedin	3/6/14	10:28

Client understands that all terms described in the proposals, quotations, and/or the general terms and conditions of Ceres Analytical Laboratory will be followed.
 Ceres Analytical Laboratory reserves the right to terminate its service or withhold delivery of reports, if in Ceres' discretion the terms of the project have been broken.

Sample Receipt Check List

Ceres ID: 10276	Date/Time: 3/6/14 10:28
Client Project ID: 12148	Received Temperature: 14.3°C Acceptable: <input checked="" type="radio"/> Y / <input type="radio"/> N
Chain of Custody Relinquished by signed?	<input checked="" type="radio"/> Y / <input type="radio"/> N
Custody Seals? Present?	<input type="radio"/> Y / <input type="radio"/> N
Intact?	<input type="radio"/> Y / <input type="radio"/> N
NA:	<input checked="" type="radio"/> NA
Unlabeled / Illegible Samples	<input checked="" type="radio"/> Y / <input type="radio"/> N
Proper Containers:	<input checked="" type="radio"/> Y / <input type="radio"/> N
Preservation Acceptable (Chemical or Temperature)?	<input checked="" type="radio"/> Y / <input type="radio"/> N
Drinking Water, Sodium Thiosulfate present?	<input type="radio"/> Y / <input type="radio"/> N / <input checked="" type="radio"/> NA
List COC discrepancies:	Q 3/6/14
List Damaged Samples:	Q 3/6/14

Ceres Analytical Laboratory

Process Request

Ceres ID: 10276 PB: 1163 Sample #: 1 Due Date: ASAP

Matrix (circle one): Drinking Water Aqueous Effluent Influent Ash
 Solid Soil Sediment Sludge Clay/Clay Slurry Other: _____

Method (check one):

1613 2,3,7,8-TCDD

8290 2,3,7,8-TCDD

1613 2,3,7,8-TCDD/F

8290 2,3,7,8-TCDD/F

1613 Cl₄-Cl₈

8290 Cl₄-Cl₈

8280 2,3,7,8-TCDD

NCASI 551

8280 2,3,7,8-TCDD/F

8280 Appendix IX

8280 Cl₄-Cl₈

Instructions:

Method: 1613
 SOP #: 301.1

Ceres Analytical Laboratory
 Sample Prep Bench Sheet

Appendix G

Ceres ID	Client ID	Ver.	wt/vol	ISS/PAR		CSS		AP	AB/AC	FC	RSS	
				chem/date/witness	chem/date/witness	chem/date/witness	chem/date/witness					
0-1163-MB001	Method Blank		1.0002	3/7/14 ml	3/8/14 ml	NA	3/8/14	NA	3/8/14 ml			
0-1163-OPR001	OPR		1.0002	↓	↓	↓	↓	↓	↓	↓	↓	↓
10276-1163-001	CX-B1WQ Zone #6 (51-61 ft bags)	✓	1.0592	↓	↓	↓	↓	↓	↓	↓	↓	↓

Comments: Ⓐ Spiked w/NSS

Soxhlet Start: 14:00 3/7/14
 Soxhlet Stop: 16:15 3/8/14

Samples Logged out by: JL 11:00 3/7/14
 Samples Returned by: NA
 Note samples Depleted: 1#

Sample Extracts Storage Location: Box 8
 Extracts to Instrument: 3/8/14 13:00 JL
 Extracts returned to Storage Location: 08:05 3/10/14 JL

Chemist: G-375

Method: 1613
SOP #: 301.1

Ceres Analytical Laboratory
Sample Prep Bench Sheet

Standard	Standard ID	Vol.	Expiration Date
ISS	5031212A	10.0	3/12/17
NSS	5031212B	10.0	3/12/17
CSS	5031212C	10.0	3/12/17
RSS	5031212D	20.0	3/12/17

Solvents/Solutions/Packing Materials

Name	Amount	Lot #	Exp. Date
Toluene	450ml	PB005770TOL	8/17/14
Hexanes	30,30,100,20	136735	6/30/14
Sigel	4g	P020514A	8/5/14
basic gel	4g	P012014A	7/20/14
Acid gel	8g	P012014B	7/20/14
Acid A1	6g	P123113C	6/30/14
Na2SO4	1.5g	P120413A	6/14/14
20% Dcm Hex	30ml	L021914A	8/19/14

Chemist:  G-376

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*	Results taken from dilution.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery

Cal Am Water Company
 Travis Peterson
 511 Pacific Lodge Road, Suite 100
 Pacific Grove, CA 93950

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS

montereybayanalytical@usa.net

ELAP Certification Number: 2385

Page 1 of 2

Monday, March 17, 2014

Lab Number: AB12621

Collection Date/Time: 3/8/2014 14:00 Sample Collector: SOBOWLEW J
 Submittal Date/Time: 3/9/2014 11:06 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-B2WQ Zone #1 (215-225 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO ₃)	SM2320B	mg/L	147		2		3/13/2014	LRH
Aluminum, Total	EPA200.8	ug/L	84	J	200	1000	3/17/2014	SM
Ammonia-N, Dissolved	SM4500NH3 D	mg/L	Not Detected		0.05		3/11/2014	LRH
Arsenic, Total	EPA200.8	ug/L	46		20	10	3/17/2014	SM
Barium, Dissolved	EPA200.8	ug/L	109	J	200		3/17/2014	SM
Bicarbonate (as HCO ₃ ⁻)	SM2320B	mg/L	179		10		3/14/2014	DH
Boron, Dissolved	EPA200.7	mg/L	1.54		0.5		3/13/2014	DC
Bromide, Dissolved	EPA300.0	mg/L	38		10		3/9/2014	DH
Calcium	EPA200.7	mg/L	1961		5		3/13/2014	DC
Calcium, Dissolved	EPA200.7	mg/L	1948		5		3/13/2014	DC
Carbamates by HPLC (EPA 531)	EPA531	ug/L	Not Detected	E			3/13/2014	BSK
Carbonate as CaCO ₃	SM2320B	mg/L	Not Detected		10		3/14/2014	DH
Chloride, Dissolved	EPA300.0	mg/L	13026		100		3/9/2014	DH
Chlorinated Pesticides and PCB (EP	EPA508	ug/L	Not Detected	E			3/14/2014	WECK
Color, Apparent (Unfiltered)	SM2120B	Color Units	21	H	3	15	3/10/2014	LRH
Copper, Total	EPA200.8	ug/L	Not Detected		4	1300	3/17/2014	SM
DBCP & EDB	EPA504.1	ug/L	Not Detected	E			3/13/2014	BSK
Dioxin	EPA-5 1613B	pg/L	Not Detected	E			3/14/2014	CERES
Diquat (EPA 549)	EPA549	ug/L	Not Detected	E			3/14/2014	BSK
Dissolved Anions		Meq/L	405.7				3/17/2014	DH
Dissolved Cations		Meq/L	399.0				3/17/2014	DH
Endothall	EPA548.1	ug/L	Not Detected	E			3/13/2014	BSK
Fluoride, Dissolved	EPA300.0	mg/L	Not Detected		0.2		3/9/2014	DH
Glyphosate	EPA547	ug/L	Not Detected	E			3/12/2014	BSK
Hardness (as CaCO ₃)	SM2340B	mg/L	8776		10		3/14/2014	DH
Hydroxide	SM2320B	mg/L	Not Detected		5		3/14/2014	DH
Iodide	EPA9056M	ug/L	Not Detected	E	10		3/15/2014	WECK
Iron	EPA200.7	ug/L	367		100	300	3/13/2014	DC
Iron, Dissolved	EPA200.7	ug/L	246		100	300	3/13/2014	DC
Kjeldahl Nitrogen, Dissolved	SM4500-NH3 B,	mg/L	Not Detected		0.5		3/17/2014	HM
Lithium	EPA200.8	ug/L	149		1		3/17/2014	SM
Magnesium	EPA200.7	mg/L	942		5		3/13/2014	DC
Magnesium, Dissolved	EPA200.7	mg/L	936		10		3/13/2014	DC
Manganese, Dissolved	EPA200.7	ug/L	Not Detected		100	50	3/13/2014	DC
Manganese, Total	EPA200.7	ug/L	Not Detected		100	50	3/13/2014	DC
MBAS (Surfactants)	SM5540C	mg/L	Not Detected		0.05	0.50	3/10/2014	DC
Nitrate as NO ₃	EPA300.0	mg/L	Not Detected		2	45	3/9/2014	DH
Nitrate+Nitrite as N	EPA300.0	mg/L	Not Detected		0.2		3/9/2014	DH

Lab Number: AB12621

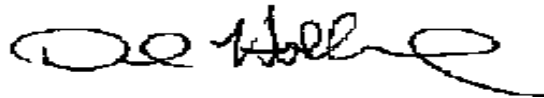
Collection Date/Time: 3/8/2014 14:00 Sample Collector: SOBOWLEW J
 Submittal Date/Time: 3/9/2014 11:00 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-B2WQ Zone #1 (215-225 ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Nitrite as NO ₂ -N, Dissolved	EPA300.0	mg/L	0.4		0.2		3/9/2014	DH
Odor Threshold at 60 C	SM2150B	TON	1		1	3	3/9/2014	DH
o-Phosphate-P, Dissolved	Hach 8190	mg/L	Not Detected		0.2		3/14/2014	HC
pH (Field Test)	SM4500-H+B	pH	6.71				3/9/2014	JS
pH (Laboratory)	SM4500-H+B	pH (H)	7.0				3/9/2014	FS
Phenoxy Acid Herbicides (515.3)	EPA515.3	ug/L	Not Detected	E			3/14/2014	BSK
Phosphorus, Dissolved	HACH 8190	mg/L	Not Detected		0.03		3/14/2014	HC
Potassium	EPA200.7	mg/L	54		5		3/13/2014	DC
Potassium, Dissolved	EPA200.7	mg/L	55		1		3/13/2014	DC
QC Ratio TDS/SEC	Calculation		0.72				3/14/2014	DH
Reg. Org. Compounds (EPA 525)	EPA525	ug/L	Not Detected	E			3/16/2014	BSK
Silica as SiO ₂ , Dissolved	EPA200.7	mg/L	34		5		3/13/2014	DC
Sodium	EPA200.7	mg/L	5273		5		3/13/2014	DC
Sodium, Dissolved	EPA200.7	mg/L	5135		5		3/13/2014	DC
Specific Conductance (E.C)	SM2510B	umhos/cm	36680		1	900	3/9/2014	FS
Specific Conductance (E.C) (Field)	SM2510B	umhos/cm	35189		1		3/9/2014	JS
Strontium, Dissolved	EPA200.8	ug/L	13328		100		3/17/2014	SM
Sulfate	EPA300.0	mg/L	1674		100	250	3/9/2014	DH
Temperature (Field)	SM2550	° C	18.8				3/9/2014	JS
Total Cations		Meq/L	406.1				3/17/2014	DH
Total Diss. Solids	SM2540C	mg/L	26500		10	500	3/13/2014	HM
Turbidity	EPA180.1	NTU	0.40		0.05	5.0	3/9/2014	DH
Turbidity (Field)	EPA180.1	NTU	0.91		0.05		3/9/2014	JS
Volatile Org. Compounds (524)	EPA524	ug/L	Not Detected	E			3/12/2014	BSK
Zinc, Total	EPA200.8	ug/L	218		200	5000	3/17/2014	SM

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12621 Dissolved B2WQ Zone 1**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	5135	0.04350	223.37
Potassium	55	0.02558	1.41
Calcium	1948	0.04990	97.21
Magnesium	936	0.08229	77.02
NH3-N	0	0.07143	0.00
		SUM	399.01

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	147	0.02000	2.94
Sulfate	1674	0.02082	34.85
Chloride	13026	0.02821	367.46
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0	0.07138	0.00
Phosphate-P	0.0	0.01031	0.00
Fluoride	0.0	0.05264	0.00
Bromide	38.0	0.01252	0.48
		SUM	405.73

ANION-CATION BALANCE: **-1** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	36680	
Cation Sum X 100	39901	109%
Anion Sum X 100	40573	111%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	23.9
Ca+Mg+Na	397.60
HCO3/Ca	0.03
dS/m	36.68
Value Table II	1.5
SAR adj	35.6

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12621 Total Ion B2WQ Zone 1**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	5273	0.04350	229.38
Potassium	54	0.02558	1.38
Calcium	1961	0.04990	97.85
Magnesium	942	0.08229	77.52
NH3-N	0	0.07143	0.00
		SUM	406.13

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	147	0.02000	2.94
Sulfate	1674	0.02082	34.85
Chloride	13026	0.02821	367.46
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0	0.07138	0.00
Phosphate-P	0.0	0.01031	0.00
Fluoride	0.0	0.05264	0.00
Bromide	38.0	0.01252	0.48
		SUM	405.73

ANION-CATION BALANCE: **0** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	36680	
Cation Sum X 100	40613	111%
Anion Sum X 100	40573	111%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	24.5
Ca+Mg+Na	404.75
HCO3/Ca	0.03
dS/m	36.68
Value Table II	1.5
SAR adj	36.5

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Appendix G

A4C0828

3/17/2014

Invoice: A406485

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

RE: Report for A4C0828 Cal Am

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 3/11/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAP Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montieth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montieth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details	Invoice Details
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Client: Monterey Bay Analytical
Report To: David Holland
Project #: 12621
Received: 3/11/2014 - 10:45
Report Due: 3/18/2014

Invoice To: Monterey Bay Analytical
Invoice Attn: David Holland
Project PO#: -

Sample Receipt Conditions

<p>Cooler: Default Cooler Temperature on Receipt °C: 2.2</p>	<p>Containers Intact COC/Labels Agree Received On Wet Ice Packing Material - Bubble Wrap Sample(s) were received in temperature range. Initial receipt at BSK-FAL</p>
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Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.

Report Distribution

Recipient(s)	Report Format
David Holland	Final.rpt

Certificate of Analysis

Sample ID: A4C0828-01
Sampled By: Josh Soboleu
Sample Description: CX-B2WQ Zone #1 (215-225 ft bgs) // 12621

Sample Date - Time: 03/08/14 - 16:00
Matrix: Water
Sample Type: Grab

Field Data: Cond.=35194 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A403016	03/12/14	03/13/14	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A403016	03/12/14	03/13/14	
Surrogate: 1-Br-2-Nitrobenzene	EPA 504.1	105 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A403008	03/13/14	03/14/14	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A403008	03/13/14	03/14/14	
2,4-D	EPA 515.3	ND	10	ug/L	1	A403008	03/13/14	03/14/14	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A403008	03/13/14	03/14/14	
Dalapon	EPA 515.3	ND	10	ug/L	1	A403008	03/13/14	03/14/14	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A403008	03/13/14	03/14/14	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A403008	03/13/14	03/14/14	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A403008	03/13/14	03/14/14	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A403008	03/13/14	03/14/14	
Surrogate: DCPAA	EPA 515.3	77 %	<i>Acceptable range: 70-130 %</i>						
<u>Volatile Organics by GC-MS</u>									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A402993	03/12/14	03/12/14	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A402993	03/12/14	03/12/14	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A402993	03/12/14	03/12/14	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A402993	03/12/14	03/12/14	

Certificate of Analysis

Sample ID: A4C0828-01
Sampled By: Josh Soboleu
Sample Description: CX-B2WQ Zone #1 (215-225 ft bgs) // 12621

Sample Date - Time: 03/08/14 - 16:00
Matrix: Water
Sample Type: Grab

Field Data: Cond.=35194 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Acetone	EPA 524.2	ND	10	ug/L	1	A402993	03/12/14	03/12/14	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A402993	03/12/14	03/12/14	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	BS1.0, CV0.0
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A402993	03/12/14	03/12/14	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A402993	03/12/14	03/12/14	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	

Certificate of Analysis

Sample ID: A4C0828-01
Sampled By: Josh Soboleu
Sample Description: CX-B2WQ Zone #1 (215-225 ft bgs) // 12621

Sample Date - Time: 03/08/14 - 16:00
Matrix: Water
Sample Type: Grab

Field Data: Cond.=35194 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A402993	03/12/14	03/12/14	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	100 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	103 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Prometryn	EPA 525.2	ND	2.0	ug/L	1	A403148	03/14/14	03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	106 %	<i>Acceptable range: 70-130 %</i>						
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A403148	03/14/14	03/16/14	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A403148	03/14/14	03/16/14	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A403148	03/14/14	03/16/14	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A403148	03/14/14	03/16/14	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A403148	03/14/14	03/16/14	BS1.0
Bromacil	EPA 525.2	ND	10	ug/L	1	A403148	03/14/14	03/16/14	
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A403148	03/14/14	03/16/14	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A403148	03/14/14	03/16/14	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A403148	03/14/14	03/16/14	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A403148	03/14/14	03/16/14	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A403148	03/14/14	03/16/14	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A403148	03/14/14	03/16/14	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A403148	03/14/14	03/16/14	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A403148	03/14/14	03/16/14	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A403148	03/14/14	03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	106 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A403040	03/12/14	03/13/14	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A403040	03/12/14	03/13/14	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A403040	03/12/14	03/13/14	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A403040	03/12/14	03/13/14	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A403040	03/12/14	03/13/14	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A403040	03/12/14	03/13/14	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A403040	03/12/14	03/13/14	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A403040	03/12/14	03/13/14	
<u>Carbamates by HPLC</u>									
Methiocarb	EPA 531.1	ND	2.0	ug/L	1	A403040	03/12/14	03/13/14	
Propoxur	EPA 531.1	ND	2.0	ug/L	1	A403040	03/12/14	03/13/14	

Certificate of Analysis

Sample ID: A4C0828-01
Sampled By: Josh Soboleu
Sample Description: CX-B2WQ Zone #1 (215-225 ft bgs) // 12621

Sample Date - Time: 03/08/14 - 16:00
Matrix: Water
Sample Type: Grab

Field Data: Cond.=35194 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A403000	03/12/14	03/12/14	
Surrogate: AMPA	EPA 547	114 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A403056	03/12/14	03/13/14	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A403100	03/13/14	03/14/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A403016

Prepared: 03/12/2014

Prep Method: EPA 504.1

Analyst: PYA

Blank (A403016-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							03/13/14	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							03/13/14	
Surrogate: 1-Br-2-Nitrobenzene	2.3			2.3		102	70-130			03/13/14	

Blank Spike (A403016-BS1)

Dibromochloropropane (DBCP)	0.13	0.010	ug/L	0.12		103	70-130			03/13/14	
Ethylene Dibromide (EDB)	0.11	0.020	ug/L	0.12		85	70-130			03/13/14	
Surrogate: 1-Br-2-Nitrobenzene	2.3			2.3		102	70-130			03/13/14	

Blank Spike Dup (A403016-BSD1)

Dibromochloropropane (DBCP)	0.13	0.010	ug/L	0.12		103	70-130	0	20	03/13/14	
Ethylene Dibromide (EDB)	0.11	0.020	ug/L	0.12		91	70-130	6	20	03/13/14	
Surrogate: 1-Br-2-Nitrobenzene	2.3			2.3		99	70-130			03/13/14	

Matrix Spike (A403016-MS1), Source: A4C0705-09

Dibromochloropropane (DBCP)	0.28	0.010	ug/L	0.13	0.16	99	65-135			03/13/14	
Ethylene Dibromide (EDB)	0.11	0.020	ug/L	0.13	ND	84	65-135			03/13/14	
Surrogate: 1-Br-2-Nitrobenzene	2.3			2.3		100	70-130			03/13/14	

EPA 515.3 - Quality Control

Batch: A403008

Prepared: 03/13/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank (A403008-BLK1)

2,4,5-T	ND	1.0	ug/L							03/13/14	
2,4,5-TP (Silvex)	ND	1.0	ug/L							03/13/14	
2,4-D	ND	10	ug/L							03/13/14	
Bentazon	ND	2.0	ug/L							03/13/14	
Dalapon	ND	10	ug/L							03/13/14	
Dicamba	ND	1.5	ug/L							03/13/14	
Dinoseb	ND	2.0	ug/L							03/13/14	
Pentachlorophenol	ND	0.20	ug/L							03/13/14	
Picloram	ND	1.0	ug/L							03/13/14	
Surrogate: DCPAA	57			58		99	70-130			03/13/14	

Blank Spike (A403008-BS1)

2,4,5-T	3.6	1.0	ug/L	4.0		89	70-130			03/13/14	
2,4,5-TP (Silvex)	0.77	1.0	ug/L	0.80		96	70-130			03/13/14	
2,4-D	0.38	10	ug/L	0.40		94	70-130			03/13/14	
Bentazon	7.6	2.0	ug/L	8.0		95	70-130			03/13/14	
Dalapon	4.2	10	ug/L	4.0		104	70-130			03/13/14	
Dicamba	5.8	1.5	ug/L	6.0		97	70-130			03/13/14	
Dinoseb	0.73	2.0	ug/L	0.80		92	70-130			03/13/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16		93	70-130			03/13/14	
Picloram	0.36	1.0	ug/L	0.40		91	70-130			03/13/14	
Surrogate: DCPAA	58			58		99	70-130			03/13/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A403008

Prepared: 03/13/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A403008-BSD1)

2,4,5-T	3.5	1.0	ug/L	4.0		89	70-130	1	20	03/14/14	
2,4,5-TP (Silvex)	0.76	1.0	ug/L	0.80		95	70-130	1	20	03/14/14	
2,4-D	0.38	10	ug/L	0.40		94	70-130	0	20	03/14/14	
Bentazon	7.6	2.0	ug/L	8.0		95	70-130	1	20	03/14/14	
Dalapon	4.8	10	ug/L	4.0		121	70-130	15	20	03/14/14	
Dicamba	5.8	1.5	ug/L	6.0		97	70-130	0	20	03/14/14	
Dinoseb	0.77	2.0	ug/L	0.80		97	70-130	5	20	03/14/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16		95	70-130	2	20	03/14/14	
Picloram	0.36	1.0	ug/L	0.40		90	70-130	1	20	03/14/14	
Surrogate: DCPAA	57			58		99	70-130			03/14/14	

Matrix Spike (A403008-MS1), Source: A4C0587-01

2,4,5-T	5.0	1.0	ug/L	4.0	ND	118	70-130			03/13/14	
2,4,5-TP (Silvex)	0.83	1.0	ug/L	0.80	ND	104	70-130			03/13/14	
2,4-D	0.47	10	ug/L	0.40	ND	119	70-130			03/13/14	
Bentazon	8.4	2.0	ug/L	8.0	ND	105	70-130			03/13/14	
Dalapon	7.8	10	ug/L	4.0	ND	107	70-130			03/13/14	
Dicamba	6.4	1.5	ug/L	6.0	ND	106	70-130			03/13/14	
Dinoseb	0.86	2.0	ug/L	0.80	ND	107	70-130			03/13/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16	ND	97	70-130			03/13/14	
Picloram	0.41	1.0	ug/L	0.40	ND	104	70-130			03/13/14	
Surrogate: DCPAA	55			58		94	70-130			03/13/14	

Matrix Spike Dup (A403008-MSD1), Source: A4C0587-01

2,4,5-T	5.0	1.0	ug/L	4.0	ND	118	70-130	0	20	03/14/14	
2,4,5-TP (Silvex)	0.83	1.0	ug/L	0.80	ND	104	70-130	0	20	03/14/14	
2,4-D	0.47	10	ug/L	0.40	ND	117	70-130	2	20	03/14/14	
Bentazon	8.4	2.0	ug/L	8.0	ND	105	70-130	0	20	03/14/14	
Dalapon	7.9	10	ug/L	4.0	ND	110	70-130	2	20	03/14/14	
Dicamba	6.4	1.5	ug/L	6.0	ND	106	70-130	0	20	03/14/14	
Dinoseb	0.86	2.0	ug/L	0.80	ND	107	70-130	0	20	03/14/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16	ND	97	70-130	0	20	03/14/14	
Picloram	0.42	1.0	ug/L	0.40	ND	105	70-130	2	20	03/14/14	
Surrogate: DCPAA	55			58		95	70-130			03/14/14	

EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402993-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							03/12/14	
1,1,1-Trichloroethane	ND	0.50	ug/L							03/12/14	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							03/12/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							03/12/14	
1,1,2-Trichloroethane	ND	0.50	ug/L							03/12/14	
1,1-Dichloroethane	ND	0.50	ug/L							03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402993-BLK1)

1,1-Dichloroethene	ND	0.50	ug/L							03/12/14	
1,1-Dichloropropene	ND	0.50	ug/L							03/12/14	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							03/12/14	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							03/12/14	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							03/12/14	
1,2-Dichlorobenzene	ND	0.50	ug/L							03/12/14	
1,2-Dichloroethane	ND	0.50	ug/L							03/12/14	
1,2-Dichloropropane	ND	0.50	ug/L							03/12/14	
1,3,5-Trimethylbenzene	ND	0.50	ug/L							03/12/14	
1,3-Dichlorobenzene	ND	0.50	ug/L							03/12/14	
1,3-Dichloropropane	ND	0.50	ug/L							03/12/14	
1,4-Dichlorobenzene	ND	0.50	ug/L							03/12/14	
2,2-Dichloropropane	ND	0.50	ug/L							03/12/14	
2-Butanone	ND	5.0	ug/L							03/12/14	
2-Chlorotoluene	ND	0.50	ug/L							03/12/14	
2-Hexanone	ND	10	ug/L							03/12/14	
4-Chlorotoluene	ND	0.50	ug/L							03/12/14	
4-Methyl-2-pentanone	ND	5.0	ug/L							03/12/14	
Acetone	ND	10	ug/L							03/12/14	
Benzene	ND	0.50	ug/L							03/12/14	
Bromobenzene	ND	0.50	ug/L							03/12/14	
Bromochloromethane	ND	0.50	ug/L							03/12/14	
Bromodichloromethane	ND	0.50	ug/L							03/12/14	
Bromoform	ND	0.50	ug/L							03/12/14	
Bromomethane	ND	0.50	ug/L							03/12/14	
Carbon Tetrachloride	ND	0.50	ug/L							03/12/14	
Chlorobenzene	ND	0.50	ug/L							03/12/14	
Chloroethane	ND	0.50	ug/L							03/12/14	
Chloroform	ND	0.50	ug/L							03/12/14	
Chloromethane	ND	0.50	ug/L							03/12/14	
cis-1,2-Dichloroethene	ND	0.50	ug/L							03/12/14	
cis-1,3-Dichloropropene	ND	0.50	ug/L							03/12/14	
Dibromochloromethane	ND	0.50	ug/L							03/12/14	
Dibromomethane	ND	0.50	ug/L							03/12/14	
Dichlorodifluoromethane	ND	0.50	ug/L							03/12/14	
Dichloromethane	ND	0.50	ug/L							03/12/14	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							03/12/14	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							03/12/14	
Ethylbenzene	ND	0.50	ug/L							03/12/14	
Hexachlorobutadiene	ND	0.50	ug/L							03/12/14	
Isopropylbenzene	ND	0.50	ug/L							03/12/14	
m,p-Xylenes	ND	0.50	ug/L							03/12/14	
Methyl-t-butyl ether	ND	0.50	ug/L							03/12/14	
Naphthalene	ND	0.50	ug/L							03/12/14	
n-Butylbenzene	ND	0.50	ug/L							03/12/14	
n-Propylbenzene	ND	0.50	ug/L							03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402993-BLK1)

o-Xylene	ND	0.50	ug/L							03/12/14	
p-Isopropyltoluene	ND	0.50	ug/L							03/12/14	
sec-Butylbenzene	ND	0.50	ug/L							03/12/14	
Styrene	ND	0.50	ug/L							03/12/14	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							03/12/14	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							03/12/14	
tert-Butylbenzene	ND	0.50	ug/L							03/12/14	
Tetrachloroethene (PCE)	ND	0.50	ug/L							03/12/14	
Toluene	ND	0.50	ug/L							03/12/14	
trans-1,2-Dichloroethene	ND	0.50	ug/L							03/12/14	
trans-1,3-Dichloropropene	ND	0.50	ug/L							03/12/14	
Trichloroethene (TCE)	ND	0.50	ug/L							03/12/14	
Trichlorofluoromethane	ND	5.0	ug/L							03/12/14	
Vinyl Chloride	ND	0.50	ug/L							03/12/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		97	70-130			03/12/14	
Surrogate: Bromofluorobenzene	51			50		101	70-130			03/12/14	

Blank Spike (A402993-BS1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		101	70-130			03/12/14	
1,1,1-Trichloroethane	10	0.50	ug/L	10		102	70-130			03/12/14	
1,1,2,2-Tetrachloroethane	10	0.50	ug/L	10		102	70-130			03/12/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	10	10	ug/L	10		104	70-130			03/12/14	
1,1,2-Trichloroethane	10	0.50	ug/L	10		100	70-130			03/12/14	
1,1-Dichloroethane	10	0.50	ug/L	10		102	70-130			03/12/14	
1,1-Dichloroethene	10	0.50	ug/L	10		103	70-130			03/12/14	
1,1-Dichloropropene	10	0.50	ug/L	10		102	70-130			03/12/14	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		100	70-130			03/12/14	
1,2,4-Trichlorobenzene	9.9	0.50	ug/L	10		99	70-130			03/12/14	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
1,2-Dichlorobenzene	10	0.50	ug/L	10		100	70-130			03/12/14	
1,2-Dichloroethane	10	0.50	ug/L	10		101	70-130			03/12/14	
1,2-Dichloropropane	10	0.50	ug/L	10		101	70-130			03/12/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		111	70-130			03/12/14	
1,3-Dichlorobenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
1,3-Dichloropropane	10	0.50	ug/L	10		100	70-130			03/12/14	
1,4-Dichlorobenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
2,2-Dichloropropane	10	0.50	ug/L	10		102	70-130			03/12/14	
2-Butanone	11	5.0	ug/L	10		114	70-130			03/12/14	
2-Chlorotoluene	10	0.50	ug/L	10		101	70-130			03/12/14	
2-Hexanone	10	10	ug/L	10		103	70-130			03/12/14	
4-Chlorotoluene	10	0.50	ug/L	10		102	70-130			03/12/14	
4-Methyl-2-pentanone	10	5.0	ug/L	10		102	70-130			03/12/14	
Acetone	11	10	ug/L	10		109	70-130			03/12/14	
Benzene	10	0.50	ug/L	10		101	70-130			03/12/14	
Bromobenzene	9.9	0.50	ug/L	10		99	70-130			03/12/14	
Bromochloromethane	9.9	0.50	ug/L	10		99	70-130			03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A402993-BS1)

Bromodichloromethane	10	0.50	ug/L	10		102	70-130			03/12/14	
Bromoform	9.6	0.50	ug/L	10		96	70-130			03/12/14	
Bromomethane	8.0	0.50	ug/L	10		80	70-130			03/12/14	
Carbon Tetrachloride	10	0.50	ug/L	10		104	70-130			03/12/14	
Chlorobenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
Chloroethane	10	0.50	ug/L	10		102	70-130			03/12/14	
Chloroform	10	0.50	ug/L	10		102	70-130			03/12/14	
Chloromethane	9.9	0.50	ug/L	10		99	70-130			03/12/14	
cis-1,2-Dichloroethene	10	0.50	ug/L	10		101	70-130			03/12/14	
cis-1,3-Dichloropropene	9.7	0.50	ug/L	10		97	70-130			03/12/14	
Dibromochloromethane	10	0.50	ug/L	10		100	70-130			03/12/14	
Dibromomethane	9.9	0.50	ug/L	10		99	70-130			03/12/14	
Dichlorodifluoromethane	10	0.50	ug/L	10		103	70-130			03/12/14	
Dichloromethane	10	0.50	ug/L	10		102	70-130			03/12/14	
Di-isopropyl ether (DIPE)	10	3.0	ug/L	10		101	70-130			03/12/14	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		100	70-130			03/12/14	
Ethylbenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
Hexachlorobutadiene	10	0.50	ug/L	10		101	70-130			03/12/14	
Isopropylbenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
m,p-Xylenes	20	0.50	ug/L	20		102	70-130			03/12/14	
Methyl-t-butyl ether	20	0.50	ug/L	20		100	70-130			03/12/14	
Naphthalene	10	0.50	ug/L	10		100	70-130			03/12/14	
n-Butylbenzene	10	0.50	ug/L	10		100	70-130			03/12/14	
n-Propylbenzene	10	0.50	ug/L	10		102	70-130			03/12/14	
o-Xylene	10	0.50	ug/L	10		101	70-130			03/12/14	
p-Isopropyltoluene	10	0.50	ug/L	10		101	70-130			03/12/14	
sec-Butylbenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
Styrene	15	0.50	ug/L	10		147	70-130			03/12/14	BS High
tert-Amyl Methyl Ether (TAME)	10	3.0	ug/L	10		103	70-130			03/12/14	
tert-Butyl alcohol (TBA)	10	2.0	ug/L	10		104	70-130			03/12/14	
tert-Butylbenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
Tetrachloroethene (PCE)	10	0.50	ug/L	10		102	70-130			03/12/14	
Toluene	10	0.50	ug/L	10		101	70-130			03/12/14	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		102	70-130			03/12/14	
trans-1,3-Dichloropropene	9.7	0.50	ug/L	10		97	70-130			03/12/14	
Trichloroethene (TCE)	10	0.50	ug/L	10		101	70-130			03/12/14	
Trichlorofluoromethane	10	5.0	ug/L	10		105	70-130			03/12/14	
Vinyl Chloride	10	0.50	ug/L	10		102	70-130			03/12/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.1			5.0		103	70-130			03/12/14	
Surrogate: Bromofluorobenzene	51			50		102	70-130			03/12/14	

Blank Spike Dup (A402993-BSD1)

1,1,1,2-Tetrachloroethane	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,1,1-Trichloroethane	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
1,1,2,2-Tetrachloroethane	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	10	10	ug/L	10		100	70-130	3	30	03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402993-BSD1)

1,1,2-Trichloroethane	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,1-Dichloroethane	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,1-Dichloroethene	9.8	0.50	ug/L	10		98	70-130	5	30	03/12/14	
1,1-Dichloropropene	9.8	0.50	ug/L	10		98	70-130	5	30	03/12/14	
1,2,3-Trichlorobenzene	9.7	0.50	ug/L	10		97	70-130	2	30	03/12/14	
1,2,4-Trichlorobenzene	9.6	0.50	ug/L	10		96	70-130	3	30	03/12/14	
1,2,4-Trimethylbenzene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,2-Dichlorobenzene	9.8	0.50	ug/L	10		98	70-130	2	30	03/12/14	
1,2-Dichloroethane	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,2-Dichloropropane	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		107	70-130	4	30	03/12/14	
1,3-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130	3	30	03/12/14	
1,3-Dichloropropane	9.8	0.50	ug/L	10		98	70-130	2	30	03/12/14	
1,4-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130	3	30	03/12/14	
2,2-Dichloropropane	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
2-Butanone	10	5.0	ug/L	10		101	70-130	12	30	03/12/14	
2-Chlorotoluene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
2-Hexanone	9.4	10	ug/L	10		94	70-130	9	30	03/12/14	
4-Chlorotoluene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
4-Methyl-2-pentanone	9.4	5.0	ug/L	10		94	70-130	9	30	03/12/14	
Acetone	9.5	10	ug/L	10		95	70-130	14	30	03/12/14	
Benzene	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
Bromobenzene	9.6	0.50	ug/L	10		96	70-130	3	30	03/12/14	
Bromochloromethane	9.8	0.50	ug/L	10		98	70-130	1	30	03/12/14	
Bromodichloromethane	9.9	0.50	ug/L	10		99	70-130	2	30	03/12/14	
Bromoform	9.4	0.50	ug/L	10		94	70-130	3	30	03/12/14	
Bromomethane	8.7	0.50	ug/L	10		87	70-130	9	30	03/12/14	
Carbon Tetrachloride	10	0.50	ug/L	10		100	70-130	4	30	03/12/14	
Chlorobenzene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
Chloroethane	9.8	0.50	ug/L	10		98	70-130	5	30	03/12/14	
Chloroform	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
Chloromethane	9.0	0.50	ug/L	10		90	70-130	9	30	03/12/14	
cis-1,2-Dichloroethene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
cis-1,3-Dichloropropene	9.5	0.50	ug/L	10		95	70-130	2	30	03/12/14	
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130	2	30	03/12/14	
Dibromomethane	9.8	0.50	ug/L	10		98	70-130	2	30	03/12/14	
Dichlorodifluoromethane	9.8	0.50	ug/L	10		98	70-130	5	30	03/12/14	
Dichloromethane	9.9	0.50	ug/L	10		99	70-130	3	30	03/12/14	
Di-isopropyl ether (DIPE)	9.7	3.0	ug/L	10		97	70-130	3	30	03/12/14	
Ethyl tert-Butyl Ether (ETBE)	9.7	0.50	ug/L	10		97	70-130	3	30	03/12/14	
Ethylbenzene	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
Hexachlorobutadiene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
Isopropylbenzene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
m,p-Xylenes	20	0.50	ug/L	20		98	70-130	4	30	03/12/14	
Methyl-t-butyl ether	20	0.50	ug/L	20		98	70-130	2	30	03/12/14	
Naphthalene	9.6	0.50	ug/L	10		96	70-130	4	30	03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402993-BSD1)

n-Butylbenzene	9.6	0.50	ug/L	10		96	70-130	4	30	03/12/14	
n-Propylbenzene	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
o-Xylene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
p-Isopropyltoluene	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
sec-Butylbenzene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
Styrene	14	0.50	ug/L	10		144	70-130	2	30	03/12/14	BS High
tert-Amyl Methyl Ether (TAME)	10	3.0	ug/L	10		100	70-130	3	30	03/12/14	
tert-Butyl alcohol (TBA)	9.2	2.0	ug/L	10		92	70-130	13	30	03/12/14	
tert-Butylbenzene	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
Tetrachloroethene (PCE)	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
Toluene	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
trans-1,2-Dichloroethene	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
trans-1,3-Dichloropropene	9.5	0.50	ug/L	10		95	70-130	2	30	03/12/14	
Trichloroethene (TCE)	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
Trichlorofluoromethane	10	5.0	ug/L	10		101	70-130	4	30	03/12/14	
Vinyl Chloride	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.1			5.0		103	70-130			03/12/14	
Surrogate: Bromofluorobenzene	51			50		102	70-130			03/12/14	

EPA 525.2 - Quality Control

Batch: A403148

Prepared: 03/14/2014

Prep Method: EPA 525.2

Analyst: GAK

Blank (A403148-BLK1)

Alachlor	ND	1.0	ug/L							03/16/14	
Atrazine	ND	0.50	ug/L							03/16/14	
Benzo(a)pyrene	ND	0.10	ug/L							03/16/14	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							03/16/14	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							03/16/14	
Bromacil	ND	10	ug/L							03/16/14	
Butachlor	ND	0.38	ug/L							03/16/14	
Diazinon	ND	0.25	ug/L							03/16/14	
Dimethoate	ND	10	ug/L							03/16/14	
Metolachlor	ND	0.50	ug/L							03/16/14	
Metribuzin	ND	0.50	ug/L							03/16/14	
Molinate	ND	2.0	ug/L							03/16/14	
Prometryn	ND	2.0	ug/L							03/16/14	
Propachlor	ND	0.50	ug/L							03/16/14	
Simazine	ND	1.0	ug/L							03/16/14	
Thiobencarb	ND	1.0	ug/L							03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.8			5.0		117	70-130			03/16/14	

Blank Spike (A403148-BS1)

Alachlor	0.51	1.0	ug/L	0.51		100	70-130			03/16/14	
Atrazine	0.53	0.50	ug/L	0.51		103	70-130			03/16/14	
Benzo(a)pyrene	0.093	0.10	ug/L	0.10		90	70-130			03/16/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A403148

Prepared: 03/14/2014

Prep Method: EPA 525.2

Analyst: GAK

Blank Spike (A403148-BS1)

Bis(2-ethylhexyl) adipate	3.3	3.0	ug/L	3.1		106	70-130			03/16/14	
Bis(2-ethylhexyl) phthalate	4.2	3.0	ug/L	3.1		138	70-130			03/16/14	BS High
Bromacil	2.6	10	ug/L	2.1		126	70-130			03/16/14	
Butachlor	1.4	0.38	ug/L	1.3		106	70-130			03/16/14	
Diazinon	0.047	0.25	ug/L	0.051		92	70-130			03/16/14	
Dimethoate	0.57	10	ug/L	0.51		111	70-130			03/16/14	
Metolachlor	2.8	0.50	ug/L	2.6		107	70-130			03/16/14	
Metribuzin	2.9	0.50	ug/L	2.6		114	70-130			03/16/14	
Molinate	2.9	2.0	ug/L	2.6		112	70-130			03/16/14	
Prometryn	0.63	0.50	ug/L	0.51		123	70-130			03/16/14	
Propachlor	3.0	0.50	ug/L	2.6		116	70-130			03/16/14	
Simazine	0.39	1.0	ug/L	0.36		109	70-130			03/16/14	
Thiobencarb	0.59	1.0	ug/L	0.51		114	70-130			03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.5			5.1		107	70-130			03/16/14	

Blank Spike Dup (A403148-BSD1)

Alachlor	0.54	1.0	ug/L	0.54		100	70-130	5	30	03/16/14	
Atrazine	0.58	0.50	ug/L	0.54		108	70-130	9	30	03/16/14	
Benzo(a)pyrene	0.11	0.10	ug/L	0.11		100	70-130	15	30	03/16/14	
Bis(2-ethylhexyl) adipate	3.5	3.0	ug/L	3.2		109	70-130	7	30	03/16/14	
Bis(2-ethylhexyl) phthalate	4.8	3.0	ug/L	3.2		148	70-130	12	30	03/16/14	BS High
Bromacil	2.7	10	ug/L	2.1		124	70-130	3	30	03/16/14	
Butachlor	1.4	0.38	ug/L	1.3		108	70-130	6	30	03/16/14	
Diazinon	0.057	0.25	ug/L	0.054		106	70-130	18	30	03/16/14	
Dimethoate	0.56	10	ug/L	0.54		104	70-130	3	30	03/16/14	
Metolachlor	2.8	0.50	ug/L	2.7		104	70-130	1	30	03/16/14	
Metribuzin	3.1	0.50	ug/L	2.7		114	70-130	4	30	03/16/14	
Molinate	3.2	2.0	ug/L	2.7		118	70-130	9	30	03/16/14	
Prometryn	0.65	0.50	ug/L	0.54		121	70-130	3	30	03/16/14	
Propachlor	3.2	0.50	ug/L	2.7		119	70-130	7	30	03/16/14	
Simazine	0.41	1.0	ug/L	0.38		110	70-130	5	30	03/16/14	
Thiobencarb	0.63	1.0	ug/L	0.54		117	70-130	7	30	03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.7			5.4		107	70-130			03/16/14	

Matrix Spike (A403148-MS1), Source: A4C0755-02

Alachlor	0.52	1.0	ug/L	0.52	ND	99	70-130			03/16/14	
Atrazine	0.52	0.50	ug/L	0.52	ND	99	70-130			03/16/14	
Benzo(a)pyrene	0.13	0.10	ug/L	0.10	ND	95	70-130			03/16/14	
Bis(2-ethylhexyl) adipate	3.4	3.0	ug/L	3.1	ND	109	70-130			03/16/14	
Bis(2-ethylhexyl) phthalate	4.1	3.0	ug/L	3.1	ND	110	70-130			03/16/14	
Bromacil	2.5	10	ug/L	2.1	ND	122	70-130			03/16/14	
Butachlor	1.4	0.38	ug/L	1.3	ND	105	70-130			03/16/14	
Diazinon	0.055	0.25	ug/L	0.052	ND	106	70-130			03/16/14	
Dimethoate	0.59	10	ug/L	0.52	ND	113	70-130			03/16/14	
Metolachlor	2.7	0.50	ug/L	2.6	ND	103	70-130			03/16/14	
Metribuzin	2.7	0.50	ug/L	2.6	ND	103	70-130			03/16/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A403148

Prepared: 03/14/2014

Prep Method: EPA 525.2

Analyst: GAK

Matrix Spike (A403148-MS1), Source: A4C0755-02

Molinate	2.9	2.0	ug/L	2.6	ND	110	70-130			03/16/14	
Prometryn	0.53	0.50	ug/L	0.52	ND	101	70-130			03/16/14	
Propachlor	2.9	0.50	ug/L	2.6	ND	111	70-130			03/16/14	
Simazine	0.34	1.0	ug/L	0.36	ND	93	70-130			03/16/14	
Thiobencarb	0.55	1.0	ug/L	0.52	ND	105	70-130			03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.6			5.2		108	70-130			03/16/14	

EPA 531.1 - Quality Control

Batch: A403040

Prepared: 03/12/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank (A403040-BLK1)

3-Hydroxycarbofuran	ND	3.0	ug/L							03/12/14	
Aldicarb	ND	3.0	ug/L							03/12/14	
Aldicarb Sulfone	ND	2.0	ug/L							03/12/14	
Aldicarb Sulfoxide	ND	3.0	ug/L							03/12/14	
Carbaryl	ND	5.0	ug/L							03/12/14	
Carbofuran	ND	5.0	ug/L							03/12/14	
Methiocarb	ND	2.0	ug/L							03/12/14	
Methomyl	ND	2.0	ug/L							03/12/14	
Oxamyl	ND	20	ug/L							03/12/14	
Propoxur	ND	2.0	ug/L							03/12/14	

Blank Spike (A403040-BS1)

3-Hydroxycarbofuran	4.2	3.0	ug/L	4.0		106	80-120			03/12/14	
Aldicarb	4.1	3.0	ug/L	4.0		103	80-120			03/12/14	
Aldicarb Sulfone	4.3	2.0	ug/L	4.0		107	80-120			03/12/14	
Aldicarb Sulfoxide	4.3	3.0	ug/L	4.0		106	80-120			03/12/14	
Carbaryl	4.2	5.0	ug/L	4.0		104	80-120			03/12/14	
Carbofuran	4.2	5.0	ug/L	4.0		105	80-120			03/12/14	
Methiocarb	4.5	2.0	ug/L	4.0		112	80-120			03/12/14	
Methomyl	4.4	2.0	ug/L	4.0		109	80-120			03/12/14	
Oxamyl	4.2	20	ug/L	4.0		106	80-120			03/12/14	
Propoxur	4.3	2.0	ug/L	4.0		107	80-120			03/12/14	

Blank Spike Dup (A403040-BSD1)

3-Hydroxycarbofuran	4.3	3.0	ug/L	4.0		108	80-120	2	20	03/12/14	
Aldicarb	4.1	3.0	ug/L	4.0		103	80-120	0	20	03/12/14	
Aldicarb Sulfone	4.3	2.0	ug/L	4.0		107	80-120	1	20	03/12/14	
Aldicarb Sulfoxide	4.3	3.0	ug/L	4.0		107	80-120	0	20	03/12/14	
Carbaryl	4.2	5.0	ug/L	4.0		106	80-120	1	20	03/12/14	
Carbofuran	4.2	5.0	ug/L	4.0		105	80-120	0	20	03/12/14	
Methiocarb	4.2	2.0	ug/L	4.0		104	80-120	7	20	03/12/14	
Methomyl	4.3	2.0	ug/L	4.0		107	80-120	2	20	03/12/14	
Oxamyl	4.2	20	ug/L	4.0		106	80-120	0	20	03/12/14	
Propoxur	4.1	2.0	ug/L	4.0		102	80-120	6	20	03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A403040

Prepared: 03/12/2014

Prep Method: EPA 531.1

Analyst: AAR

Matrix Spike (A403040-MS1), Source: A4C0825-01

3-Hydroxycarbofuran	4.1	3.0	ug/L	4.0	ND	103	65-135			03/13/14	
Aldicarb	3.9	3.0	ug/L	4.0	ND	99	65-135			03/13/14	
Aldicarb Sulfone	4.1	2.0	ug/L	4.0	ND	102	65-135			03/13/14	
Aldicarb Sulfoxide	4.1	3.0	ug/L	4.0	ND	103	65-135			03/13/14	
Carbaryl	4.1	5.0	ug/L	4.0	ND	103	65-135			03/13/14	
Carbofuran	4.1	5.0	ug/L	4.0	ND	101	65-135			03/13/14	
Methiocarb	4.1	2.0	ug/L	4.0	ND	96	65-135			03/13/14	
Methomyl	4.2	2.0	ug/L	4.0	ND	105	65-135			03/13/14	
Oxamyl	4.1	20	ug/L	4.0	ND	102	65-135			03/13/14	
Propoxur	4.0	2.0	ug/L	4.0	ND	101	65-135			03/13/14	

EPA 547 - Quality Control

Batch: A403000

Prepared: 03/12/2014

Prep Method: EPA 547

Analyst: RJB

Blank (A403000-BLK1)

Glyphosate	ND	25	ug/L							03/12/14	
Surrogate: AMPA	110			100		113	70-130			03/12/14	

Blank Spike (A403000-BS1)

Glyphosate	100	25	ug/L	100		105	70-130			03/12/14	
Surrogate: AMPA	110			100		107	70-130			03/12/14	

Blank Spike Dup (A403000-BSD1)

Glyphosate	120	25	ug/L	100		118	70-130	12	30	03/12/14	
Surrogate: AMPA	120			100		119	70-130			03/12/14	

Matrix Spike (A403000-MS1), Source: A4C0880-01

Glyphosate	120	25	ug/L	100	ND	115	70-130			03/12/14	
Surrogate: AMPA	130			100		125	70-130			03/12/14	

Matrix Spike Dup (A403000-MSD1), Source: A4C0880-01

Glyphosate	110	25	ug/L	100	ND	109	70-130	5	30	03/12/14	
Surrogate: AMPA	120			100		117	70-130			03/12/14	

EPA 548.1 - Quality Control

Batch: A403056

Prepared: 03/12/2014

Prep Method: EPA 548.1

Analyst: GAK

Blank (A403056-BLK1)

Endothall	ND	45	ug/L							03/13/14	
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Blank Spike (A403056-BS1)

Endothall	17	45	ug/L	20		85	60-111			03/13/14	
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Blank Spike Dup (A403056-BSD1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 548.1 - Quality Control

Batch: A403056

Prepared: 03/12/2014

Prep Method: EPA 548.1

Analyst: GAK

Blank Spike Dup (A403056-BSD1)

Endothall	14	45	ug/L	20		71	60-111	18	46	03/13/14	
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Matrix Spike (A403056-MS1), Source: A4C0610-01

Endothall	ND	45	ug/L	20	ND	0	10-122			03/13/14	MS1.0 Low
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EPA 549.2 - Quality Control

Batch: A403100

Prepared: 03/13/2014

Prep Method: EPA 549.2

Analyst: PYA

Blank (A403100-BLK1)

Diquat	ND	4.0	ug/L							03/14/14	
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Blank Spike (A403100-BS1)

Diquat	3.3	4.0	ug/L	4.0		83	70-130			03/14/14	
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Blank Spike Dup (A403100-BSD1)

Diquat	3.2	4.0	ug/L	4.0		79	70-130	5	30	03/14/14	
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Matrix Spike (A403100-MS1), Source: A4C0537-01

Diquat	3.0	4.0	ug/L	4.0	ND	75	70-130			03/14/14	
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Matrix Spike (A403100-MS2), Source: A4C0537-02

Diquat	3.4	4.0	ug/L	4.0	ND	85	70-130			03/14/14	
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Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of Oregon - NELAP	4021	State of Washington	C997
State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA

BSK is not accredited under the NELAC program for the following parameters:

A4C0828



Monterey Bay Analytical

Monte6227



03112014

Turnaround: Standard

Due Date: 3/18/2014



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$			Were correct containers and preservatives received for the tests requested?		
	Yes	No	NA	Yes	No	NA
COC Info	If samples were taken today, is there evidence that chilling has begun?			Were there bubbles in the VOA vials? (Volatiles Only)		
	Yes	No	NA	Yes	No	NA
	Did all bottles arrive unbroken and intact?			Was a sufficient amount of sample received?		
	Yes	No	NA	Yes	No	NA
	Did all bottle labels agree with COC?			Do samples have a hold time <72 hours?		
Yes	No	NA	Yes	No	NA	
COC Info	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?			Was PM notified of discrepancies?		
	Yes	No	NA	Yes	No	NA
Bottles Received	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?			
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—			
	None (P) ^{White Cap}	—	—			
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y N			
	HNO_3 (P) ^{Red Cap}	—	—			
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y N			
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y N			
	NaOH + ZnAc (P)	pH ≥ 9	Y N			
	Dissolved Oxygen 300ml (g)	—	—			
	None (AG) 608/8081/8082-625, 632/8321, 8151, 8270	—	—			
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—			
	$\text{Na}_2\text{S}_2\text{O}_5$ + MCAA (CG) ^{Orange Label} 531	pH = 3	Y N			
	NH_4Cl (AG) ^{Purple Label} 552	—	—			
	EDA (AG) ^{Brown Label} DBPs	—	—			
	Ascorbic + Maleic (AG) ^{Lt Green Label} 524.3	—	—			
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—			
	Buffer pH 4 (CG)	—	—			
	None (CG)	—	—			
	H_3PO_4 (CG) ^{Salmon Label}	—	—			
	Other:					
	Asbestos 1Liter Plastic w/ Foil	—	—			
	Low Level Hg / Metals Double Baggie	—	—			
	Bottled Water	—	—			
	Clear Glass Jar: 250 / 500 / 1 Liter	—	—			
Soil Tube Brass / Steel / Plastic	—	—				
Tedlar Bag / Plastic Bag	—	—				
Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials
	S P			S P		
Comments	S P			S P		

Ceres Analytical Laboratory, Inc.
4919 Windplay Dr., Suite 1
El Dorado Hills, CA 95762

March 15, 2014

Ceres ID: 10286

Monterey Bay Analytical
Mr. David Holland
4 Justin Court, Ste. D
Monterey, CA 93940

Mr. Holland,

Enclosed please find the results for one aqueous sample received on March 11, 2014. This sample was analyzed for 2,3,7,8-TCDD by EPA 1613. Rush 5 day turn-around time was provided for this work.

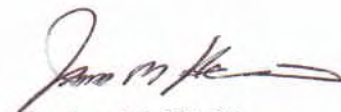
This work was authorized under M.B.A.'s Project # 12621.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

The Sample Tracking Section includes all external and internal chain of custodies, laboratory bench sheets, and any special instructions received.

If you have any questions regarding this report, please feel free to contact me at (888)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

<u>Ceres Sample ID:</u>	<u>Sample ID</u>	<u>Date Received</u>	<u>Collection Date & Time</u>
10286-001	CX-B2WQ Zone #1 (215-225ft bags)	3/11/2014	3/8/2014 16:00

Section II: Data Summary

Sample ID: Method Blank								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-MB001	Date Received:	NA
Project:	12621		Sample Size:	1.000 L	QC Batch #:	1165	Date Extracted:	13-Mar-14
Date Collected:	NA				ZB-5 MS Analysis Date:	14-Mar-14		
Time Collected:	NA							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	3.25			<u>IS</u> ¹³ C-2,3,7,8-TCDD	104	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	104	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JM			Reviewed by:	BS			

Sample ID: Ongoing Precision and Recovery								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-OPR001	Date Received:	NA
Project:	12621		Sample Size:	1.000 L	QC Batch #:	1165	Date Extracted:	13-Mar-14
Date Collected:	NA				ZB-5 MS Analysis Date:	14-Mar-14		
Time Collected:	NA							
Analyte	Conc. (ng/ml)	Limits^a	Qualifiers		Labeled Standards	Conc.	Limits^a	Qualifiers
2,3,7,8-TCDD	9.24	7.3-14.6			IS ¹³ C-2,3,7,8-TCDD	104	25-141	
					CRS ³⁷ Cl ₄ -2,3,7,8-TCDD	9.88	3.7-15.8	
					<i>a. Method acceptance criteria .</i>			
Analyst: JMH				Reviewed by: BS				

Sample ID: CX-B2WQ Zone #1 (215-225 ft bags)								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	10286-001	Date Received:	11-Mar-14
Project:	12621		Sample Size:	1.046 L	QC Batch #:	1165	Date Extracted:	13-Mar-14
Date Collected:	8-Mar-14				ZB-5 MS Analysis Date:	14-Mar-14		
Time Collected:	16:00							
Analyte	Conc. (pg/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standards	% R	LCL-UCL ^c	Qualifiers
2,3,7,8-TCDD	ND	1.96			<u>IS</u> ¹³ C-2,3,7,8-TCDD	93.6	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	93.1	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JMH				Reviewed by:	BS		

Section VI: Sample Tracking

4919 Windplay Dr. Suite 1
 El Dorado Hills, CA 95762
 Tel: (916)932-5011

Please Print in Pen

Ceres Project ID: _____
 Temperature: _____ °C

Reports and invoices will be delivered by email in .pdf format

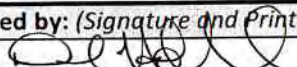
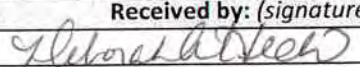
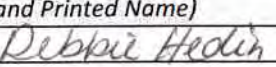
Client Information	Invoice Information (if different from Client Info)	Project Information
Company Name: _____ Monterey Bay Analytical Contact Name: _____ David Holland Address: 4 Justin Court Ste D Monterey CA 93940 Ph: 831-375-6227 Email: montereybayanalytical@usa.net	Company Name: _____ Same Contact Name: _____ Address: _____ Ph: _____ Fx: _____ Email: _____	Ceres Quote #: _____ P.O. # _____ Project ID: _____ TAT (business days) _____ Std 15 days; Rush TAT available please call

Matrix abbreviations:

A: Aqueous S: Soil AS: Ash DW: Drinking Water
 E: Effluent SD: Sediment C: Clay SO: Solid
 I: Influent SL: Sludge CS: Clay Slurry O: Other (please comment)

	Sample ID	Sample Collection			Matrix	# of containers	EPA 1613	EPA 8290	NCASI 551	EPA 8280	EPA 613	Other	TEF
		Date	Time	Comments									
1	CX-B2WQ Zone #1 (215-225 ft bags)	3/8/2014	16:00	Aq	2	X							<input type="checkbox"/> 1998 WHO <input type="checkbox"/> 2005 WHO <input type="checkbox"/> Other
2													12621
3													(2,3,7,8 TCDD only)
4													5 day Rush Please
5													
6													
7													
8													
9													
10													
11													
12													

Samples will be disposed of 45 days after submission of report, unless other provisions have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (signature and Printed Name)	Date	Time
David Holland 	3/10/2014	12:00	 Deborah A. Neesh  Debbie Hedlin	3/11/14	10:27

Client understands that all terms described in the proposals, quotations, and/or the general terms and conditions of Ceres Analytical Laboratory will be followed.
 Ceres Analytical Laboratory reserves the right to terminate its service or withhold delivery of reports, if in Ceres' discretion the terms of the project have been broken.

Sample Receipt Check List

Ceres ID: 10286	Date/Time: 3/11/14 10:17
Client Project ID: 12621	Received Temperature: 0.2 Acceptable: (Y) N
Chain of Custody Relinquished by signed?	(Y) N
Custody Seals? Present?	Y / N
Intact?	Y / N
NA:	(NA)
Unlabeled / Illegible Samples	Y / (N)
Proper Containers:	(Y) N
Preservation Acceptable (Chemical or Temperature)?	(Y) N
Drinking Water, Sodium Thiosulfate present?	Y / N / (NA)
List COC discrepancies:	yes 3/11/14
List Damaged Samples:	yes 3/11/14

Ceres Analytical Laboratory

Process Request

Ceres ID: 10286 PB: 1165 Sample #s: 1 Due Date: 3/16/14

Matrix (circle one): Drinking Water Aqueous Effluent Influent Ash

 Solid Soil Sediment Sludge Clay/Clay Slurry Other: _____

Method (check one): 1613 2,3,7,8-TCDD 8290 2,3,7,8-TCDD

1613 2,3,7,8-TCDD/F 8290 2,3,7,8-TCDD/F

1613 Cl₄-Cl₈ 8290 Cl₄-Cl₈

8280 2,3,7,8-TCDD NCASI 551

8280 2,3,7,8-TCDD/F

8280 Appendix IX

8280 Cl₄-Cl₈

Instructions:

Method: 1613
 SOP #: 201.1

Ceres Analytical Laboratory
 Sample Prep Bench Sheet

Appendix G

Ceres ID	Client ID	Ver.	wt/vol	ISS/PAR	CSS	AP	AB/AC	FC	RSS
				chem/date/witness	chem/date/witness				chem/date/witness
0-1165-MB001	Method Blank		1.000 L	3/13/14 [initials]	3/14/14 [initials]	NA	3/14/14	NA	3/14/14 [initials]
0-1165-OPR001	OPR		1.000 L	↓	↓	↓	↓	↓	↓
10286-1165-001	CX-B2WQ Zone#1 (215-225 ft)	✓	1.046 L	↓	↓	↓	↓	↓	↓

Comments: ⓐ Spiked w/ RSS

Soxhlet Start: 15:00 3/13/14
 Soxhlet Stop: 07:15 3/14/14

Samples Logged out by: [initials] 11:00 3/13/14
 Samples Returned by: NA
 Note samples Depleted: 1 A

Sample Extracts Storage Location: Box 8
 Extracts to Instrument: 10:20 3/14/14 [initials]
 Extracts returned to Storage Location: 09:00 3/15/14 [initials]


Method: 1613
SOP #: 301.1

Ceres Analytical Laboratory
Sample Prep Bench Sheet

Standard	Standard ID	Vol.	Expiration Date
ISS	5031212A	10ul	3/12/17
NSS	5031212B	10ul	3/12/17
CSS	5031212C	10ul	3/12/17
RSS	5031212D	20ul	3/12/17

Solvents/Solutions/Packing Materials

Name	Amount	Lot #	Exp. Date
Toluene	450ml	PB005770TOL	8/17/14
Hexane	30,30,100,20	53283	8/11/14
Sigel	4g	P020514A	8/5/14
Basicgel	4g	P012014A	7/20/14
Acid gel	8g	P031114A	9/11/14
Acid A1	6g	P031114B	9/11/14
Na ₂ SO ₄	1.5g	P120413A	6/4/14
20% Decm Hex	30ml	L031214A	9/12/14

Chemist:  G-415

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*	Results taken from dilution.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery

CERTIFICATE OF ANALYSIS

Client: Monterey Bay Analytical Services 4 Justin Court, Suite D Monterey CA, 93940	Report Date: 03/17/14 13:53
Attention: David Holland	Received Date: 03/11/14 09:20
Phone: (831) 375-6227	Turn Around: 5 workdays
Fax: (831) 641-0734	Client Project: Cal Am
Work Order(s): 4C11005	

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear David Holland :

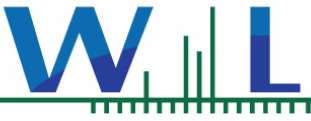
Enclosed are the results of analyses for samples received 03/11/14 09:20 with the Chain of Custody document. The samples were received in good condition, at 4.8 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager





Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:53

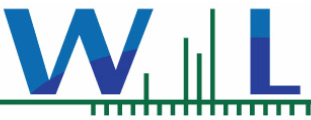
ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
CX-B2WQ Zone #1 (215-225 ft bgs)	Josh Soboleu	12621	4C11005-01	Water	03/08/14 16:00

ANALYSES

Anions by IC, EPA Method 300.0/300.1/326

Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:53

4C11005-01 CX-B2WQ Zone #1 (215-225 ft bgs)

Sampled: 03/08/14 16:00

Sampled By: Josh Soboleu

Matrix: Water

Sample Note: 12621

Anions by IC, EPA Method 300.0/300.1/326

Method: EPA 9056A

Batch: W4C0833

Prepared: 03/15/14 10:30

Analyst: atl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Iodide	ND	250	ug/l	25	03/15/14 15:05	M-02

Chlorinated Pesticides and/or PCBs

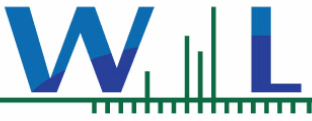
Method: EPA 508

Batch: W4C0665

Prepared: 03/12/14 14:41

Analyst: mxw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
4,4'-DDD	ND	0.010	ug/l	1	03/14/14 01:44	
4,4'-DDE	ND	0.010	ug/l	1	03/14/14 01:44	
4,4'-DDT	ND	0.010	ug/l	1	03/14/14 01:44	
Aldrin	ND	0.010	ug/l	1	03/14/14 01:44	
alpha-BHC	ND	0.010	ug/l	1	03/14/14 01:44	
Aroclor 1016	ND	0.10	ug/l	1	03/14/14 01:44	
Aroclor 1221	ND	0.10	ug/l	1	03/14/14 01:44	
Aroclor 1232	ND	0.10	ug/l	1	03/14/14 01:44	
Aroclor 1242	ND	0.10	ug/l	1	03/14/14 01:44	
Aroclor 1248	ND	0.10	ug/l	1	03/14/14 01:44	
Aroclor 1254	ND	0.10	ug/l	1	03/14/14 01:44	
Aroclor 1260	ND	0.10	ug/l	1	03/14/14 01:44	
beta-BHC	ND	0.010	ug/l	1	03/14/14 01:44	
Chlordane (tech)	ND	0.10	ug/l	1	03/14/14 01:44	
Chlorothalonil	ND	0.050	ug/l	1	03/14/14 01:44	
delta-BHC	ND	0.010	ug/l	1	03/14/14 01:44	
Dieldrin	ND	0.010	ug/l	1	03/14/14 01:44	
Endosulfan I	ND	0.010	ug/l	1	03/14/14 01:44	
Endosulfan II	ND	0.010	ug/l	1	03/14/14 01:44	
Endosulfan sulfate	ND	0.010	ug/l	1	03/14/14 01:44	
Endrin	ND	0.010	ug/l	1	03/14/14 01:44	
Endrin aldehyde	ND	0.010	ug/l	1	03/14/14 01:44	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	03/14/14 01:44	
Heptachlor	ND	0.010	ug/l	1	03/14/14 01:44	
Heptachlor epoxide	ND	0.010	ug/l	1	03/14/14 01:44	
Hexachlorobenzene	ND	0.010	ug/l	1	03/14/14 01:44	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	03/14/14 01:44	
Methoxychlor	ND	0.010	ug/l	1	03/14/14 01:44	
PCBs, Total	ND	0.50	ug/l	1	03/14/14 01:44	
Propachlor	ND	0.050	ug/l	1	03/14/14 01:44	
Toxaphene	ND	1.0	ug/l	1	03/14/14 01:44	
Trifluralin	ND	0.010	ug/l	1	03/14/14 01:44	
Surr: Decachlorobiphenyl	29 %	Conc:0.0277	70-130	%		S-GC
Surr: Tetrachloro-meta-xylene	117 %	Conc:0.112	70-130	%		



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Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:53

4C11005-01 CX-B2WQ Zone #1 (215-225 ft bgs)

Sampled: 03/08/14 16:00

Sampled By: Josh Soboleu

Matrix: Water

Sample Note: 12621

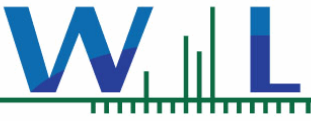
Chlorinated Pesticides and/or PCBs



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Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:53

QUALITY CONTROL SECTION



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Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:53

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

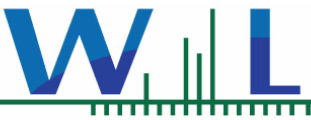
Batch W4C0833 - EPA 9056A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4C0833-BLK1)				Analyzed: 03/15/14 15:05						
Iodide	ND	10	ug/l							
LCS (W4C0833-BS1)				Analyzed: 03/15/14 15:05						
Iodide	40.2	10	ug/l	40.0		101	85-115			
Matrix Spike (W4C0833-MS1)				Source: 4C11006-01 Analyzed: 03/15/14 15:05						
Iodide	1090	250	ug/l	1000	ND	109	80-120			
Matrix Spike Dup (W4C0833-MSD1)				Source: 4C11006-01 Analyzed: 03/15/14 15:05						
Iodide	931	250	ug/l	1000	ND	93	80-120	15	20	

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4C0665 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4C0665-BLK1)				Analyzed: 03/14/14 00:12						
4,4'-DDD	ND	0.010	ug/l							
4,4'-DDE	ND	0.010	ug/l							
4,4'-DDT	ND	0.010	ug/l							
Aldrin	ND	0.010	ug/l							
alpha-BHC	ND	0.010	ug/l							
Aroclor 1016	ND	0.10	ug/l							
Aroclor 1221	ND	0.10	ug/l							
Aroclor 1232	ND	0.10	ug/l							
Aroclor 1242	ND	0.10	ug/l							
Aroclor 1248	ND	0.10	ug/l							
Aroclor 1254	ND	0.10	ug/l							
Aroclor 1260	ND	0.10	ug/l							
beta-BHC	ND	0.010	ug/l							
Chlordane (tech)	ND	0.10	ug/l							
Chlorothalonil	ND	0.050	ug/l							
delta-BHC	ND	0.010	ug/l							
Dieldrin	ND	0.010	ug/l							
Endosulfan I	ND	0.010	ug/l							
Endosulfan II	ND	0.010	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							
Endrin	ND	0.010	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.010	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.010	ug/l							
Hexachlorobenzene	ND	0.010	ug/l							
Hexachlorocyclopentadiene	ND	0.050	ug/l							
Methoxychlor	ND	0.010	ug/l							
PCBs, Total	ND	0.50	ug/l							



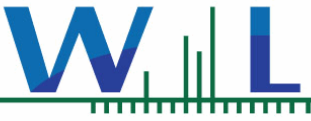
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Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:53

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4C0665 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4C0665-BLK1)										
Analyzed: 03/14/14 00:12										
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
<i>Surr: Decachlorobiphenyl</i>	0.108		ug/l	0.100		108	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.106		ug/l	0.100		106	70-130			
LCS (W4C0665-BS1)										
Analyzed: 03/14/14 00:43										
4,4'-DDD	0.0745	0.010	ug/l	0.100		75	55-142			
4,4'-DDE	0.0830	0.010	ug/l	0.100		83	49-129			
4,4'-DDT	0.0919	0.010	ug/l	0.100		92	54-160			
Aldrin	0.0782	0.010	ug/l	0.100		78	29-115			
alpha-BHC	0.0801	0.010	ug/l	0.100		80	59-131			
beta-BHC	0.0723	0.010	ug/l	0.100		72	63-136			
delta-BHC	0.0874	0.010	ug/l	0.100		87	59-137			
Dieldrin	0.0773	0.010	ug/l	0.100		77	59-135			
Endosulfan I	0.0659	0.010	ug/l	0.100		66	28-138			
Endosulfan II	0.0673	0.010	ug/l	0.100		67	53-133			
Endosulfan sulfate	0.0716	0.010	ug/l	0.100		72	58-155			
Endrin	0.0725	0.010	ug/l	0.100		72	57-148			
Endrin aldehyde	0.0706	0.010	ug/l	0.100		71	45-139			
gamma-BHC (Lindane)	0.0595	0.010	ug/l	0.100		60	59-129			
Heptachlor	0.0879	0.010	ug/l	0.100		88	42-136			
Heptachlor epoxide	0.0757	0.010	ug/l	0.100		76	59-134			
Methoxychlor	0.0727	0.010	ug/l	0.100		73	56-167			
<i>Surr: Decachlorobiphenyl</i>	0.0947		ug/l	0.100		95	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0986		ug/l	0.100		99	70-130			
LCS Dup (W4C0665-BSD1)										
Analyzed: 03/14/14 01:13										
4,4'-DDD	0.0865	0.010	ug/l	0.100		87	55-142	15	25	
4,4'-DDE	0.0904	0.010	ug/l	0.100		90	49-129	9	25	
4,4'-DDT	0.102	0.010	ug/l	0.100		102	54-160	10	25	
Aldrin	0.0841	0.010	ug/l	0.100		84	29-115	7	25	
alpha-BHC	0.0886	0.010	ug/l	0.100		89	59-131	10	25	
beta-BHC	0.0835	0.010	ug/l	0.100		84	63-136	14	25	
delta-BHC	0.0960	0.010	ug/l	0.100		96	59-137	9	25	
Dieldrin	0.0883	0.010	ug/l	0.100		88	59-135	13	25	
Endosulfan I	0.0704	0.010	ug/l	0.100		70	28-138	7	25	
Endosulfan II	0.0754	0.010	ug/l	0.100		75	53-133	11	25	
Endosulfan sulfate	0.0870	0.010	ug/l	0.100		87	58-155	19	25	
Endrin	0.0802	0.010	ug/l	0.100		80	57-148	10	25	
Endrin aldehyde	0.0736	0.010	ug/l	0.100		74	45-139	4	25	
gamma-BHC (Lindane)	0.0873	0.010	ug/l	0.100		87	59-129	38	25	Q-12
Heptachlor	0.0945	0.010	ug/l	0.100		95	42-136	7	25	
Heptachlor epoxide	0.0844	0.010	ug/l	0.100		84	59-134	11	25	
Methoxychlor	0.0923	0.010	ug/l	0.100		92	56-167	24	25	
<i>Surr: Decachlorobiphenyl</i>	0.105		ug/l	0.100		105	70-130			



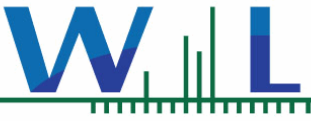
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Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:53

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4C0665 - EPA 508

Analyte	Reporting Result	Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W4C0665-BSD1)				Analyzed: 03/14/14 01:13						
<i>Surr: Tetrachloro-meta-xylene</i>	0.107		ug/l	0.100		107	70-130			



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Monterey CA, 93940

Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:53

Notes and Definitions

S-GC	Surrogate recovery outside of control limits due to a possible matrix effect . The data was accepted based on valid recovery of the remaining surrogate.
Q-12	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on the percent recoveries and/or other acceptable QC data.
M-02	Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Turbidity QC Summary (EPA 180.1)

Date Analyzed: 3/9/2014

	Value (NTU)	Result (NTU)	% Rec	Acceptance Criteria %Rec
IPC	1.00	0.97	97.0	95-105

Sample ID	Sample (NTU)	Sample Dup (NTU)	% RPD	Acceptance Criteria % RPD
AB12621	0.400	0.402	0.00	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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Specific Conductance QC Summary (SM 2510B)

Date Analyzed: 3/9/2014

	Value (umhos/cm)	Result (umhos/cm)	% Rec	Acceptance Criteria %Rec
IPC	1412	1413	100.1%	95-105

Sample ID	Sample (umhos/cm)	Sample Dup (umhos/cm)	% RPD	Acceptance Criteria % RPD
AB12621	36590	36770	0.5%	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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pH QC Summary (SM 4500 H+)

Date Analyzed: 3/9/2014

	Value (pH Units)	Result (pH Units)	% Rec	Acceptance Criteria %Rec
IPC	6.86	6.88	100.3	95-105

Sample ID	Sample (pH Units)	Sample Dup (pH Units)	% RPD	Acceptance Criteria % RPD
AB12621	7	7.1	1.4	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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Color QC Summary (SM 2120B)

Date Analyzed: 3/10/2014

	Value (Color Units)	Result (Color Units)	% Rec	Acceptance Criteria %Rec
IPC	5	5	100.0	95-105

Sample ID	Sample (Color Units)	Sample Dup (Color Units)	% RPD	Acceptance Criteria % RPD
AB12658	1	1	0.0	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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Ammonia by Electrode QC Summary (SM 4500-NH3)

Date: 3/11/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC (Low)	0.050	0.046	92	90-110
IPC (High)	0.500	0.494	98.8	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12237	0.014	0.500	0.486	0.499	94.46	97.06	2.6	85-120	10
AB12621	0.014	0.500	0.360	0.362	69.26	69.66	0.6	85-124	10

Note: The MS and MSD for the sample ID AB12621, does not meet the the acceptance criteria for the rec %. Data is accepted due IPC (Low) and IPC (High) rec %.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; IPC = Instrument Performance Check
 RPD = Relative Percent Difference; Rec = Recovery

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Alkalinity QC Summary (SM 2320B)

Date Analyzed: 3/13/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	40	41.1	102.75	95-105
IPC	40	38.5	96.25	95-105

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12682	253.1	256.7	1.4	10
AB12692	230.1	231.5	0.6	10
AB12765	292.9	292.3	0.2	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

EPA 200.7 QC

Batch # 20140313

Analyte/ WL	Range	IC	Prep	LCS	%Rec	LCS D	%Rec	%Diff	IC Verification			QCS (95-105%)		
		Blank	Blank	Value	85-115%	Value	85-115%		Value	Result	%Rec	Value	Result	%Rec
B 249.678	0.05-5ppm	0.01	0.00	1.00	100.4%	1.03	103.1%	2.7%	1	1.02	101.5%	1	0.98	97.8%
B 249.772	0.05-5ppm	0.01	0.01	1.01	100.7%	1.03	103.0%	2.3%	1	1.02	102.0%	1	0.99	98.6%
Ca 317.933	50-300ppm	-5.25	-5.24	49.3	98.5%	50.3	100.7%	2.2%	50	49.5	99.0%	50	48.7	97.4%
Ca 396.847	0.5-50ppm	-0.15	-0.14	49.8	99.7%	50.3	100.6%	0.9%	50	50.2	100.4%	50	48.8	97.6%
Cu 324.754	10ppb-100ppm	-8.02	-6.70	995	99.5%	1024	102.4%	2.8%	1000	1010	101.0%	1000	1000	100.0%
Cu 327.395	10ppb-100ppm	-3.00	-4.11	990	99.0%	1017	101.7%	2.7%	1000	1006	100.6%	1000	995	99.5%
Fe 238.204	10ppb-100ppm	-0.64	0.19	998	99.8%	1014	101.4%	1.6%	1000	1003	100.3%	1000	992	99.2%
Fe 259.940	10ppb-100ppm	0.30	-0.50	995	99.5%	1013	101.3%	1.8%	1000	1001	100.1%	1000	993	99.3%
K 766.491	0.5-750ppm	0.20	0.13	9.9	98.6%	10.0	100.4%	1.8%	10	10.0	100.5%	10	9.8	98.0%
Mg 202.582	50-1000ppm	-1.81	-1.83	50.2	100.4%	51.3	102.5%	2.2%	50	50.8	101.6%	50	49.7	99.4%
Mg 279.078	0.5-50ppm	0.04	0.02	48.9	97.8%	50.2	100.4%	2.6%	50	49.8	99.7%	50	49.0	97.9%
Mn 257.611	10ppb-11ppm	-4.82	-5.60	995	99.5%	1016	101.6%	2.1%	1000	1001	100.1%	1000	979	97.9%
Mn 260.568	10ppb-11ppm	-5.16	-5.50	993	99.3%	1012	101.2%	1.9%	1000	999	99.9%	1000	978	97.8%
Na 568.821	50-1000ppm	4.56	4.98	48.4	96.9%	48.9	97.8%	0.9%	50	48.0	95.9%	50	47.3	94.5%
Na 589.592	0.5-50ppm	0.25	0.17	49.6	99.1%	50.2	100.4%	1.3%	50	50.0	100.0%	50	48.6	97.3%
Si 251.611	0.5-200ppm	0.09	0.05	50.0	100.0%	50.9	101.8%	1.7%	50	50.6	101.3%	107	105.5	98.6%
Si 252.411	0.5-200ppm	0.08	0.02	49.7	99.3%	50.7	101.4%	2.1%	50	50.5	100.9%	107	105.3	98.4%

Matrix Spikes

Sample ID AB12549

Analyte/ WL	Sample Value	MS	%Rec	MSD	%Rec	%Diff	CCV (90-110%)			%Diff	CC
		Value	70-130%	Value	70-130%		Value	Result	%Rec	10%	Blank
B 249.678	0.06	1.03	96.3%	1.04	97.3%	1.0%	1	0.98	97.6%	3.9%	0.00
B 249.772	0.06	1.04	97.8%	1.04	97.7%	0.1%	1	0.99	98.8%	3.2%	0.00
Ca 317.933	57.4	109.5	104.1%	108.7	102.5%	0.7%	50	48.5	97.0%	2.1%	-5.27
Ca 396.847	55.3	91.0	71.3%	91.0	71.5%	0.1%	50	48.3	96.6%	3.8%	-0.17
Cu 324.754	341	1295	95.5%	1299	95.8%	0.3%	1000	980	98.0%	3.1%	-8.97
Cu 327.395	336	1289	95.4%	1291	95.5%	0.1%	1000	972	97.2%	3.4%	-2.96
Fe 238.204	22	999	97.7%	993	97.1%	0.6%	1000	975	97.5%	2.8%	-0.52
Fe 259.940	19	987	96.8%	987	96.7%	0.1%	1000	977	97.7%	2.5%	-1.73
K 766.491	3.5	13.2	96.5%	13.3	97.6%	0.9%	10	9.66	96.6%	3.9%	0.08

Mg 202.582	15.7	65.9	100.3%	66.0	100.5%	0.2%	50	49.5	99.0%	2.6%	-1.79
Mg 279.074	16.6	64.0	94.8%	63.8	94.4%	0.3%	50	48.3	96.7%	3.1%	0.01
Mn 257.610	-1	973	97.3%	968	96.9%	0.5%	1000	976	97.6%	2.5%	-5.26
Mn 260.568	0	974	97.4%	968	96.9%	0.5%	1000	975	97.5%	2.4%	-4.73
Na 568.821	58.9	103.5	89.2%	103.4	89.1%	0.0%	50	47.5	94.9%	1.1%	6.03
Na 589.592	57.8	104.7	93.6%	105.9	96.0%	1.1%	50	48.3	96.7%	3.4%	0.17
Si 251.611	27.3	75.5	96.4%	75.0	95.4%	0.7%	50	49.3	98.6%	2.7%	-0.04
Si 252.411	27.0	74.9	95.8%	74.3	94.8%	0.7%	50	48.8	97.5%	3.5%	-0.03

Monterey Bay Analytical Services

QC Summary for 200.8

Spiked Sample
ID AB12896 D

Date Analyzed
Monday, March 17, 2014 13:56:41

	Sample	Spiked	MS	MSD	MS-MSD	LFB	LFB	LFB-LFBD	Acceptance Criteria %			
	ug/L	ug/L	%Rec.	% Rec.	% RPD	% Rec	% Rec	% RPD	MS/MSD	RPD	LFB/LFBD	RPD
Lithium	149.9	50	98.6	95.0	3.71	99.39	105.79	6.24	70-130	20	85-115	20
Beryllium	0.1	50	94.0	93.0	1.09	100.99	104.29	3.21	70-130	20	85-115	20
Aluminum	151.1	50	96.8	98.1	1.38	104.19	103.71	0.46	70-130	20	85-115	20
Vanadium	1.0	50	111.9	110.1	1.57	101.78	96.36	5.47	70-130	20	85-115	20
Chromium	12.7	50	105.9	105.5	0.31	101.51	97.60	3.94	70-130	20	85-115	20
Iron 54	12.8	100	99.7	102.4	2.62	100.42	71.80	33.24	70-130	20	85-115	20
Manganese	67.1	50	100.3	101.3	0.98	99.43	95.41	4.13	70-130	20	85-115	20
Cobalt	1.9	50	97.9	98.7	0.79	102.10	96.35	5.79	70-130	20	85-115	20
Nickel	32.0	50	91.6	92.1	0.56	99.33	96.10	3.30	70-130	20	85-115	20
Copper	168.0	50	97.7	101.8	4.14	99.24	107.13	7.64	70-130	20	85-115	20
Zinc	383.0	50	118.1	105.7	11.02	98.68	119.20	18.84	70-130	20	85-115	20
Arsenic	60.4	50	102.0	107.2	4.91	100.54	108.37	7.49	70-130	20	85-115	20
Selenium	244.6	250	101.6	104.6	2.94	101.59	108.93	6.97	70-130	20	85-115	20
Strontium	9965.8	50	55.0	76.8	33.10	99.57	103.45	3.83	70-130	20	85-115	20
Molybdenum	4.9	50	108.7	110.4	1.56	99.16	95.38	3.90	70-130	20	85-115	20
Silver	0.1	50	86.6	90.7	4.63	100.66	101.33	0.67	70-130	20	85-115	20
Cadmium	-1.7	50	97.1	97.1	0.06	99.84	102.54	2.66	70-130	20	85-115	20
Antimony	0.2	50	100.6	102.4	1.74	100.15	96.78	3.42	70-130	20	85-115	20
Barium	90.2	50	91.2	93.7	2.68	100.03	91.30	9.13	70-130	20	85-115	20
Mercury	0.6	2.5	96.0	96.9	0.99	113.92	120.52	5.63	70-130	20	85-115	20
Thallium	0.1	50	94.6	97.6	3.14	102.41	105.48	2.95	70-130	20	85-115	20
Lead	-0.2	50	93.4	95.4	2.16	99.59	104.99	5.27	70-130	20	85-115	20
Uranium	5.9	50	103.7	105.3	1.57	100.26	107.96	7.39	70-130	20	85-115	20

MS = Matrix Spike MSD = Matrix Spike Duplicate; LFB = Laboratory Fortified Blank; LFBD = Laboratory Fortified Blank Duplicate RPD = Relative Percent Difference

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Kjehldahl Nitrogen QC Summary (SM 4500-NH3)

Date: 3/17/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	5.0	5.200	104	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12627	2.400	5.000	7.200	7.300	96	98	1.4	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

300.0 QC Summary

All units expressed in mg/L

	F	Cl	NO2-N	SO4	Br	NO3-N
	2	20	2	20	2	2
IPC	1.98	19.41	2.05	18.45	2.00	1.90
Recovery 90-110%	99.00	97.06	102.67	92.25	99.84	94.99
CCV1	2.00	19.52	2.05	18.49	1.98	1.90
Recovery 90-110%	99.80	97.60	102.37	92.45	99.21	95.21
RPD 10%	0.80	0.55	0.30	0.21	0.64	0.23
	F	Cl	NO2-N	SO4	Br	NO3-N
	2	20	2	20	2	2
AB12621D	0.13	130.27	0.01	16.75	0.38	0.01
AB12621+LFM	2.01	147.93	1.95	34.94	2.23	1.85
AB12621+LFMD	2.01	148.32	1.93	34.95	2.22	1.84
Average	2.01	148.13	1.94	34.94	2.23	1.85
Recovery 80-120%	94.00	89.32	96.52	90.99	92.41	91.87
RPD 10%	0.11	0.26	0.83	0.02	0.33	0.22

Cal Am Water Company
 Travis Peterson
 511 Pacific Lodge Road, Suite 100
 Pacific Grove, CA 93950

4 Justin Court Suite D, Monterey, CA 93940
 831.375.MBAS

montereybayanalytical@usa.net

ELAP Certification Number: 2385

Lab Number: AB12631

Collection Date/Time: 3/10/2014 10:00 Sample Collector: SOBOLEU, J
 Submittal Date/Time: 3/10/2014 12:30 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-B2WQ Zone#2

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	129		2		3/13/2014	LRH
Aluminum, Total	EPA200.8	ug/L	74	J	200	1000	3/17/2014	SM
Ammonia-N, Dissolved	SM4500NH3 D	mg/L	Not Detected		0.05		3/11/2014	LRH
Arsenic, Total	EPA200.8	ug/L	28		20	10	3/17/2014	SM
Barium, Dissolved	EPA200.8	ug/L	346		200		3/17/2014	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	157		10		3/14/2014	DH
Boron, Dissolved	EPA200.7	mg/L	0.86		0.5		3/13/2014	DC
Bromide, Dissolved	EPA300.0	mg/L	23		10		3/11/2014	DC
Calcium	EPA200.7	mg/L	1181		5		3/13/2014	DC
Calcium, Dissolved	EPA200.7	mg/L	1141		5		3/13/2014	DC
Carbamates by HPLC (EPA 531)	EPA531	ug/L	Not Detected	E			3/13/2014	BSK
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		3/14/2014	DH
Chloride, Dissolved	EPA300.0	mg/L	7408		100		3/11/2014	DC
Chlorinated Pesticides and PCB (EP	EPA508	ug/L	Not Detected	E			3/14/2014	WECK
Color, Apparent (Unfiltered)	SM2120B	Color Units	7		3	15	3/10/2014	LRH
Copper, Total	EPA200.8	ug/L	Not Detected		80	1300	3/17/2014	SM
DBCP & EDB	EPA504.1	ug/L	Not Detected	E			3/13/2014	BSK
Dioxin	EPA-5 1613B	pg/L	Not Detected	E			3/14/2014	CERES
Diquat (EPA 549)	EPA549	ug/L	Not Detected	E			3/14/2014	BSK
Dissolved Anions		Meq/L	226.8				3/18/2014	DH
Dissolved Cations		Meq/L	215.5				3/18/2014	DH
Endothall	EPA548.1	ug/L	Not Detected	E			3/13/2014	BSK
Fluoride, Dissolved	EPA300.0	mg/L	0.2		0.1		3/11/2014	DC
Glyphosate	EPA547	ug/L	Not Detected	E			3/12/2014	BSK
Hardness (as CaCO3)	SM2340B	mg/L	5486		10		3/17/2014	DH
Hydroxide	SM2320B	mg/L	Not Detected		5		3/14/2014	DH
Iodide	EPA9056M	ug/L	Not Detected	E	10		3/15/2014	WECK
Iron	EPA200.7	ug/L	238		100	300	3/13/2014	DC
Iron, Dissolved	EPA200.7	ug/L	148		100	300	3/13/2014	DC
Kjeldahl Nitrogen, Dissolved	SM4500-NH3 B,	mg/L	Not Detected		0.5		3/17/2014	HM
Lithium	EPA200.8	ug/L	75		20		3/17/2014	SM
Magnesium	EPA200.7	mg/L	616		5		3/13/2014	DC
Magnesium, Dissolved	EPA200.7	mg/L	605		5		3/13/2014	DC
Manganese, Dissolved	EPA200.7	ug/L	Not Detected		100	50	3/13/2014	DC
Manganese, Total	EPA200.7	ug/L	Not Detected		100	50	3/13/2014	DC
MBAS (Surfactants)	SM5540C	mg/L	Not Detected		0.05	0.50	3/10/2014	DC
Nitrate as NO3	EPA300.0	mg/L	2		1	45	3/11/2014	DC
Nitrate+Nitrite as N	EPA300.0	mg/L	0.6		0.1		3/11/2014	DC

Lab Number: AB12631

Collection Date/Time: 3/10/2014 10:00
Submittal Date/Time: 3/10/2014 12:30Sample Collector: SOBOLEU, J
Sample ID: GEOSCIENCE

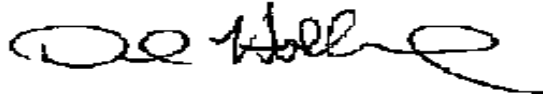
Coliform Designation:

Sample Description: CX-B2WQ Zone#2

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Nitrite as NO ₂ -N, Dissolved	EPA300.0	mg/L	0.2		0.1		3/11/2014	DC
Odor Threshold at 60 C	SM2150B	TON	2		1	3	3/10/2014	AS
o-Phosphate-P, Dissolved	Hach 8190	mg/L	Not Detected		0.1		3/14/2014	HC
pH (Field Test)	SM4500-H+B	pH	6.69				3/10/2014	JS
pH (Laboratory)	SM4500-H+B	pH (H)	7.4				3/10/2014	HM
Phenoxy Acid Herbicides (515.3)	EPA515.3	ug/L	Not Detected	E			3/14/2014	BSK
Phosphorus, Dissolved	HACH 8190	mg/L	Not Detected		0.03		3/14/2014	HC
Potassium	EPA200.7	mg/L	75		5		3/13/2014	DC
Potassium, Dissolved	EPA200.7	mg/L	73		5		3/13/2014	DC
QC Ratio TDS/SEC	Calculation		0.73				3/14/2014	DH
Reg. Org. Compounds (EPA 525)	EPA525	ug/L	Not Detected	E			3/16/2014	BSK
Silica as SiO ₂ , Dissolved	EPA200.7	mg/L	30		5		3/13/2014	DC
Sodium	EPA200.7	mg/L	2539		5		3/13/2014	DC
Sodium, Dissolved	EPA200.7	mg/L	2437		5		3/13/2014	DC
Specific Conductance (E.C)	SM2510B	umhos/cm	22060		1	900	3/11/2014	HM
Specific Conductance (E.C) (Field)	SM2510B	umhos/cm	21681		1		3/10/2014	JS
Strontium, Dissolved	EPA200.8	ug/L	8621		100		3/17/2014	SM
Sulfate	EPA300.0	mg/L	713		1	250	3/11/2014	DC
Temperature (Field)	SM2550	° C	18.3				3/10/2014	JS
Total Cations		Meq/L	222.0				3/18/2014	DH
Total Diss. Solids	SM2540C	mg/L	16200		10	500	3/13/2014	HM
Turbidity	EPA180.1	NTU	0.65		0.05	5.0	3/10/2014	LRH
Turbidity (Field)	EPA180.1	NTU	0.49		0.05		3/10/2014	JS
Volatile Org. Compounds (524)	EPA524	ug/L	Not Detected	E			3/12/2014	BSK
Zinc, Total	EPA200.8	ug/L	217		200	5000	3/17/2014	SM

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12631 Dissolved B2WQ Zone 2**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	2437	0.04350	106.01
Potassium	73	0.02558	1.87
Calcium	1141	0.04990	56.94
Magnesium	616	0.08229	50.69
NH3-N	0	0.07143	0.00
		SUM	215.50

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	129	0.02000	2.58
Sulfate	713	0.02082	14.84
Chloride	7408	0.02821	208.98
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0.6	0.07138	0.04
Phosphate-P	0.0	0.01031	0.00
Fluoride	0.2	0.05264	0.01
Bromide	23.0	0.01252	0.29
		SUM	226.75

ANION-CATION BALANCE: **-3** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	22060	
Cation Sum X 100	21550	98%
Anion Sum X 100	22675	103%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	14.5
Ca+Mg+Na	213.64
HCO3/Ca	0.05
dS/m	22.06
Value Table II	1.5
SAR adj	20.8

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12631 Total B2WQ Zone 2**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	2539	0.04350	110.45
Potassium	75	0.02558	1.92
Calcium	1181	0.04990	58.93
Magnesium	616	0.08229	50.69
NH3-N	0	0.07143	0.00
		SUM	221.99

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	129	0.02000	2.58
Sulfate	713	0.02082	14.84
Chloride	7408	0.02821	208.98
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0.6	0.07138	0.04
Phosphate-P	0.0	0.01031	0.00
Fluoride	0.2	0.05264	0.01
Bromide	23.0	0.01252	0.29
		SUM	226.75

ANION-CATION BALANCE: **-1** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	22060	
Cation Sum X 100	22199	101%
Anion Sum X 100	22675	103%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	14.9
Ca+Mg+Na	220.07
HCO3/Ca	0.04
dS/m	22.06
Value Table II	1.5
SAR adj	21.6

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Appendix G

A4C0833

3/17/2014

Invoice: A406489

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

RE: Report for A4C0833 Cal Am

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 3/11/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montieth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montieth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: Monterey Bay Analytical Report To: David Holland Project #: 12631 Received: 3/11/2014 - 10:45 Report Due: 3/18/2014	Invoice To: Monterey Bay Analytical Invoice Attn: David Holland Project PO#: -
--	---

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 2.2	COC/Labels Agree
	Received On Wet Ice
	Packing Material - Bubble Wrap
	Sample(s) were received in temperature range.
	Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.

Report Distribution

Recipient(s)	Report Format
David Holland	Final.rpt

Certificate of Analysis

Sample ID: A4C0833-01
Sampled By: Josh Soboleu
Sample Description: CX-B2WQ Zone # 2 // 12631

Sample Date - Time: 03/10/14 - 10:00
Matrix: Water
Sample Type: Grab

Field Data: Cond.=21681 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A403016	03/12/14	03/13/14	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A403016	03/12/14	03/13/14	
Surrogate: 1-Br-2-Nitrobenzene	EPA 504.1	101 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A403008	03/13/14	03/14/14	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A403008	03/13/14	03/14/14	
2,4-D	EPA 515.3	ND	10	ug/L	1	A403008	03/13/14	03/14/14	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A403008	03/13/14	03/14/14	
Dalapon	EPA 515.3	ND	10	ug/L	1	A403008	03/13/14	03/14/14	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A403008	03/13/14	03/14/14	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A403008	03/13/14	03/14/14	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A403008	03/13/14	03/14/14	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A403008	03/13/14	03/14/14	
Surrogate: DCPAA	EPA 515.3	97 %	<i>Acceptable range: 70-130 %</i>						
<u>Volatile Organics by GC-MS</u>									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A402993	03/12/14	03/12/14	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A402993	03/12/14	03/12/14	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A402993	03/12/14	03/12/14	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A402993	03/12/14	03/12/14	

Certificate of Analysis

Sample ID: A4C0833-01
Sampled By: Josh Soboleu
Sample Description: CX-B2WQ Zone # 2 // 12631

Sample Date - Time: 03/10/14 - 10:00

Matrix: Water

Sample Type: Grab

Field Data: Cond.=21681 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Acetone	EPA 524.2	ND	10	ug/L	1	A402993	03/12/14	03/12/14	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A402993	03/12/14	03/12/14	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	BS1.0, CV0.0
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A402993	03/12/14	03/12/14	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A402993	03/12/14	03/12/14	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	

Certificate of Analysis

Sample ID: A4C0833-01
Sampled By: Josh Soboleu
Sample Description: CX-B2WQ Zone # 2 // 12631

Sample Date - Time: 03/10/14 - 10:00
Matrix: Water
Sample Type: Grab

Field Data: Cond.=21681 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A402993	03/12/14	03/12/14	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A402993	03/12/14	03/12/14	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	98 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	102 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Prometryn	EPA 525.2	ND	2.0	ug/L	1	A403148	03/14/14	03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	102 %	<i>Acceptable range: 70-130 %</i>						
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A403148	03/14/14	03/16/14	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A403148	03/14/14	03/16/14	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A403148	03/14/14	03/16/14	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A403148	03/14/14	03/16/14	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A403148	03/14/14	03/16/14	BS1.0
Bromacil	EPA 525.2	ND	10	ug/L	1	A403148	03/14/14	03/16/14	
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A403148	03/14/14	03/16/14	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A403148	03/14/14	03/16/14	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A403148	03/14/14	03/16/14	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A403148	03/14/14	03/16/14	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A403148	03/14/14	03/16/14	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A403148	03/14/14	03/16/14	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A403148	03/14/14	03/16/14	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A403148	03/14/14	03/16/14	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A403148	03/14/14	03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	102 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A403040	03/12/14	03/13/14	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A403040	03/12/14	03/13/14	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A403040	03/12/14	03/13/14	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A403040	03/12/14	03/13/14	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A403040	03/12/14	03/13/14	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A403040	03/12/14	03/13/14	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A403040	03/12/14	03/13/14	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A403040	03/12/14	03/13/14	
<u>Carbamates by HPLC</u>									
Methiocarb	EPA 531.1	ND	2.0	ug/L	1	A403040	03/12/14	03/13/14	
Propoxur	EPA 531.1	ND	2.0	ug/L	1	A403040	03/12/14	03/13/14	

Certificate of Analysis

Sample ID: A4C0833-01
Sampled By: Josh Soboleu
Sample Description: CX-B2WQ Zone # 2 // 12631

Sample Date - Time: 03/10/14 - 10:00
Matrix: Water
Sample Type: Grab

Field Data: Cond.=21681 umho

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A403000	03/12/14	03/12/14	
Surrogate: AMPA	EPA 547	97 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A403056	03/12/14	03/13/14	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A403100	03/13/14	03/14/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A403016

Prepared: 03/12/2014

Prep Method: EPA 504.1

Analyst: PYA

Blank (A403016-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							03/13/14	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							03/13/14	
Surrogate: 1-Br-2-Nitrobenzene	2.3			2.3		102	70-130			03/13/14	

Blank Spike (A403016-BS1)

Dibromochloropropane (DBCP)	0.13	0.010	ug/L	0.12		103	70-130			03/13/14	
Ethylene Dibromide (EDB)	0.11	0.020	ug/L	0.12		85	70-130			03/13/14	
Surrogate: 1-Br-2-Nitrobenzene	2.3			2.3		102	70-130			03/13/14	

Blank Spike Dup (A403016-BSD1)

Dibromochloropropane (DBCP)	0.13	0.010	ug/L	0.12		103	70-130	0	20	03/13/14	
Ethylene Dibromide (EDB)	0.11	0.020	ug/L	0.12		91	70-130	6	20	03/13/14	
Surrogate: 1-Br-2-Nitrobenzene	2.3			2.3		99	70-130			03/13/14	

Matrix Spike (A403016-MS1), Source: A4C0705-09

Dibromochloropropane (DBCP)	0.28	0.010	ug/L	0.13	0.16	99	65-135			03/13/14	
Ethylene Dibromide (EDB)	0.11	0.020	ug/L	0.13	ND	84	65-135			03/13/14	
Surrogate: 1-Br-2-Nitrobenzene	2.3			2.3		100	70-130			03/13/14	

EPA 515.3 - Quality Control

Batch: A403008

Prepared: 03/13/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank (A403008-BLK1)

2,4,5-T	ND	1.0	ug/L							03/13/14	
2,4,5-TP (Silvex)	ND	1.0	ug/L							03/13/14	
2,4-D	ND	10	ug/L							03/13/14	
Bentazon	ND	2.0	ug/L							03/13/14	
Dalapon	ND	10	ug/L							03/13/14	
Dicamba	ND	1.5	ug/L							03/13/14	
Dinoseb	ND	2.0	ug/L							03/13/14	
Pentachlorophenol	ND	0.20	ug/L							03/13/14	
Picloram	ND	1.0	ug/L							03/13/14	
Surrogate: DCPAA	57			58		99	70-130			03/13/14	

Blank Spike (A403008-BS1)

2,4,5-T	3.6	1.0	ug/L	4.0		89	70-130			03/13/14	
2,4,5-TP (Silvex)	0.77	1.0	ug/L	0.80		96	70-130			03/13/14	
2,4-D	0.38	10	ug/L	0.40		94	70-130			03/13/14	
Bentazon	7.6	2.0	ug/L	8.0		95	70-130			03/13/14	
Dalapon	4.2	10	ug/L	4.0		104	70-130			03/13/14	
Dicamba	5.8	1.5	ug/L	6.0		97	70-130			03/13/14	
Dinoseb	0.73	2.0	ug/L	0.80		92	70-130			03/13/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16		93	70-130			03/13/14	
Picloram	0.36	1.0	ug/L	0.40		91	70-130			03/13/14	
Surrogate: DCPAA	58			58		99	70-130			03/13/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A403008

Prepared: 03/13/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A403008-BSD1)

2,4,5-T	3.5	1.0	ug/L	4.0		89	70-130	1	20	03/14/14	
2,4,5-TP (Silvex)	0.76	1.0	ug/L	0.80		95	70-130	1	20	03/14/14	
2,4-D	0.38	10	ug/L	0.40		94	70-130	0	20	03/14/14	
Bentazon	7.6	2.0	ug/L	8.0		95	70-130	1	20	03/14/14	
Dalapon	4.8	10	ug/L	4.0		121	70-130	15	20	03/14/14	
Dicamba	5.8	1.5	ug/L	6.0		97	70-130	0	20	03/14/14	
Dinoseb	0.77	2.0	ug/L	0.80		97	70-130	5	20	03/14/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16		95	70-130	2	20	03/14/14	
Picloram	0.36	1.0	ug/L	0.40		90	70-130	1	20	03/14/14	
Surrogate: DCPAA	57			58		99	70-130			03/14/14	

Matrix Spike (A403008-MS1), Source: A4C0587-01

2,4,5-T	5.0	1.0	ug/L	4.0	ND	118	70-130			03/13/14	
2,4,5-TP (Silvex)	0.83	1.0	ug/L	0.80	ND	104	70-130			03/13/14	
2,4-D	0.47	10	ug/L	0.40	ND	119	70-130			03/13/14	
Bentazon	8.4	2.0	ug/L	8.0	ND	105	70-130			03/13/14	
Dalapon	7.8	10	ug/L	4.0	ND	107	70-130			03/13/14	
Dicamba	6.4	1.5	ug/L	6.0	ND	106	70-130			03/13/14	
Dinoseb	0.86	2.0	ug/L	0.80	ND	107	70-130			03/13/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16	ND	97	70-130			03/13/14	
Picloram	0.41	1.0	ug/L	0.40	ND	104	70-130			03/13/14	
Surrogate: DCPAA	55			58		94	70-130			03/13/14	

Matrix Spike Dup (A403008-MSD1), Source: A4C0587-01

2,4,5-T	5.0	1.0	ug/L	4.0	ND	118	70-130	0	20	03/14/14	
2,4,5-TP (Silvex)	0.83	1.0	ug/L	0.80	ND	104	70-130	0	20	03/14/14	
2,4-D	0.47	10	ug/L	0.40	ND	117	70-130	2	20	03/14/14	
Bentazon	8.4	2.0	ug/L	8.0	ND	105	70-130	0	20	03/14/14	
Dalapon	7.9	10	ug/L	4.0	ND	110	70-130	2	20	03/14/14	
Dicamba	6.4	1.5	ug/L	6.0	ND	106	70-130	0	20	03/14/14	
Dinoseb	0.86	2.0	ug/L	0.80	ND	107	70-130	0	20	03/14/14	
Pentachlorophenol	0.16	0.20	ug/L	0.16	ND	97	70-130	0	20	03/14/14	
Picloram	0.42	1.0	ug/L	0.40	ND	105	70-130	2	20	03/14/14	
Surrogate: DCPAA	55			58		95	70-130			03/14/14	

EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402993-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							03/12/14	
1,1,1-Trichloroethane	ND	0.50	ug/L							03/12/14	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							03/12/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							03/12/14	
1,1,2-Trichloroethane	ND	0.50	ug/L							03/12/14	
1,1-Dichloroethane	ND	0.50	ug/L							03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402993-BLK1)

1,1-Dichloroethene	ND	0.50	ug/L							03/12/14	
1,1-Dichloropropene	ND	0.50	ug/L							03/12/14	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							03/12/14	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							03/12/14	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							03/12/14	
1,2-Dichlorobenzene	ND	0.50	ug/L							03/12/14	
1,2-Dichloroethane	ND	0.50	ug/L							03/12/14	
1,2-Dichloropropane	ND	0.50	ug/L							03/12/14	
1,3,5-Trimethylbenzene	ND	0.50	ug/L							03/12/14	
1,3-Dichlorobenzene	ND	0.50	ug/L							03/12/14	
1,3-Dichloropropane	ND	0.50	ug/L							03/12/14	
1,4-Dichlorobenzene	ND	0.50	ug/L							03/12/14	
2,2-Dichloropropane	ND	0.50	ug/L							03/12/14	
2-Butanone	ND	5.0	ug/L							03/12/14	
2-Chlorotoluene	ND	0.50	ug/L							03/12/14	
2-Hexanone	ND	10	ug/L							03/12/14	
4-Chlorotoluene	ND	0.50	ug/L							03/12/14	
4-Methyl-2-pentanone	ND	5.0	ug/L							03/12/14	
Acetone	ND	10	ug/L							03/12/14	
Benzene	ND	0.50	ug/L							03/12/14	
Bromobenzene	ND	0.50	ug/L							03/12/14	
Bromochloromethane	ND	0.50	ug/L							03/12/14	
Bromodichloromethane	ND	0.50	ug/L							03/12/14	
Bromoform	ND	0.50	ug/L							03/12/14	
Bromomethane	ND	0.50	ug/L							03/12/14	
Carbon Tetrachloride	ND	0.50	ug/L							03/12/14	
Chlorobenzene	ND	0.50	ug/L							03/12/14	
Chloroethane	ND	0.50	ug/L							03/12/14	
Chloroform	ND	0.50	ug/L							03/12/14	
Chloromethane	ND	0.50	ug/L							03/12/14	
cis-1,2-Dichloroethene	ND	0.50	ug/L							03/12/14	
cis-1,3-Dichloropropene	ND	0.50	ug/L							03/12/14	
Dibromochloromethane	ND	0.50	ug/L							03/12/14	
Dibromomethane	ND	0.50	ug/L							03/12/14	
Dichlorodifluoromethane	ND	0.50	ug/L							03/12/14	
Dichloromethane	ND	0.50	ug/L							03/12/14	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							03/12/14	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							03/12/14	
Ethylbenzene	ND	0.50	ug/L							03/12/14	
Hexachlorobutadiene	ND	0.50	ug/L							03/12/14	
Isopropylbenzene	ND	0.50	ug/L							03/12/14	
m,p-Xylenes	ND	0.50	ug/L							03/12/14	
Methyl-t-butyl ether	ND	0.50	ug/L							03/12/14	
Naphthalene	ND	0.50	ug/L							03/12/14	
n-Butylbenzene	ND	0.50	ug/L							03/12/14	
n-Propylbenzene	ND	0.50	ug/L							03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A402993-BLK1)

o-Xylene	ND	0.50	ug/L							03/12/14	
p-Isopropyltoluene	ND	0.50	ug/L							03/12/14	
sec-Butylbenzene	ND	0.50	ug/L							03/12/14	
Styrene	ND	0.50	ug/L							03/12/14	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							03/12/14	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							03/12/14	
tert-Butylbenzene	ND	0.50	ug/L							03/12/14	
Tetrachloroethene (PCE)	ND	0.50	ug/L							03/12/14	
Toluene	ND	0.50	ug/L							03/12/14	
trans-1,2-Dichloroethene	ND	0.50	ug/L							03/12/14	
trans-1,3-Dichloropropene	ND	0.50	ug/L							03/12/14	
Trichloroethene (TCE)	ND	0.50	ug/L							03/12/14	
Trichlorofluoromethane	ND	5.0	ug/L							03/12/14	
Vinyl Chloride	ND	0.50	ug/L							03/12/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		97	70-130			03/12/14	
Surrogate: Bromofluorobenzene	51			50		101	70-130			03/12/14	

Blank Spike (A402993-BS1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		101	70-130			03/12/14	
1,1,1-Trichloroethane	10	0.50	ug/L	10		102	70-130			03/12/14	
1,1,2,2-Tetrachloroethane	10	0.50	ug/L	10		102	70-130			03/12/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	10	10	ug/L	10		104	70-130			03/12/14	
1,1,2-Trichloroethane	10	0.50	ug/L	10		100	70-130			03/12/14	
1,1-Dichloroethane	10	0.50	ug/L	10		102	70-130			03/12/14	
1,1-Dichloroethene	10	0.50	ug/L	10		103	70-130			03/12/14	
1,1-Dichloropropene	10	0.50	ug/L	10		102	70-130			03/12/14	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		100	70-130			03/12/14	
1,2,4-Trichlorobenzene	9.9	0.50	ug/L	10		99	70-130			03/12/14	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
1,2-Dichlorobenzene	10	0.50	ug/L	10		100	70-130			03/12/14	
1,2-Dichloroethane	10	0.50	ug/L	10		101	70-130			03/12/14	
1,2-Dichloropropane	10	0.50	ug/L	10		101	70-130			03/12/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		111	70-130			03/12/14	
1,3-Dichlorobenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
1,3-Dichloropropane	10	0.50	ug/L	10		100	70-130			03/12/14	
1,4-Dichlorobenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
2,2-Dichloropropane	10	0.50	ug/L	10		102	70-130			03/12/14	
2-Butanone	11	5.0	ug/L	10		114	70-130			03/12/14	
2-Chlorotoluene	10	0.50	ug/L	10		101	70-130			03/12/14	
2-Hexanone	10	10	ug/L	10		103	70-130			03/12/14	
4-Chlorotoluene	10	0.50	ug/L	10		102	70-130			03/12/14	
4-Methyl-2-pentanone	10	5.0	ug/L	10		102	70-130			03/12/14	
Acetone	11	10	ug/L	10		109	70-130			03/12/14	
Benzene	10	0.50	ug/L	10		101	70-130			03/12/14	
Bromobenzene	9.9	0.50	ug/L	10		99	70-130			03/12/14	
Bromochloromethane	9.9	0.50	ug/L	10		99	70-130			03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A402993-BS1)

Bromodichloromethane	10	0.50	ug/L	10		102	70-130			03/12/14	
Bromoform	9.6	0.50	ug/L	10		96	70-130			03/12/14	
Bromomethane	8.0	0.50	ug/L	10		80	70-130			03/12/14	
Carbon Tetrachloride	10	0.50	ug/L	10		104	70-130			03/12/14	
Chlorobenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
Chloroethane	10	0.50	ug/L	10		102	70-130			03/12/14	
Chloroform	10	0.50	ug/L	10		102	70-130			03/12/14	
Chloromethane	9.9	0.50	ug/L	10		99	70-130			03/12/14	
cis-1,2-Dichloroethene	10	0.50	ug/L	10		101	70-130			03/12/14	
cis-1,3-Dichloropropene	9.7	0.50	ug/L	10		97	70-130			03/12/14	
Dibromochloromethane	10	0.50	ug/L	10		100	70-130			03/12/14	
Dibromomethane	9.9	0.50	ug/L	10		99	70-130			03/12/14	
Dichlorodifluoromethane	10	0.50	ug/L	10		103	70-130			03/12/14	
Dichloromethane	10	0.50	ug/L	10		102	70-130			03/12/14	
Di-isopropyl ether (DIPE)	10	3.0	ug/L	10		101	70-130			03/12/14	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		100	70-130			03/12/14	
Ethylbenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
Hexachlorobutadiene	10	0.50	ug/L	10		101	70-130			03/12/14	
Isopropylbenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
m,p-Xylenes	20	0.50	ug/L	20		102	70-130			03/12/14	
Methyl-t-butyl ether	20	0.50	ug/L	20		100	70-130			03/12/14	
Naphthalene	10	0.50	ug/L	10		100	70-130			03/12/14	
n-Butylbenzene	10	0.50	ug/L	10		100	70-130			03/12/14	
n-Propylbenzene	10	0.50	ug/L	10		102	70-130			03/12/14	
o-Xylene	10	0.50	ug/L	10		101	70-130			03/12/14	
p-Isopropyltoluene	10	0.50	ug/L	10		101	70-130			03/12/14	
sec-Butylbenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
Styrene	15	0.50	ug/L	10		147	70-130			03/12/14	BS High
tert-Amyl Methyl Ether (TAME)	10	3.0	ug/L	10		103	70-130			03/12/14	
tert-Butyl alcohol (TBA)	10	2.0	ug/L	10		104	70-130			03/12/14	
tert-Butylbenzene	10	0.50	ug/L	10		101	70-130			03/12/14	
Tetrachloroethene (PCE)	10	0.50	ug/L	10		102	70-130			03/12/14	
Toluene	10	0.50	ug/L	10		101	70-130			03/12/14	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		102	70-130			03/12/14	
trans-1,3-Dichloropropene	9.7	0.50	ug/L	10		97	70-130			03/12/14	
Trichloroethene (TCE)	10	0.50	ug/L	10		101	70-130			03/12/14	
Trichlorofluoromethane	10	5.0	ug/L	10		105	70-130			03/12/14	
Vinyl Chloride	10	0.50	ug/L	10		102	70-130			03/12/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.1			5.0		103	70-130			03/12/14	
Surrogate: Bromofluorobenzene	51			50		102	70-130			03/12/14	

Blank Spike Dup (A402993-BSD1)

1,1,1,2-Tetrachloroethane	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,1,1-Trichloroethane	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
1,1,2,2-Tetrachloroethane	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	10	10	ug/L	10		100	70-130	3	30	03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402993-BSD1)

1,1,2-Trichloroethane	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,1-Dichloroethane	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,1-Dichloroethene	9.8	0.50	ug/L	10		98	70-130	5	30	03/12/14	
1,1-Dichloropropene	9.8	0.50	ug/L	10		98	70-130	5	30	03/12/14	
1,2,3-Trichlorobenzene	9.7	0.50	ug/L	10		97	70-130	2	30	03/12/14	
1,2,4-Trichlorobenzene	9.6	0.50	ug/L	10		96	70-130	3	30	03/12/14	
1,2,4-Trimethylbenzene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,2-Dichlorobenzene	9.8	0.50	ug/L	10		98	70-130	2	30	03/12/14	
1,2-Dichloroethane	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,2-Dichloropropane	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		107	70-130	4	30	03/12/14	
1,3-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130	3	30	03/12/14	
1,3-Dichloropropane	9.8	0.50	ug/L	10		98	70-130	2	30	03/12/14	
1,4-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130	3	30	03/12/14	
2,2-Dichloropropane	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
2-Butanone	10	5.0	ug/L	10		101	70-130	12	30	03/12/14	
2-Chlorotoluene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
2-Hexanone	9.4	10	ug/L	10		94	70-130	9	30	03/12/14	
4-Chlorotoluene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
4-Methyl-2-pentanone	9.4	5.0	ug/L	10		94	70-130	9	30	03/12/14	
Acetone	9.5	10	ug/L	10		95	70-130	14	30	03/12/14	
Benzene	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
Bromobenzene	9.6	0.50	ug/L	10		96	70-130	3	30	03/12/14	
Bromochloromethane	9.8	0.50	ug/L	10		98	70-130	1	30	03/12/14	
Bromodichloromethane	9.9	0.50	ug/L	10		99	70-130	2	30	03/12/14	
Bromoform	9.4	0.50	ug/L	10		94	70-130	3	30	03/12/14	
Bromomethane	8.7	0.50	ug/L	10		87	70-130	9	30	03/12/14	
Carbon Tetrachloride	10	0.50	ug/L	10		100	70-130	4	30	03/12/14	
Chlorobenzene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
Chloroethane	9.8	0.50	ug/L	10		98	70-130	5	30	03/12/14	
Chloroform	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
Chloromethane	9.0	0.50	ug/L	10		90	70-130	9	30	03/12/14	
cis-1,2-Dichloroethene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
cis-1,3-Dichloropropene	9.5	0.50	ug/L	10		95	70-130	2	30	03/12/14	
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130	2	30	03/12/14	
Dibromomethane	9.8	0.50	ug/L	10		98	70-130	2	30	03/12/14	
Dichlorodifluoromethane	9.8	0.50	ug/L	10		98	70-130	5	30	03/12/14	
Dichloromethane	9.9	0.50	ug/L	10		99	70-130	3	30	03/12/14	
Di-isopropyl ether (DIPE)	9.7	3.0	ug/L	10		97	70-130	3	30	03/12/14	
Ethyl tert-Butyl Ether (ETBE)	9.7	0.50	ug/L	10		97	70-130	3	30	03/12/14	
Ethylbenzene	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
Hexachlorobutadiene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
Isopropylbenzene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
m,p-Xylenes	20	0.50	ug/L	20		98	70-130	4	30	03/12/14	
Methyl-t-butyl ether	20	0.50	ug/L	20		98	70-130	2	30	03/12/14	
Naphthalene	9.6	0.50	ug/L	10		96	70-130	4	30	03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A402993

Prepared: 03/12/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A402993-BSD1)

n-Butylbenzene	9.6	0.50	ug/L	10		96	70-130	4	30	03/12/14	
n-Propylbenzene	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
o-Xylene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
p-Isopropyltoluene	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
sec-Butylbenzene	9.8	0.50	ug/L	10		98	70-130	3	30	03/12/14	
Styrene	14	0.50	ug/L	10		144	70-130	2	30	03/12/14	BS High
tert-Amyl Methyl Ether (TAME)	10	3.0	ug/L	10		100	70-130	3	30	03/12/14	
tert-Butyl alcohol (TBA)	9.2	2.0	ug/L	10		92	70-130	13	30	03/12/14	
tert-Butylbenzene	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
Tetrachloroethene (PCE)	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
Toluene	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
trans-1,2-Dichloroethene	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
trans-1,3-Dichloropropene	9.5	0.50	ug/L	10		95	70-130	2	30	03/12/14	
Trichloroethene (TCE)	9.7	0.50	ug/L	10		97	70-130	4	30	03/12/14	
Trichlorofluoromethane	10	5.0	ug/L	10		101	70-130	4	30	03/12/14	
Vinyl Chloride	9.8	0.50	ug/L	10		98	70-130	4	30	03/12/14	
Surrogate: 1,2-Dichlorobenzene-d4	5.1			5.0		103	70-130			03/12/14	
Surrogate: Bromofluorobenzene	51			50		102	70-130			03/12/14	

EPA 525.2 - Quality Control

Batch: A403148

Prepared: 03/14/2014

Prep Method: EPA 525.2

Analyst: GAK

Blank (A403148-BLK1)

Alachlor	ND	1.0	ug/L							03/16/14	
Atrazine	ND	0.50	ug/L							03/16/14	
Benzo(a)pyrene	ND	0.10	ug/L							03/16/14	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							03/16/14	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							03/16/14	
Bromacil	ND	10	ug/L							03/16/14	
Butachlor	ND	0.38	ug/L							03/16/14	
Diazinon	ND	0.25	ug/L							03/16/14	
Dimethoate	ND	10	ug/L							03/16/14	
Metolachlor	ND	0.50	ug/L							03/16/14	
Metribuzin	ND	0.50	ug/L							03/16/14	
Molinate	ND	2.0	ug/L							03/16/14	
Prometryn	ND	2.0	ug/L							03/16/14	
Propachlor	ND	0.50	ug/L							03/16/14	
Simazine	ND	1.0	ug/L							03/16/14	
Thiobencarb	ND	1.0	ug/L							03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.8			5.0		117	70-130			03/16/14	

Blank Spike (A403148-BS1)

Alachlor	0.51	1.0	ug/L	0.51		100	70-130			03/16/14	
Atrazine	0.53	0.50	ug/L	0.51		103	70-130			03/16/14	
Benzo(a)pyrene	0.093	0.10	ug/L	0.10		90	70-130			03/16/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A403148

Prepared: 03/14/2014

Prep Method: EPA 525.2

Analyst: GAK

Blank Spike (A403148-BS1)

Bis(2-ethylhexyl) adipate	3.3	3.0	ug/L	3.1		106	70-130			03/16/14	
Bis(2-ethylhexyl) phthalate	4.2	3.0	ug/L	3.1		138	70-130			03/16/14	BS High
Bromacil	2.6	10	ug/L	2.1		126	70-130			03/16/14	
Butachlor	1.4	0.38	ug/L	1.3		106	70-130			03/16/14	
Diazinon	0.047	0.25	ug/L	0.051		92	70-130			03/16/14	
Dimethoate	0.57	10	ug/L	0.51		111	70-130			03/16/14	
Metolachlor	2.8	0.50	ug/L	2.6		107	70-130			03/16/14	
Metribuzin	2.9	0.50	ug/L	2.6		114	70-130			03/16/14	
Molinate	2.9	2.0	ug/L	2.6		112	70-130			03/16/14	
Prometryn	0.63	0.50	ug/L	0.51		123	70-130			03/16/14	
Propachlor	3.0	0.50	ug/L	2.6		116	70-130			03/16/14	
Simazine	0.39	1.0	ug/L	0.36		109	70-130			03/16/14	
Thiobencarb	0.59	1.0	ug/L	0.51		114	70-130			03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.5			5.1		107	70-130			03/16/14	

Blank Spike Dup (A403148-BSD1)

Alachlor	0.54	1.0	ug/L	0.54		100	70-130	5	30	03/16/14	
Atrazine	0.58	0.50	ug/L	0.54		108	70-130	9	30	03/16/14	
Benzo(a)pyrene	0.11	0.10	ug/L	0.11		100	70-130	15	30	03/16/14	
Bis(2-ethylhexyl) adipate	3.5	3.0	ug/L	3.2		109	70-130	7	30	03/16/14	
Bis(2-ethylhexyl) phthalate	4.8	3.0	ug/L	3.2		148	70-130	12	30	03/16/14	BS High
Bromacil	2.7	10	ug/L	2.1		124	70-130	3	30	03/16/14	
Butachlor	1.4	0.38	ug/L	1.3		108	70-130	6	30	03/16/14	
Diazinon	0.057	0.25	ug/L	0.054		106	70-130	18	30	03/16/14	
Dimethoate	0.56	10	ug/L	0.54		104	70-130	3	30	03/16/14	
Metolachlor	2.8	0.50	ug/L	2.7		104	70-130	1	30	03/16/14	
Metribuzin	3.1	0.50	ug/L	2.7		114	70-130	4	30	03/16/14	
Molinate	3.2	2.0	ug/L	2.7		118	70-130	9	30	03/16/14	
Prometryn	0.65	0.50	ug/L	0.54		121	70-130	3	30	03/16/14	
Propachlor	3.2	0.50	ug/L	2.7		119	70-130	7	30	03/16/14	
Simazine	0.41	1.0	ug/L	0.38		110	70-130	5	30	03/16/14	
Thiobencarb	0.63	1.0	ug/L	0.54		117	70-130	7	30	03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.7			5.4		107	70-130			03/16/14	

Matrix Spike (A403148-MS1), Source: A4C0755-02

Alachlor	0.52	1.0	ug/L	0.52	ND	99	70-130			03/16/14	
Atrazine	0.52	0.50	ug/L	0.52	ND	99	70-130			03/16/14	
Benzo(a)pyrene	0.13	0.10	ug/L	0.10	ND	95	70-130			03/16/14	
Bis(2-ethylhexyl) adipate	3.4	3.0	ug/L	3.1	ND	109	70-130			03/16/14	
Bis(2-ethylhexyl) phthalate	4.1	3.0	ug/L	3.1	ND	110	70-130			03/16/14	
Bromacil	2.5	10	ug/L	2.1	ND	122	70-130			03/16/14	
Butachlor	1.4	0.38	ug/L	1.3	ND	105	70-130			03/16/14	
Diazinon	0.055	0.25	ug/L	0.052	ND	106	70-130			03/16/14	
Dimethoate	0.59	10	ug/L	0.52	ND	113	70-130			03/16/14	
Metolachlor	2.7	0.50	ug/L	2.6	ND	103	70-130			03/16/14	
Metribuzin	2.7	0.50	ug/L	2.6	ND	103	70-130			03/16/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A403148

Prepared: 03/14/2014

Prep Method: EPA 525.2

Analyst: GAK

Matrix Spike (A403148-MS1), Source: A4C0755-02

Molinate	2.9	2.0	ug/L	2.6	ND	110	70-130			03/16/14	
Prometryn	0.53	0.50	ug/L	0.52	ND	101	70-130			03/16/14	
Propachlor	2.9	0.50	ug/L	2.6	ND	111	70-130			03/16/14	
Simazine	0.34	1.0	ug/L	0.36	ND	93	70-130			03/16/14	
Thiobencarb	0.55	1.0	ug/L	0.52	ND	105	70-130			03/16/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.6			5.2		108	70-130			03/16/14	

EPA 531.1 - Quality Control

Batch: A403040

Prepared: 03/12/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank (A403040-BLK1)

3-Hydroxycarbofuran	ND	3.0	ug/L							03/12/14	
Aldicarb	ND	3.0	ug/L							03/12/14	
Aldicarb Sulfone	ND	2.0	ug/L							03/12/14	
Aldicarb Sulfoxide	ND	3.0	ug/L							03/12/14	
Carbaryl	ND	5.0	ug/L							03/12/14	
Carbofuran	ND	5.0	ug/L							03/12/14	
Methiocarb	ND	2.0	ug/L							03/12/14	
Methomyl	ND	2.0	ug/L							03/12/14	
Oxamyl	ND	20	ug/L							03/12/14	
Propoxur	ND	2.0	ug/L							03/12/14	

Blank Spike (A403040-BS1)

3-Hydroxycarbofuran	4.2	3.0	ug/L	4.0		106	80-120			03/12/14	
Aldicarb	4.1	3.0	ug/L	4.0		103	80-120			03/12/14	
Aldicarb Sulfone	4.3	2.0	ug/L	4.0		107	80-120			03/12/14	
Aldicarb Sulfoxide	4.3	3.0	ug/L	4.0		106	80-120			03/12/14	
Carbaryl	4.2	5.0	ug/L	4.0		104	80-120			03/12/14	
Carbofuran	4.2	5.0	ug/L	4.0		105	80-120			03/12/14	
Methiocarb	4.5	2.0	ug/L	4.0		112	80-120			03/12/14	
Methomyl	4.4	2.0	ug/L	4.0		109	80-120			03/12/14	
Oxamyl	4.2	20	ug/L	4.0		106	80-120			03/12/14	
Propoxur	4.3	2.0	ug/L	4.0		107	80-120			03/12/14	

Blank Spike Dup (A403040-BSD1)

3-Hydroxycarbofuran	4.3	3.0	ug/L	4.0		108	80-120	2	20	03/12/14	
Aldicarb	4.1	3.0	ug/L	4.0		103	80-120	0	20	03/12/14	
Aldicarb Sulfone	4.3	2.0	ug/L	4.0		107	80-120	1	20	03/12/14	
Aldicarb Sulfoxide	4.3	3.0	ug/L	4.0		107	80-120	0	20	03/12/14	
Carbaryl	4.2	5.0	ug/L	4.0		106	80-120	1	20	03/12/14	
Carbofuran	4.2	5.0	ug/L	4.0		105	80-120	0	20	03/12/14	
Methiocarb	4.2	2.0	ug/L	4.0		104	80-120	7	20	03/12/14	
Methomyl	4.3	2.0	ug/L	4.0		107	80-120	2	20	03/12/14	
Oxamyl	4.2	20	ug/L	4.0		106	80-120	0	20	03/12/14	
Propoxur	4.1	2.0	ug/L	4.0		102	80-120	6	20	03/12/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A403040

Prepared: 03/12/2014

Prep Method: EPA 531.1

Analyst: AAR

Matrix Spike (A403040-MS1), Source: A4C0825-01

3-Hydroxycarbofuran	4.1	3.0	ug/L	4.0	ND	103	65-135			03/13/14	
Aldicarb	3.9	3.0	ug/L	4.0	ND	99	65-135			03/13/14	
Aldicarb Sulfone	4.1	2.0	ug/L	4.0	ND	102	65-135			03/13/14	
Aldicarb Sulfoxide	4.1	3.0	ug/L	4.0	ND	103	65-135			03/13/14	
Carbaryl	4.1	5.0	ug/L	4.0	ND	103	65-135			03/13/14	
Carbofuran	4.1	5.0	ug/L	4.0	ND	101	65-135			03/13/14	
Methiocarb	4.1	2.0	ug/L	4.0	ND	96	65-135			03/13/14	
Methomyl	4.2	2.0	ug/L	4.0	ND	105	65-135			03/13/14	
Oxamyl	4.1	20	ug/L	4.0	ND	102	65-135			03/13/14	
Propoxur	4.0	2.0	ug/L	4.0	ND	101	65-135			03/13/14	

EPA 547 - Quality Control

Batch: A403000

Prepared: 03/12/2014

Prep Method: EPA 547

Analyst: RJB

Blank (A403000-BLK1)

Glyphosate	ND	25	ug/L							03/12/14	
Surrogate: AMPA	110			100		113	70-130			03/12/14	

Blank Spike (A403000-BS1)

Glyphosate	100	25	ug/L	100		105	70-130			03/12/14	
Surrogate: AMPA	110			100		107	70-130			03/12/14	

Blank Spike Dup (A403000-BSD1)

Glyphosate	120	25	ug/L	100		118	70-130	12	30	03/12/14	
Surrogate: AMPA	120			100		119	70-130			03/12/14	

Matrix Spike (A403000-MS1), Source: A4C0880-01

Glyphosate	120	25	ug/L	100	ND	115	70-130			03/12/14	
Surrogate: AMPA	130			100		125	70-130			03/12/14	

Matrix Spike Dup (A403000-MSD1), Source: A4C0880-01

Glyphosate	110	25	ug/L	100	ND	109	70-130	5	30	03/12/14	
Surrogate: AMPA	120			100		117	70-130			03/12/14	

EPA 548.1 - Quality Control

Batch: A403056

Prepared: 03/12/2014

Prep Method: EPA 548.1

Analyst: GAK

Blank (A403056-BLK1)

Endothall	ND	45	ug/L							03/13/14	
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Blank Spike (A403056-BS1)

Endothall	17	45	ug/L	20		85	60-111			03/13/14	
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Blank Spike Dup (A403056-BSD1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 548.1 - Quality Control

Batch: A403056

Prepared: 03/12/2014

Prep Method: EPA 548.1

Analyst: GAK

Blank Spike Dup (A403056-BSD1)

Endothall	14	45	ug/L	20		71	60-111	18	46	03/13/14	
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Matrix Spike (A403056-MS1), Source: A4C0610-01

Endothall	ND	45	ug/L	20	ND	0	10-122			03/13/14	MS1.0 Low
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EPA 549.2 - Quality Control

Batch: A403100

Prepared: 03/13/2014

Prep Method: EPA 549.2

Analyst: PYA

Blank (A403100-BLK1)

Diquat	ND	4.0	ug/L							03/14/14	
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Blank Spike (A403100-BS1)

Diquat	3.3	4.0	ug/L	4.0		83	70-130			03/14/14	
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Blank Spike Dup (A403100-BSD1)

Diquat	3.2	4.0	ug/L	4.0		79	70-130	5	30	03/14/14	
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Matrix Spike (A403100-MS1), Source: A4C0537-01

Diquat	3.0	4.0	ug/L	4.0	ND	75	70-130			03/14/14	
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Matrix Spike (A403100-MS2), Source: A4C0537-02

Diquat	3.4	4.0	ug/L	4.0	ND	85	70-130			03/14/14	
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Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of Oregon - NELAP	4021	State of Washington	C997
State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA

BSK is not accredited under the NELAC program for the following parameters:

A4C0833



Monterey Bay Analytical

Monte6227



03112014

Turnaround: Standard
Due Date: 3/18/2014

BSK ANALYTICAL LABORATORIES

1414 Stanislaus Street, Fresno, CA 93706-1623
 (559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

A4C0833
 Monte6227

03/11/2014



5

* Required Fields

2.9

TEMP: _____

Client/Company Name *		Report Attention *		Phone * #:(831)-357-6227		FAX * #:(831)-641-0734	
Monterey Bay Analytical		David Holland		E-mail: 4MBAS@Sbcglobal.net			
Address *		City *		State *		Zip *	
4 Justin Ct.		Monterey		CA		93940	
Project Information:		PO #		Quote #			
Cal Am				464			
How would you like your completed results sent?		<input checked="" type="checkbox"/> E-Mail		<input type="checkbox"/> Fax		<input type="checkbox"/> EDD	
Sampler Name Printed / Signature		QC Request		Result Request ***		Surcharge	
Josh Soboleu		<input checked="" type="checkbox"/> STD <input type="checkbox"/> Level II		<input type="checkbox"/> STD <input checked="" type="checkbox"/> 5 Day**		<input type="checkbox"/> 2 Day** <input type="checkbox"/> Day**	
Matrix Types:		RSW = Raw Surface Water		CFW = Contaminated Finished Water		CWW = Chlorinated Waste Water	
RGW = Raw Ground Water		FW = Finished Water		WW = Waste Water		SW = Storm Water	
		BW = Bottled Water		DW = Drinking Water		SO = Solid	
Sample #	Bottles	Date	Sampled Time	Sample Description / Location *	Matrix *	Comments / Station Code	
		3/10/14	10:00	CX-82WQ Zone #2	RGW	12631	✓
				5 day TAT please			✓
				Conductivity 26104 us/cm 21,681 us			✓
Retrieved by: (Signature and Printed Name)		Date		Time		Received by: (Signature and Print Name)	
David Holland		3/10/14		1200			
Retrieved by: (Signature and Printed Name)		Date		Time		Received by: (Signature and Print Name)	
Received for Lab by: (Signature and Printed Name)		Date		Time		Payment Received at Delivery:	
						Amount:	
Shipping Method:		Cooling Method:		Packing Material:		Check/Cash/Card PIA #	
GAO JNS GSO WALK-IN SYVC PEDEX OTHER		WET BLUE NONE					

Notice: Payment for services rendered is noted herein are due in full within 30 days from when invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service-charging charges and interest calculated at 1 1/2 % per month, 18% per annum. BSK & Associates shall be entitled to recover on delinquent accounts, costs of collection, including attorney's fees incurred prior to or in litigation, whether concluded by judgment, settlement, compromise or otherwise. The person signing for the client/Company expressly acknowledges that they are either the Client or authorized agent to the Client, and the Client agrees to be responsible for payment for analytical services on this Chain of Custody. Any modification of the analysis requested, other type or quantities, will be noted and agreed upon this Chain of Custody. The amount billed for any samples received after 1:00 pm will begin the next business day.



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$	Yes No NA	Were correct containers and preservatives received for the tests requested?	Yes No NA		
	If samples were taken today, is there evidence that chilling has begun?	Yes No <u>NA</u>	Were there bubbles in the VOA vials? (Volatiles Only)	Yes <u>No</u> NA		
	Did all bottles arrive unbroken and intact?	<u>Yes</u> No	Was a sufficient amount of sample received?	<u>Yes</u> No		
	Did all bottle labels agree with COC?	<u>Yes</u> No	Do samples have a hold time <72 hours?	Yes <u>No</u>		
	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes No <u>NA</u>	Was PM notified of discrepancies? PM: _____ By/Time: _____	Yes No <u>NA</u>		
Bottles Received <small>— means preservation/chlorine checks are either N/A or are performed in the lab</small>	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks Passed?	1			
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—			
	None (P) ^{White Cap}	—	—			
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y N			
	HNO_3 (P) ^{Red Cap}	—	—			
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y N			
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y N			
	NaOH + ZnAc (P)	pH ≥ 9	Y N			
	Dissolved Oxygen 300ml (g)	—	—			
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—			
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—	10		
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—	20, 24		
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—	47		
	$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) ^{Orange Label} 531	pH = 3	<u>Y</u> N	10		
	NH_4Cl (AG) ^{Purple Label} 552	—	—			
	EDA (AG) ^{Brown Label} DBPs	—	—			
	Ascorbic + Maleic (AG) ^{Lt Green Label} 524.3	—	—			
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—	32		
	Buffer pH 4 (CG)	—	—			
	None (CG)	—	—			
	H_3PO_4 (CG) ^{Salmon Label}	—	—			
	Other:					
	Asbestos 1Liter Plastic w/ Foil	—	—			
Low Level Hg / Metals Double Baggie	—	—				
Bottled Water	—	—				
Clear Glass Jar: 250 / 500 / 1 Liter	—	—				
Soil Tube Brass / Steel / Plastic	—	—				
Tedlar Bag / Plastic Bag	—	—				
Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials
	S P			S P		
Comments	S P			S P		

Labeled by: SLB @ 17:09

Labels checked by: G-362 @ 17:23

RUSH Paged by: _____

*Ceres Analytical Laboratory, Inc.
4919 Windplay Dr., Suite 1
El Dorado Hills, CA 95762*

March 15, 2014

Ceres ID: 10287

Monterey Bay Analytical
Mr. David Holland
4 Justin Court, Ste. D
Monterey, CA 93940

Mr. Holland,

Enclosed please find the results for one aqueous sample received on March 11, 2014. This sample was analyzed for 2,3,7,8-TCDD by EPA 1613. Rush 5 day turn-around time was provided for this work.

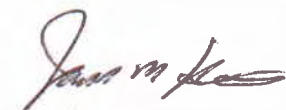
This work was authorized under M.B.A.'s Project # 12631.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

The Sample Tracking Section includes all external and internal chain of custodies, laboratory bench sheets, and any special instructions received.

If you have any questions regarding this report, please feel free to contact me at (888)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

<u>Ceres Sample ID:</u>	<u>Sample ID</u>	<u>Date Received</u>	<u>Collection Date & Time</u>
10287-001	CX-B2WQ Zone #2	3/11/2014	3/10/2014 10:00

Section II: Data Summary

Sample ID: Method Blank								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-MB001	Date Received:	NA
Project:	12631		Sample Size:	1.000 L	QC Batch #:	1165	Date Extracted:	13-Mar-14
Date Collected:	NA				ZB-5 MS Analysis Date:	14-Mar-14		
Time Collected:	NA							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	3.25			<u>IS</u> ¹³ C-2,3,7,8-TCDD	104	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	104	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JMH			Reviewed by:	BS			

Sample ID: Ongoing Precision and Recovery								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-OPR001	Date Received:	NA
Project:	12631		Sample Size:	1.000 L	QC Batch #:	1165	Date Extracted:	13-Mar-14
Date Collected:	NA				ZB-5 MS Analysis Date:	14-Mar-14		
Time Collected:	NA							
Analyte	Conc. (ng/ml)	Limits^a	Qualifiers		Labeled Standards	Conc.	Limits^a	Qualifiers
2,3,7,8-TCDD	9.24	7.3-14.6			IS ¹³ C-2,3,7,8-TCDD	104	25-141	
					CRS ³⁷ Cl ₄ -2,3,7,8-TCDD	9.88	3.7-15.8	
					<i>a. Method acceptance criteria .</i>			
Analyst: JMH				Reviewed by: BS				

Sample ID: CX-B2WQ Zone #2							
Client Data			Sample Data		Laboratory Data		
Name: Monterey Bay Analytical			Matrix: Aqueous		Lab Sample ID: 10287-001		Date Received: 11-Mar-14
Project: 12631			Sample Size: 1.042 L		QC Batch #: 1165		Date Extracted: 13-Mar-14
Date Collected: 10-Mar-14					ZB-5 MS Analysis Date: 14-Mar-14		
Time Collected: 10:00							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c Qualifiers
2,3,7,8-TCDD	ND	1.59			<u>IS</u> ¹³ C-2,3,7,8-TCDD	102	31 - 137
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	93.9	42 - 164
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.		
Analyst: JMH				Reviewed by: BS			

Section VI: Sample Tracking

4919 Windplay Dr. Suite 1
 El Dorado Hills, CA 95762
 Tel: (916)932-5011

Please Print in Pen

Ceres Project ID: _____
 Temperature: _____ °C

Reports and invoices will be delivered by email in .pdf format

Client Information	Invoice Information (if different from Client Info)	Project Information
Company Name: _____ Monterey Bay Analytical Contact Name: _____ David Holland Address: 4 Justin Court Ste D Monterey CA 93940 Ph: 831-375-6227 Email: montereybayanalytical@usa.net	Company Name: _____ Same Contact Name: _____ Address: _____ Ph: _____ Fx: _____ Email: _____	Ceres Quote #: _____ P.O. # _____ Project ID: _____ TAT (business days) _____ Std 15 days; Rush TAT available please call

Matrix abbreviations:

A: Aqueous S: Soil AS: Ash DW: Drinking Water
 E: Effluent SD: Sediment C: Clay SO: Solid
 I: Influent SL: Sludge CS: Clay Slurry O: Other (please comment)

	Sample ID	Sample Collection			Matrix	# of containers	EPA 1613	EPA 8290	NCASI 551	EPA 8280	EPA 613	Other	TEF
		Date	Time	Comments									<input type="checkbox"/> 1998 WHO <input type="checkbox"/> 2005 WHO <input type="checkbox"/> Other
1	CX-B2WQ Zone #2	3/10/2014	10:00	Aq	2	X							12631
2													(2,3,7,8 TCDD only)
3													5 day Rush Please
4													conductivity 21,681 us
5													
6													
7													
8													
9													
10													
11													
12													

Samples will be disposed of 45 days after submission of report, unless other provisions have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (signature and Printed Name)	Date	Time
David Holland	3/10/2014	12:00	Debbie Heolin	3/11/14	10:15

Client understands that all terms described in the proposals, quotations, and/or the general terms and conditions of Ceres Analytical Laboratory will be followed.

Ceres Analytical Laboratory reserves the right to terminate its service or withhold delivery of reports, if in Ceres' discretion the terms of the project have been broken.

Sample Receipt Check List

Ceres ID: 10287	Date/Time: 3/11/14 10:15 AM
Client Project ID: 12631	Received Temperature: 0.2 Acceptable: <input checked="" type="radio"/> Y / <input type="radio"/> N
Chain of Custody Relinquished by signed?	<input checked="" type="radio"/> Y / <input type="radio"/> N
Custody Seals? Present?	<input type="radio"/> Y / <input type="radio"/> N
Intact?	<input type="radio"/> Y / <input type="radio"/> N
NA:	<input checked="" type="radio"/> NA
Unlabeled / Illegible Samples	<input type="radio"/> Y / <input checked="" type="radio"/> N
Proper Containers:	<input checked="" type="radio"/> Y / <input type="radio"/> N
Preservation Acceptable (Chemical or Temperature)?	<input checked="" type="radio"/> Y / <input type="radio"/> N
Drinking Water, Sodium Thiosulfate present?	<input type="radio"/> Y / <input type="radio"/> N / <input checked="" type="radio"/> NA
List COC discrepancies:	None 3/11/14
List Damaged Samples:	None 3/11/14

Ceres Analytical Laboratory

Process Request

Ceres ID: 10287 PB: 1165 Sample #s: 1 Due Date: 2/16/14

Matrix (circle one): Drinking Water Aqueous Effluent Influent Ash
 Solid Soil Sediment Sludge Clay/Clay Slurry Other: _____

Method (check one) 1613 2,3,7,8-TCDD 8290 2,3,7,8-TCDD
 1613 2,3,7,8-TCDD/F 8290 2,3,7,8-TCDD/F
 1613 Cl₄-Cl₈ 8290 Cl₄-Cl₈
 8280 2,3,7,8-TCDD NCASI 551
 8280 2,3,7,8-TCDD/F
 8280 Appendix IX
 8280 Cl₄-Cl₈

Instructions:

Method: 1613
 SOP #: 301.1

Ceres Analytical Laboratory

Sample Prep Bench Sheet

Ceres ID	Client ID	Ver.	wt/vol	ISS/PAR		CSS		AP	AB/AC	FC	RSS	
				chem/date/witness	chem/date/witness	chem/date/witness	chem/date/witness				chem/date/witness	chem/date/witness
0-1165-MB001	Method Blank		1.000L	J 3/13/14 <i>me</i>	J 3/14/14 <i>me</i>	NA	J 3/14/14	NA	J 3/14/14 <i>me</i>		J 3/14/14 <i>me</i>	
0-1165-OPR001	OPR		1.000L	(A) ↓	↓	↓	↓	↓	↓	↓	↓	↓
10287-1165-001	CX-B2WQ Zone #2	✓	1.042L	↓	↓	↓	↓	↓	↓	↓	↓	↓

Comments: (A) spiked w/ass

Soxhlet Start: 15:00 3/13/14

Soxhlet Stop: 07:15 3/14/14

Samples Logged out by: J 11:00 3/13/14
 Samples Returned by: NA
 Note samples Depleted: 1A

Sample Extracts Storage Location: Box 8
 Extracts to Instrument: 10:50 3/14/14 J
 Extracts returned to Storage Location: 09:00 3/15/14 J

Chemist: J 473

Method: 1613
SOP #: 301.1

Ceres Analytical Laboratory
Sample Prep Bench Sheet

Standard	Standard ID	Vol.	Expiration Date
ISS	S031212A	10ul	3/12/17
NSS	S031212B	10ul	3/12/17
CSS	S031212C	10ul	3/12/17
RSS	S031212D	20ul	3/12/17

Solvents/Solutions/Packing Materials

Name	Amount	Lot #	Exp. Date
Toluene	450ml	P005770TOL	8/17/14
Hexane	30,30,100,20	53283	8/11/14
Sigel	4g	P020514A	8/5/14
Basicgel	4g	P012014A	7/20/14
Acid gel	8g	P031114A	9/11/14
Acid A1	6g	P031114B	9/11/14
Na2SO4	1.5g	P120413A	6/4/14
20% Bcm Hex	30ml	L031214A	9/12/14

Chemist:  474

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*	Results taken from dilution.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery

CERTIFICATE OF ANALYSIS

Client: Monterey Bay Analytical Services 4 Justin Court, Suite D Monterey CA, 93940	Report Date: 03/17/14 13:56
Attention: David Holland	Received Date: 03/11/14 09:20
Phone: (831) 375-6227	Turn Around: 5 workdays
Fax: (831) 641-0734	Client Project: Cal Am
Work Order(s): 4C11006	

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

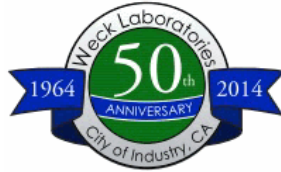
Dear David Holland :

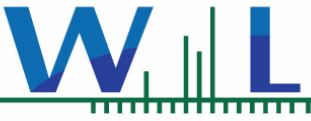
Enclosed are the results of analyses for samples received 03/11/14 09:20 with the Chain of Custody document. The samples were received in good condition, at 4.8 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager





Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:56

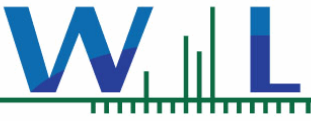
ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
CX-B2WQ Zone #2	Josh Soboleu	12631	4C11006-01	Water	03/10/14 10:00

ANALYSES

Anions by IC, EPA Method 300.0/300.1/326

Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:56

4C11006-01 CX-B2WQ Zone #2

Sampled: 03/10/14 10:00

Sampled By: Josh Soboleu

Matrix: Water

Sample Note: 12631

Anions by IC, EPA Method 300.0/300.1/326

Method: EPA 9056A

Batch: W4C0833

Prepared: 03/15/14 10:30

Analyst: atl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Iodide	ND	120	ug/l	12.5	03/15/14 15:05	M-02

Chlorinated Pesticides and/or PCBs

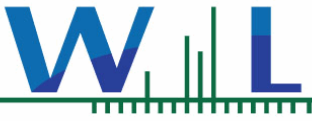
Method: EPA 508

Batch: W4C0665

Prepared: 03/12/14 14:41

Analyst: mxw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
4,4'-DDD	ND	0.010	ug/l	1	03/14/14 02:15	
4,4'-DDE	ND	0.010	ug/l	1	03/14/14 02:15	
4,4'-DDT	ND	0.010	ug/l	1	03/14/14 02:15	
Aldrin	ND	0.010	ug/l	1	03/14/14 02:15	
alpha-BHC	ND	0.010	ug/l	1	03/14/14 02:15	
Aroclor 1016	ND	0.10	ug/l	1	03/14/14 02:15	
Aroclor 1221	ND	0.10	ug/l	1	03/14/14 02:15	
Aroclor 1232	ND	0.10	ug/l	1	03/14/14 02:15	
Aroclor 1242	ND	0.10	ug/l	1	03/14/14 02:15	
Aroclor 1248	ND	0.10	ug/l	1	03/14/14 02:15	
Aroclor 1254	ND	0.10	ug/l	1	03/14/14 02:15	
Aroclor 1260	ND	0.10	ug/l	1	03/14/14 02:15	
beta-BHC	ND	0.010	ug/l	1	03/14/14 02:15	
Chlordane (tech)	ND	0.10	ug/l	1	03/14/14 02:15	
Chlorothalonil	ND	0.050	ug/l	1	03/14/14 02:15	
delta-BHC	ND	0.010	ug/l	1	03/14/14 02:15	
Dieldrin	ND	0.010	ug/l	1	03/14/14 02:15	
Endosulfan I	ND	0.010	ug/l	1	03/14/14 02:15	
Endosulfan II	ND	0.010	ug/l	1	03/14/14 02:15	
Endosulfan sulfate	ND	0.010	ug/l	1	03/14/14 02:15	
Endrin	ND	0.010	ug/l	1	03/14/14 02:15	
Endrin aldehyde	ND	0.010	ug/l	1	03/14/14 02:15	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	03/14/14 02:15	
Heptachlor	ND	0.010	ug/l	1	03/14/14 02:15	
Heptachlor epoxide	ND	0.010	ug/l	1	03/14/14 02:15	
Hexachlorobenzene	ND	0.010	ug/l	1	03/14/14 02:15	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	03/14/14 02:15	
Methoxychlor	ND	0.010	ug/l	1	03/14/14 02:15	
PCBs, Total	ND	0.50	ug/l	1	03/14/14 02:15	
Propachlor	ND	0.050	ug/l	1	03/14/14 02:15	
Toxaphene	ND	1.0	ug/l	1	03/14/14 02:15	
Trifluralin	ND	0.010	ug/l	1	03/14/14 02:15	
Surr: Decachlorobiphenyl	32 %	Conc:0.0308	70-130	%		S-GC
Surr: Tetrachloro-meta-xylene	116 %	Conc:0.111	70-130	%		



Monterey Bay Analytical Services
4 Justin Court, Suite D
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Date Received: 03/11/14 09:20
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4C11006-01 CX-B2WQ Zone #2

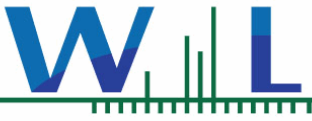
Sampled: 03/10/14 10:00

Sampled By: Josh Soboleu

Matrix: Water

Sample Note: 12631

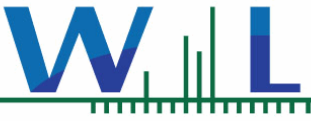
Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:56

QUALITY CONTROL SECTION



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:56

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

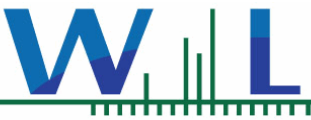
Batch W4C0833 - EPA 9056A

Table with columns: Analyte, Result, Reporting Limit, Units, Spike Level, Source Result, %REC, % REC Limits, RPD, RPD Limit, Data Qualifiers. Rows include Blank (W4C0833-BLK1), LCS (W4C0833-BS1), Matrix Spike (W4C0833-MS1), and Matrix Spike Dup (W4C0833-MSD1).

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4C0665 - EPA 508

Table with columns: Analyte, Result, Reporting Limit, Units, Spike Level, Source Result, %REC, % REC Limits, RPD, RPD Limit, Data Qualifiers. Rows list various pesticides and PCBs such as 4,4'-DDD, Aldrin, and Heptachlor.



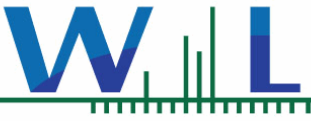
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:56

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4C0665 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4C0665-BLK1)										
Analyzed: 03/14/14 00:12										
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
<i>Surr: Decachlorobiphenyl</i>	0.108		ug/l	0.100		108	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.106		ug/l	0.100		106	70-130			
LCS (W4C0665-BS1)										
Analyzed: 03/14/14 00:43										
4,4'-DDD	0.0745	0.010	ug/l	0.100		75	55-142			
4,4'-DDE	0.0830	0.010	ug/l	0.100		83	49-129			
4,4'-DDT	0.0919	0.010	ug/l	0.100		92	54-160			
Aldrin	0.0782	0.010	ug/l	0.100		78	29-115			
alpha-BHC	0.0801	0.010	ug/l	0.100		80	59-131			
beta-BHC	0.0723	0.010	ug/l	0.100		72	63-136			
delta-BHC	0.0874	0.010	ug/l	0.100		87	59-137			
Dieldrin	0.0773	0.010	ug/l	0.100		77	59-135			
Endosulfan I	0.0659	0.010	ug/l	0.100		66	28-138			
Endosulfan II	0.0673	0.010	ug/l	0.100		67	53-133			
Endosulfan sulfate	0.0716	0.010	ug/l	0.100		72	58-155			
Endrin	0.0725	0.010	ug/l	0.100		72	57-148			
Endrin aldehyde	0.0706	0.010	ug/l	0.100		71	45-139			
gamma-BHC (Lindane)	0.0595	0.010	ug/l	0.100		60	59-129			
Heptachlor	0.0879	0.010	ug/l	0.100		88	42-136			
Heptachlor epoxide	0.0757	0.010	ug/l	0.100		76	59-134			
Methoxychlor	0.0727	0.010	ug/l	0.100		73	56-167			
<i>Surr: Decachlorobiphenyl</i>	0.0947		ug/l	0.100		95	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0986		ug/l	0.100		99	70-130			
LCS Dup (W4C0665-BSD1)										
Analyzed: 03/14/14 01:13										
4,4'-DDD	0.0865	0.010	ug/l	0.100		87	55-142	15	25	
4,4'-DDE	0.0904	0.010	ug/l	0.100		90	49-129	9	25	
4,4'-DDT	0.102	0.010	ug/l	0.100		102	54-160	10	25	
Aldrin	0.0841	0.010	ug/l	0.100		84	29-115	7	25	
alpha-BHC	0.0886	0.010	ug/l	0.100		89	59-131	10	25	
beta-BHC	0.0835	0.010	ug/l	0.100		84	63-136	14	25	
delta-BHC	0.0960	0.010	ug/l	0.100		96	59-137	9	25	
Dieldrin	0.0883	0.010	ug/l	0.100		88	59-135	13	25	
Endosulfan I	0.0704	0.010	ug/l	0.100		70	28-138	7	25	
Endosulfan II	0.0754	0.010	ug/l	0.100		75	53-133	11	25	
Endosulfan sulfate	0.0870	0.010	ug/l	0.100		87	58-155	19	25	
Endrin	0.0802	0.010	ug/l	0.100		80	57-148	10	25	
Endrin aldehyde	0.0736	0.010	ug/l	0.100		74	45-139	4	25	
gamma-BHC (Lindane)	0.0873	0.010	ug/l	0.100		87	59-129	38	25	Q-12
Heptachlor	0.0945	0.010	ug/l	0.100		95	42-136	7	25	
Heptachlor epoxide	0.0844	0.010	ug/l	0.100		84	59-134	11	25	
Methoxychlor	0.0923	0.010	ug/l	0.100		92	56-167	24	25	
<i>Surr: Decachlorobiphenyl</i>	0.105		ug/l	0.100		105	70-130			



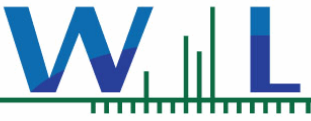
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/11/14 09:20
Date Reported: 03/17/14 13:56

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4C0665 - EPA 508

Analyte	Reporting Result	Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W4C0665-BSD1)				Analyzed: 03/14/14 01:13						
<i>Surr: Tetrachloro-meta-xylene</i>	0.107		ug/l	0.100		107	70-130			



Monterey Bay Analytical Services
4 Justin Court, Suite D
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Date Received: 03/11/14 09:20
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Notes and Definitions

S-GC	Surrogate recovery outside of control limits due to a possible matrix effect . The data was accepted based on valid recovery of the remaining surrogate.
Q-12	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on the percent recoveries and/or other acceptable QC data.
M-02	Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Color QC Summary (SM 2120B)

Date Analyzed: 3/10/2014

	Value (Color Units)	Result (Color Units)	% Rec	Acceptance Criteria %Rec
IPC	5	5	100.0	95-105

Sample ID	Sample (Color Units)	Sample Dup (Color Units)	% RPD	Acceptance Criteria % RPD
AB12658	1	1	0.0	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
831.375.MBAS (6227), 831.641.0734 (Fax)
MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

MBAS QC Summary (SM 5540C)

Date Analyzed: 3/10/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	0.050	0.053	106	80-120

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

pH QC Summary (SM 4500 H+)

Date Analyzed: 3/10/2014

	Value (pH Units)	Result (pH Units)	% Rec	Acceptance Criteria %Rec
IPC	6.86	6.88	100.3	95-105

Sample ID	Sample (pH Units)	Sample Dup (pH Units)	% RPD	Acceptance Criteria % RPD
AB12673	7.3	7.3	0.0	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Turbidity QC Summary (EPA 180.1)

Date Analyzed: 3/10/2014

	Value (NTU)	Result (NTU)	% Rec	Acceptance Criteria %Rec
IPC	1.00	1.00	100.0	95-105

Sample ID	Sample (NTU)	Sample Dup (NTU)	% RPD	Acceptance Criteria % RPD
AB12631	0.665	0.673	-0.01	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
 http://www.MBASinc.com

Ammonia by Electrode QC Summary (SM 4500-NH3)

Date: 3/11/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC (Low)	0.050	0.046	92	90-110
IPC (High)	0.500	0.494	98.8	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12237	0.014	0.500	0.486	0.499	94.46	97.06	2.6	85-120	10
AB12621	0.014	0.500	0.360	0.362	69.26	69.66	0.6	85-124	10

Note: The MS and MSD for the sample ID AB12621, does not meet the the acceptance criteria for the rec %. Data is accepted due IPC (Low) and IPC (High) rec %.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; IPC = Instrument Performance Check

RPD = Relative Percent Difference; Rec = Recovery

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 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Specific Conductance QC Summary (SM 2510B)

Date Analyzed: 3/11/2014

	Value (umhos/cm)	Result (umhos/cm)	% Rec	Acceptance Criteria %Rec
IPC	1412	1412	100.0%	95-105

Sample ID	Sample (umhos/cm)	Sample Dup (umhos/cm)	% RPD	Acceptance Criteria % RPD
AB12689	798	799	0.1%	10
AB12740	394	390	1.0%	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

All units expressed in mg/L

		F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
		2	20	2	20	2	2	2
IPC		2.09	19.67	2.11	19.26	2.12	1.97	2.01
Recovery	90-110%	104.45	98.35	105.73	96.31	105.80	98.37	100.75
CCV1		2.08	19.71	2.12	19.33	2.12	1.98	2.01
Recovery	90-110%	104.00	98.57	106.17	96.64	106.04	99.03	100.40
RPD	10%	0.43	0.23	0.42	0.35	0.23	0.67	0.35
CCV2		2.09	19.84	2.13	19.36	2.13	1.99	2.01
Recovery	90-110%	104.29	99.20	106.42	96.78	106.45	99.68	100.74
RPD	10%	0.16	0.86	0.65	0.49	0.61	1.32	0.01
CCV3		2.09	19.84	2.14	19.42	2.13	1.99	2.02
Recovery	90-110%	104.44	99.21	106.76	97.08	106.61	99.41	100.79
RPD	10%	0.01	0.87	0.96	0.80	0.76	1.05	0.04
		F	Cl	NO2-N	SO4	Br	NO3-N	PO4-P
		2	20	2	20	2	2	2
AB12686		0.37	35.27	0.23	164.17	0.02	4.25	0.00
AB12686+LFM		2.51	53.15	2.20	184.33	1.66	6.30	1.75
AB12686+LFMD		2.52	53.37	2.20	184.18	1.66	6.28	1.69
Average		2.51	53.26	2.20	184.25	1.66	6.29	1.72
Recovery	80-120%	107.20	89.96	98.34	100.40	81.94	101.91	85.83
RPD	10%	0.14	0.42	0.24	0.08	0.24	0.39	3.50
AB12697		0.19	58.83	0.13	134.78	0.00	6.73	0.00
AB12697+LFM		2.37	79.50	2.12	153.79	1.57	8.82	1.68
AB12697+LFMD		2.36	78.55	2.11	152.31	1.57	8.75	1.69
Average		2.37	79.02	2.12	153.05	1.57	8.79	1.68
Recovery	80-120%	108.52	100.96	99.13	91.35	78.49	103.09	84.24
RPD	10%	0.71	1.20	0.24	0.97	0.16	0.85	0.96

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Alkalinity QC Summary (SM 2320B)

Date Analyzed: 3/13/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	40	41.1	102.75	95-105
IPC	40	38.5	96.25	95-105

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12682	253.1	256.7	1.4	10
AB12692	230.1	231.5	0.6	10
AB12765	292.9	292.3	0.2	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

EPA 200.7 QC

Batch # 20140313

Analyte/ WL	Range	IC	Prep	LCS	%Rec	LCS	%Rec	%Diff	IC Verification			QCS (95-105%)		
		Blank	Blank	Value	85-115%	Value	85-115%		Value	Result	%Rec	Value	Result	%Rec
B 249.678	0.05-5ppm	0.01	0.00	1.00	100.4%	1.03	103.1%	2.7%	1	1.02	101.5%	1	0.98	97.8%
B 249.772	0.05-5ppm	0.01	0.01	1.01	100.7%	1.03	103.0%	2.3%	1	1.02	102.0%	1	0.99	98.6%
Ca 317.933	50-300ppm	-5.25	-5.24	49.3	98.5%	50.3	100.7%	2.2%	50	49.5	99.0%	50	48.7	97.4%
Ca 396.847	0.5-50ppm	-0.15	-0.14	49.8	99.7%	50.3	100.6%	0.9%	50	50.2	100.4%	50	48.8	97.6%
Cu 324.754	10ppb-100ppm	-8.02	-6.70	995	99.5%	1024	102.4%	2.8%	1000	1010	101.0%	1000	1000	100.0%
Cu 327.395	10ppb-100ppm	-3.00	-4.11	990	99.0%	1017	101.7%	2.7%	1000	1006	100.6%	1000	995	99.5%
Fe 238.204	10ppb-100ppm	-0.64	0.19	998	99.8%	1014	101.4%	1.6%	1000	1003	100.3%	1000	992	99.2%
Fe 259.940	10ppb-100ppm	0.30	-0.50	995	99.5%	1013	101.3%	1.8%	1000	1001	100.1%	1000	993	99.3%
K 766.491	0.5-750ppm	0.20	0.13	9.9	98.6%	10.0	100.4%	1.8%	10	10.0	100.5%	10	9.8	98.0%
Mg 202.582	50-1000ppm	-1.81	-1.83	50.2	100.4%	51.3	102.5%	2.2%	50	50.8	101.6%	50	49.7	99.4%
Mg 279.078	0.5-50ppm	0.04	0.02	48.9	97.8%	50.2	100.4%	2.6%	50	49.8	99.7%	50	49.0	97.9%
Mn 257.611	10ppb-11ppm	-4.82	-5.60	995	99.5%	1016	101.6%	2.1%	1000	1001	100.1%	1000	979	97.9%
Mn 260.568	10ppb-11ppm	-5.16	-5.50	993	99.3%	1012	101.2%	1.9%	1000	999	99.9%	1000	978	97.8%
Na 568.821	50-1000ppm	4.56	4.98	48.4	96.9%	48.9	97.8%	0.9%	50	48.0	95.9%	50	47.3	94.5%
Na 589.592	0.5-50ppm	0.25	0.17	49.6	99.1%	50.2	100.4%	1.3%	50	50.0	100.0%	50	48.6	97.3%
Si 251.611	0.5-200ppm	0.09	0.05	50.0	100.0%	50.9	101.8%	1.7%	50	50.6	101.3%	107	105.5	98.6%
Si 252.411	0.5-200ppm	0.08	0.02	49.7	99.3%	50.7	101.4%	2.1%	50	50.5	100.9%	107	105.3	98.4%

Matrix Spikes

Sample ID AB12549

Analyte/ WL	Sample Value	MS	%Rec	MSD	%Rec	%Diff	CCV (90-110%)			%Diff	CC
		Value	70-130%	Value	70-130%		Value	Result	%Rec	10%	Blank
B 249.678	0.06	1.03	96.3%	1.04	97.3%	1.0%	1	0.98	97.6%	3.9%	0.00
B 249.772	0.06	1.04	97.8%	1.04	97.7%	0.1%	1	0.99	98.8%	3.2%	0.00
Ca 317.933	57.4	109.5	104.1%	108.7	102.5%	0.7%	50	48.5	97.0%	2.1%	-5.27
Ca 396.847	55.3	91.0	71.3%	91.0	71.5%	0.1%	50	48.3	96.6%	3.8%	-0.17
Cu 324.754	341	1295	95.5%	1299	95.8%	0.3%	1000	980	98.0%	3.1%	-8.97
Cu 327.395	336	1289	95.4%	1291	95.5%	0.1%	1000	972	97.2%	3.4%	-2.96
Fe 238.204	22	999	97.7%	993	97.1%	0.6%	1000	975	97.5%	2.8%	-0.52
Fe 259.940	19	987	96.8%	987	96.7%	0.1%	1000	977	97.7%	2.5%	-1.73
K 766.491	3.5	13.2	96.5%	13.3	97.6%	0.9%	10	9.66	96.6%	3.9%	0.08

Mg 202.582	15.7	65.9	100.3%	66.0	100.5%	0.2%	50	49.5	99.0%	2.6%	-1.79
Mg 279.074	16.6	64.0	94.8%	63.8	94.4%	0.3%	50	48.3	96.7%	3.1%	0.01
Mn 257.610	-1	973	97.3%	968	96.9%	0.5%	1000	976	97.6%	2.5%	-5.26
Mn 260.568	0	974	97.4%	968	96.9%	0.5%	1000	975	97.5%	2.4%	-4.73
Na 568.821	58.9	103.5	89.2%	103.4	89.1%	0.0%	50	47.5	94.9%	1.1%	6.03
Na 589.592	57.8	104.7	93.6%	105.9	96.0%	1.1%	50	48.3	96.7%	3.4%	0.17
Si 251.611	27.3	75.5	96.4%	75.0	95.4%	0.7%	50	49.3	98.6%	2.7%	-0.04
Si 252.411	27.0	74.9	95.8%	74.3	94.8%	0.7%	50	48.8	97.5%	3.5%	-0.03

Monterey Bay Analytical Services

QC Summary for 200.8

Spiked Sample
ID AB12896 D

Date Analyzed
Monday, March 17, 2014 13:56:41

	Sample	Spiked	MS	MSD	MS-MSD	LFB	LFB	LFB-LFBD	Acceptance Criteria %			
	ug/L	ug/L	%Rec.	% Rec.	% RPD	% Rec	% Rec	% RPD	MS/MSD	RPD	LFB/LFBD	RPD
Lithium	149.9	50	98.6	95.0	3.71	99.39	105.79	6.24	70-130	20	85-115	20
Beryllium	0.1	50	94.0	93.0	1.09	100.99	104.29	3.21	70-130	20	85-115	20
Aluminum	151.1	50	96.8	98.1	1.38	104.19	103.71	0.46	70-130	20	85-115	20
Vanadium	1.0	50	111.9	110.1	1.57	101.78	96.36	5.47	70-130	20	85-115	20
Chromium	12.7	50	105.9	105.5	0.31	101.51	97.60	3.94	70-130	20	85-115	20
Iron 54	12.8	100	99.7	102.4	2.62	100.42	71.80	33.24	70-130	20	85-115	20
Manganese	67.1	50	100.3	101.3	0.98	99.43	95.41	4.13	70-130	20	85-115	20
Cobalt	1.9	50	97.9	98.7	0.79	102.10	96.35	5.79	70-130	20	85-115	20
Nickel	32.0	50	91.6	92.1	0.56	99.33	96.10	3.30	70-130	20	85-115	20
Copper	168.0	50	97.7	101.8	4.14	99.24	107.13	7.64	70-130	20	85-115	20
Zinc	383.0	50	118.1	105.7	11.02	98.68	119.20	18.84	70-130	20	85-115	20
Arsenic	60.4	50	102.0	107.2	4.91	100.54	108.37	7.49	70-130	20	85-115	20
Selenium	244.6	250	101.6	104.6	2.94	101.59	108.93	6.97	70-130	20	85-115	20
Strontium	9965.8	50	55.0	76.8	33.10	99.57	103.45	3.83	70-130	20	85-115	20
Molybdenum	4.9	50	108.7	110.4	1.56	99.16	95.38	3.90	70-130	20	85-115	20
Silver	0.1	50	86.6	90.7	4.63	100.66	101.33	0.67	70-130	20	85-115	20
Cadmium	-1.7	50	97.1	97.1	0.06	99.84	102.54	2.66	70-130	20	85-115	20
Antimony	0.2	50	100.6	102.4	1.74	100.15	96.78	3.42	70-130	20	85-115	20
Barium	90.2	50	91.2	93.7	2.68	100.03	91.30	9.13	70-130	20	85-115	20
Mercury	0.6	2.5	96.0	96.9	0.99	113.92	120.52	5.63	70-130	20	85-115	20
Thallium	0.1	50	94.6	97.6	3.14	102.41	105.48	2.95	70-130	20	85-115	20
Lead	-0.2	50	93.4	95.4	2.16	99.59	104.99	5.27	70-130	20	85-115	20
Uranium	5.9	50	103.7	105.3	1.57	100.26	107.96	7.39	70-130	20	85-115	20

MS = Matrix Spike MSD = Matrix Spike Duplicate; LFB = Laboratory Fortified Blank; LFBD = Laboratory Fortified Blank Duplicate RPD = Relative Percent Difference

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Kjehldahl Nitrogen QC Summary (SM 4500-NH3)

Date: 3/17/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	5.0	5.200	104	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12627	2.400	5.000	7.200	7.300	96	98	1.4	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery



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ELAP Certification Number: 2385

Page 1 of 2

Friday, March 21, 2014

Lab Number: AB12792

Collection Date/Time: 3/11/2014 15:45 Sample Collector: SOBOWLEW, J
Submittal Date/Time: 3/12/2014 8:30 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-B2WQ Zone 3 (104-114 Ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO ₃)	SM2320B	mg/L	102		2		3/19/2014	LRH
Aluminum, Total	EPA200.8	ug/L	156	J	200	1000	3/17/2014	SM
Ammonia-N, Dissolved	SM4500NH ₃ D	mg/L	Not Detected		0.05		3/21/2014	LRH
Arsenic, Total	EPA200.8	ug/L	59		20	10	3/17/2014	SM
Barium, Dissolved	EPA200.8	ug/L	85	J	200		3/17/2014	SM
Bicarbonate (as HCO ₃ ⁻)	SM2320B	mg/L	124		10		3/20/2014	SM
Boron, Dissolved	EPA200.7	mg/L	2.58		0.5		3/13/2014	DC
Bromide, Dissolved	EPA300.0	mg/L	45		10		3/13/2014	DC
Calcium	EPA200.7	mg/L	712		5		3/13/2014	DC
Calcium, Dissolved	EPA200.7	mg/L	732		5		3/13/2014	DC
Carbamates by HPLC (EPA 531)	EPA531	ug/L	Attached (ND)	E			3/14/2014	BSK
Carbonate as CaCO ₃	SM2320B	mg/L	Not Detected		10		3/20/2014	SM
Chloride, Dissolved	EPA300.0	mg/L	14099		100		3/13/2014	DC
Chlorinated Pesticides and PCB (EP	EPA508	ug/L	Attached (ND)	E			3/19/2014	WECK
Color, Apparent (Unfiltered)	SM2120B	Color Units	Not Detected		3	15	3/12/2014	LRH
Copper, Total	EPA200.8	ug/L	150		80	1300	3/17/2014	SM
DBCP & EDB	EPA504.1	ug/L	Attached (ND)	E			3/19/2014	BSK
Dioxin	EPA-5 1613B	pg/L	Not Detected	E			3/14/2014	CERES
Diquat (EPA 549)	EPA549	ug/L	Attached (ND)	E			3/19/2014	BSK
Dissolved Anions	Calculation	Meq/L	439				3/20/2014	DH
Dissolved Cations	Calculation	Meq/L	418				3/20/2014	DH
Endothall	EPA548.1	ug/L	Attached (ND)	E			3/18/2014	BSK
Fluoride, Dissolved	EPA300.0	mg/L	0.5		0.2		3/13/2014	DC
Glyphosate	EPA547	ug/L	Attached (ND)	E			3/17/2014	BSK
Hardness (as CaCO ₃)	SM2340B/Calc	mg/L	5995		10		3/14/2014	DH
Hydroxide	SM2320B	mg/L	Not Detected		5		3/20/2014	SM
Iodide	EPA9056M	ug/L	Attached (ND)	E	10		3/15/2014	WECK
Iron	EPA200.7	ug/L	138		100	300	3/13/2014	DC
Iron, Dissolved	EPA200.7	ug/L	Not Detected		100	300	3/13/2014	DC
Kjeldahl Nitrogen, Dissolved	SM4500-NH ₃ B,	mg/L	Not Detected		0.5		3/17/2014	HM
Lithium	EPA200.8	ug/L	173		20		3/17/2014	SM
Magnesium	EPA200.7	mg/L	1024		5		3/13/2014	DC
Magnesium, Dissolved	EPA200.7	mg/L	1056		100		3/13/2014	DC
Manganese, Dissolved	EPA200.7	ug/L	Not Detected		100	50	3/13/2014	DC
Manganese, Total	EPA200.7	ug/L	Not Detected		100	50	3/13/2014	DC

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level

H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See Report attachments. T = Temperature Exceedance

Lab Number: AB12792

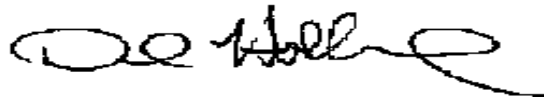
Collection Date/Time: 3/11/2014 15:45 Sample Collector: SOBOLEW, J
 Submittal Date/Time: 3/12/2014 8:30 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-B2WQ Zone 3 (104-114 Ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
MBAS (Surfactants)	SM5540C	mg/L	Not Detected		0.05	0.50	3/13/2014	DH
Nitrate as NO3	EPA300.0	mg/L	2		2	45	3/13/2014	DC
Nitrate+Nitrite as N	EPA300.0	mg/L	0.5		0.2		3/13/2014	DC
Nitrite as NO2-N, Dissolved	EPA300.0	mg/L	Not Detected		0.2		3/13/2014	DC
Odor Threshold at 60 C	SM2150B	TON	1		1	3	3/12/2014	MW
o-Phosphate-P, Dissolved	Hach 8190	mg/L	Not Detected		0.1		3/14/2014	HC
pH (Field Test)	SM4500-H+B	pH	6.96				3/11/2014	JS
pH (Laboratory)	SM4500-H+B	pH (H)	7.2				3/12/2014	FS
Phenoxy Acid Herbicides (515.3)	EPA515.3	ug/L	Attached (ND) E				3/15/2014	BSK
Phosphorus, Dissolved	HACH 8190	mg/L	Not Detected		0.03		3/14/2014	HC
Potassium	EPA200.7	mg/L	193		5		3/13/2014	DC
Potassium, Dissolved	EPA200.7	mg/L	201		1		3/13/2014	DC
QC Ratio TDS/SEC	Calculation		0.66				3/14/2014	DH
Reg. Org. Compounds (EPA 525)	EPA525	ug/L	Attached (ND) E				3/19/2014	BSK
Silica as SiO2, Dissolved	EPA200.7	mg/L	20		5		3/13/2014	DC
Sodium	EPA200.7	mg/L	6485		5		3/13/2014	DC
Sodium, Dissolved	EPA200.7	mg/L	6643		5		3/13/2014	DC
Specific Conductance (E.C)	SM2510B	umhos/cm	40720		1	900	3/14/2014	HM
Specific Conductance (E.C) (Field)	SM2510B	umhos/cm	40173		1		3/11/2014	JS
Strontium, Dissolved	EPA200.8	ug/L	9020		100		3/17/2014	SM
Sulfate	EPA300.0	mg/L	1855		100	250	3/13/2014	DC
Temperature (Field)	SM2550	° C	17.6				3/11/2014	JS
Total Cations	Calculations	Meq/L	407				3/20/2014	DH
Total Diss. Solids	SM2540C	mg/L	26800		10	500	3/13/2014	HM
Turbidity	EPA180.1	NTU	0.65		0.05	5.0	3/13/2014	LRH
Turbidity (Field)	EPA180.1	NTU	0.57		0.05		3/11/2014	JS
Volatile Org. Compounds (524)	EPA524	ug/L	Attached (ND) E				3/19/2014	BSK
Zinc, Total	EPA200.8	ug/L	384		200	5000	3/17/2014	SM

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level
 H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See Report attachments. T = Temperature Exceedance

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12792 CX-B2WQ Zone 3 Dissolved**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	6643	0.04350	288.97
Potassium	201	0.02558	5.14
Calcium	732	0.04990	36.53
Magnesium	1056	0.08229	86.90
NH3-N	0	0.07143	0.00
		SUM	417.54

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	102	0.02000	2.04
Sulfate	1855	0.02082	38.62
Chloride	14099	0.02821	397.73
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0.5	0.07138	0.04
Phosphate-P	0.0	0.01031	0.00
Fluoride	0.5	0.05264	0.03
Bromide	45.0	0.01252	0.56
		SUM	439.02

ANION-CATION BALANCE: **-3** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	40720	
Cation Sum X 100	41754	103%
Anion Sum X 100	43902	108%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	36.8
Ca+Mg+Na	412.40
HCO3/Ca	0.06
dS/m	40.72
Value Table II	1.5
SAR adj	43.5

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **AB12792 CX-B2WQ Zone 3 Total**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	6485	0.04350	282.10
Potassium	193	0.02558	4.94
Calcium	712	0.04990	35.53
Magnesium	1024	0.08229	84.26
NH3-N	0	0.07143	0.00
		SUM	406.83

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	102	0.02000	2.04
Sulfate	1855	0.02082	38.62
Chloride	14099	0.02821	397.73
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0.5	0.07138	0.04
Phosphate-P	0.0	0.01031	0.00
Fluoride	0.5	0.05264	0.03
Bromide	45.0	0.01252	0.56
		SUM	439.02

ANION-CATION BALANCE: **-4** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	40720	
Cation Sum X 100	40683	100%
Anion Sum X 100	43902	108%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	36.4
Ca+Mg+Na	401.89
HCO3/Ca	0.06
dS/m	40.72
Value Table II	1.5
SAR adj	43.1

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Appendix G

A4C1132

3/20/2014

Invoice: A406856

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

RE: Report for A4C1132 Cal Am

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 3/14/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAP Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montieth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montieth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: Monterey Bay Analytical
Report To: David Holland
Project #: -
Received: 3/14/2014 - 09:30
Report Due: 3/21/2014

Invoice To: Monterey Bay Analytical
Invoice Attn: David Holland
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 4.9	COC/Labels Agree
	Received On Wet Ice
	Packing Material - Bubble Wrap
	Packing Material - Foam
	Packing Material - Paper
	Sample(s) were received in temperature range.
	Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- BS1.1 Blank spike recovery for this analyte was biased high. Associated result may be biased high; reanalysis not feasible.
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- MS1.1 Matrix spike recovery exceeds upper control limit. Reported results for parent matrix may be biased high due to matrix interferences.

Report Distribution

Recipient(s)	Report Format	CC:
David Holland	Final.rpt	

Certificate of Analysis

Sample ID: A4C1132-01
Sampled By: Josh Sobolew
Sample Description: CX-B2WQ Zone #3 (104-114 ft bgs) // 12792

Sample Date - Time: 03/11/14 - 15:45
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A403269	03/18/14	03/19/14	CV0.0
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A403269	03/18/14	03/19/14	BS1.1, CV0.0
Surrogate: 1-Br-2-Nitrobenzene	EPA 504.1	91 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A403154	03/14/14	03/15/14	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A403154	03/14/14	03/15/14	
2,4-D	EPA 515.3	ND	10	ug/L	1	A403154	03/14/14	03/15/14	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A403154	03/14/14	03/15/14	
Dalapon	EPA 515.3	ND	10	ug/L	1	A403154	03/14/14	03/15/14	BS1.0, CV0.0
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A403154	03/14/14	03/15/14	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A403154	03/14/14	03/15/14	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A403154	03/14/14	03/15/14	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A403154	03/14/14	03/15/14	
Surrogate: DCPAA	EPA 515.3	80 %	<i>Acceptable range: 70-130 %</i>						
<u>Volatile Organics by GC-MS</u>									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A403247	03/18/14	03/19/14	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A403247	03/18/14	03/19/14	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A403247	03/18/14	03/19/14	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A403247	03/18/14	03/19/14	

Certificate of Analysis

Sample ID: A4C1132-01
Sampled By: Josh Sobolew
Sample Description: CX-B2WQ Zone #3 (104-114 ft bgs) // 12792

Sample Date - Time: 03/11/14 - 15:45
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics by GC-MS									
Acetone	EPA 524.2	ND	10	ug/L	1	A403247	03/18/14	03/19/14	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A403247	03/18/14	03/19/14	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A403247	03/18/14	03/19/14	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A403247	03/18/14	03/19/14	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A403247	03/18/14	03/19/14	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	

Certificate of Analysis

Sample ID: A4C1132-01
Sampled By: Josh Sobolew
Sample Description: CX-B2WQ Zone #3 (104-114 ft bgs) // 12792

Sample Date - Time: 03/11/14 - 15:45
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	96 %							
Surrogate: Bromofluorobenzene	EPA 524.2	101 %							
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
Semi-Volatile Organics by GC-MS									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A403279	03/18/14	03/19/14	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A403279	03/18/14	03/19/14	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A403279	03/18/14	03/19/14	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A403279	03/18/14	03/19/14	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A403279	03/18/14	03/19/14	BS1.0
Bromacil	EPA 525.2	ND	10	ug/L	1	A403279	03/18/14	03/19/14	
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A403279	03/18/14	03/19/14	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A403279	03/18/14	03/19/14	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A403279	03/18/14	03/19/14	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A403279	03/18/14	03/19/14	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A403279	03/18/14	03/19/14	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A403279	03/18/14	03/19/14	
Prometryn	EPA 525.2	ND	2.0	ug/L	1	A403279	03/18/14	03/19/14	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A403279	03/18/14	03/19/14	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A403279	03/18/14	03/19/14	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A403279	03/18/14	03/19/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	107 %							
Carbamates by HPLC									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A403175	03/14/14	03/14/14	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A403175	03/14/14	03/14/14	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A403175	03/14/14	03/14/14	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A403175	03/14/14	03/14/14	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A403175	03/14/14	03/14/14	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A403175	03/14/14	03/14/14	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A403175	03/14/14	03/14/14	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A403175	03/14/14	03/14/14	
Carbamates by HPLC									
Methiocarb	EPA 531.1	ND	2.0	ug/L	1	A403175	03/14/14	03/14/14	
Propoxur	EPA 531.1	ND	2.0	ug/L	1	A403175	03/14/14	03/14/14	
Glyphosate by HPLC									
Glyphosate	EPA 547	ND	25	ug/L	1	A403209	03/17/14	03/17/14	
Surrogate: AMPA	EPA 547	101 %							
Endothall by GC-MS									
Endothall	EPA 548.1	ND	45	ug/L	1	A403241	03/17/14	03/18/14	

Certificate of Analysis

Sample ID: A4C1132-01
Sampled By: Josh Sobolew
Sample Description: CX-B2WQ Zone #3 (104-114 ft bgs) // 12792

Sample Date - Time: 03/11/14 - 15:45
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A403185	03/15/14	03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A403269

Prepared: 03/18/2014

Prep Method: EPA 505

Analyst: GAK

Blank (A403269-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							03/19/14	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							03/19/14	
Surrogate: 1-Br-2-Nitrobenzene	0.63			0.69		92	70-130			03/19/14	

Blank Spike (A403269-BS1)

Dibromochloropropane (DBCP)	0.24	0.010	ug/L	0.20		119	70-130			03/19/14	
Ethylene Dibromide (EDB)	0.28	0.020	ug/L	0.20		140	70-130			03/19/14	BS High
Surrogate: 1-Br-2-Nitrobenzene	0.66			0.69		97	70-130			03/19/14	

Blank Spike Dup (A403269-BSD1)

Dibromochloropropane (DBCP)	0.24	0.010	ug/L	0.20		118	70-130	1	20	03/19/14	
Ethylene Dibromide (EDB)	0.28	0.020	ug/L	0.20		139	70-130	1	20	03/19/14	BS High
Surrogate: 1-Br-2-Nitrobenzene	0.62			0.69		91	70-130			03/19/14	

Matrix Spike (A403269-MS1), Source: A4C1245-01

Dibromochloropropane (DBCP)	0.24	0.010	ug/L	0.20	ND	116	65-135			03/19/14	
Ethylene Dibromide (EDB)	0.28	0.020	ug/L	0.20	ND	137	65-135			03/19/14	MS1.1 High
Surrogate: 1-Br-2-Nitrobenzene	0.65			0.70		93	70-130			03/19/14	

Matrix Spike Dup (A403269-MSD1), Source: A4C1245-01

Dibromochloropropane (DBCP)	0.25	0.010	ug/L	0.21	ND	120	65-135	4	20	03/19/14	
Ethylene Dibromide (EDB)	0.28	0.020	ug/L	0.21	ND	138	65-135	2	20	03/19/14	MS1.1 High
Surrogate: 1-Br-2-Nitrobenzene	0.65			0.70		93	70-130			03/19/14	

EPA 515.3 - Quality Control

Batch: A403154

Prepared: 03/14/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank (A403154-BLK1)

2,4,5-T	ND	1.0	ug/L							03/14/14	
2,4,5-TP (Silvex)	ND	1.0	ug/L							03/14/14	
2,4-D	ND	10	ug/L							03/14/14	
Bentazon	ND	2.0	ug/L							03/14/14	
Dalapon	ND	10	ug/L							03/14/14	
Dicamba	ND	1.5	ug/L							03/14/14	
Dinoseb	ND	2.0	ug/L							03/14/14	
Pentachlorophenol	ND	0.20	ug/L							03/14/14	
Picloram	ND	1.0	ug/L							03/14/14	
Surrogate: DCPAA	53			58		92	70-130			03/14/14	

Blank Spike (A403154-BS1)

2,4,5-T	4.0	1.0	ug/L	4.0		100	70-130			03/14/14	
2,4,5-TP (Silvex)	0.73	1.0	ug/L	0.80		91	70-130			03/14/14	
2,4-D	0.39	10	ug/L	0.40		98	70-130			03/14/14	
Bentazon	8.2	2.0	ug/L	8.0		102	70-130			03/14/14	
Dalapon	7.0	10	ug/L	4.0		174	70-130			03/14/14	BS High

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A403154

Prepared: 03/14/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike (A403154-BS1)

Dicamba	5.7	1.5	ug/L	6.0		94	70-130			03/14/14	
Dinoseb	0.80	2.0	ug/L	0.80		100	70-130			03/14/14	
Pentachlorophenol	0.14	0.20	ug/L	0.16		91	70-130			03/14/14	
Picloram	0.36	1.0	ug/L	0.40		89	70-130			03/14/14	
Surrogate: DCPAA	54			58		93	70-130			03/14/14	

Blank Spike Dup (A403154-BSD1)

2,4,5-T	4.0	1.0	ug/L	4.0		100	70-130	0	20	03/15/14	
2,4,5-TP (Silvex)	0.72	1.0	ug/L	0.80		90	70-130	1	20	03/15/14	
2,4-D	0.39	10	ug/L	0.40		97	70-130	1	20	03/15/14	
Bentazon	8.0	2.0	ug/L	8.0		100	70-130	2	20	03/15/14	
Dalapon	7.7	10	ug/L	4.0		193	70-130	10	20	03/15/14	BS High
Dicamba	5.7	1.5	ug/L	6.0		94	70-130	0	20	03/15/14	
Dinoseb	0.82	2.0	ug/L	0.80		102	70-130	2	20	03/15/14	
Pentachlorophenol	0.14	0.20	ug/L	0.16		89	70-130	2	20	03/15/14	
Picloram	0.34	1.0	ug/L	0.40		84	70-130	5	20	03/15/14	
Surrogate: DCPAA	53			58		92	70-130			03/15/14	

Matrix Spike (A403154-MS1), Source: A4C0842-03

2,4,5-T	4.4	1.0	ug/L	4.0	ND	103	70-130			03/14/14	
2,4,5-TP (Silvex)	0.73	1.0	ug/L	0.80	ND	92	70-130			03/14/14	
2,4-D	0.40	10	ug/L	0.40	ND	101	70-130			03/14/14	
Bentazon	8.6	2.0	ug/L	8.0	ND	107	70-130			03/14/14	
Dalapon	7.9	10	ug/L	4.0	ND	96	70-130			03/14/14	
Dicamba	5.7	1.5	ug/L	6.0	ND	95	70-130			03/14/14	
Dinoseb	0.82	2.0	ug/L	0.80	ND	102	70-130			03/14/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	92	70-130			03/14/14	
Picloram	0.48	1.0	ug/L	0.40	ND	119	70-130			03/14/14	
Surrogate: DCPAA	52			58		90	70-130			03/14/14	

Matrix Spike Dup (A403154-MSD1), Source: A4C0842-03

2,4,5-T	4.4	1.0	ug/L	4.0	ND	104	70-130	0	20	03/14/14	
2,4,5-TP (Silvex)	0.74	1.0	ug/L	0.80	ND	92	70-130	0	20	03/14/14	
2,4-D	0.40	10	ug/L	0.40	ND	100	70-130	0	20	03/14/14	
Bentazon	8.4	2.0	ug/L	8.0	ND	106	70-130	1	20	03/14/14	
Dalapon	8.1	10	ug/L	4.0	ND	102	70-130	3	20	03/14/14	
Dicamba	5.7	1.5	ug/L	6.0	ND	95	70-130	0	20	03/14/14	
Dinoseb	0.82	2.0	ug/L	0.80	ND	103	70-130	1	20	03/14/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	92	70-130	0	20	03/14/14	
Picloram	0.43	1.0	ug/L	0.40	ND	106	70-130	11	20	03/14/14	
Surrogate: DCPAA	53			58		91	70-130			03/14/14	

EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A403247-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							03/19/14	
1,1,1-Trichloroethane	ND	0.50	ug/L							03/19/14	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							03/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							03/19/14	
1,1,2-Trichloroethane	ND	0.50	ug/L							03/19/14	
1,1-Dichloroethane	ND	0.50	ug/L							03/19/14	
1,1-Dichloroethene	ND	0.50	ug/L							03/19/14	
1,1-Dichloropropene	ND	0.50	ug/L							03/19/14	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							03/19/14	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							03/19/14	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							03/19/14	
1,2-Dichlorobenzene	ND	0.50	ug/L							03/19/14	
1,2-Dichloroethane	ND	0.50	ug/L							03/19/14	
1,2-Dichloropropane	ND	0.50	ug/L							03/19/14	
1,3,5-Trimethylbenzene	ND	0.50	ug/L							03/19/14	
1,3-Dichlorobenzene	ND	0.50	ug/L							03/19/14	
1,3-Dichloropropane	ND	0.50	ug/L							03/19/14	
1,4-Dichlorobenzene	ND	0.50	ug/L							03/19/14	
2,2-Dichloropropane	ND	0.50	ug/L							03/19/14	
2-Butanone	ND	5.0	ug/L							03/19/14	
2-Chlorotoluene	ND	0.50	ug/L							03/19/14	
2-Hexanone	ND	10	ug/L							03/19/14	
4-Chlorotoluene	ND	0.50	ug/L							03/19/14	
4-Methyl-2-pentanone	ND	5.0	ug/L							03/19/14	
Acetone	ND	10	ug/L							03/19/14	
Benzene	ND	0.50	ug/L							03/19/14	
Bromobenzene	ND	0.50	ug/L							03/19/14	
Bromochloromethane	ND	0.50	ug/L							03/19/14	
Bromodichloromethane	ND	0.50	ug/L							03/19/14	
Bromoform	ND	0.50	ug/L							03/19/14	
Bromomethane	ND	0.50	ug/L							03/19/14	
Carbon Tetrachloride	ND	0.50	ug/L							03/19/14	
Chlorobenzene	ND	0.50	ug/L							03/19/14	
Chloroethane	ND	0.50	ug/L							03/19/14	
Chloroform	ND	0.50	ug/L							03/19/14	
Chloromethane	ND	0.50	ug/L							03/19/14	
cis-1,2-Dichloroethene	ND	0.50	ug/L							03/19/14	
cis-1,3-Dichloropropene	ND	0.50	ug/L							03/19/14	
Dibromochloromethane	ND	0.50	ug/L							03/19/14	
Dibromomethane	ND	0.50	ug/L							03/19/14	
Dichlorodifluoromethane	ND	0.50	ug/L							03/19/14	
Dichloromethane	ND	0.50	ug/L							03/19/14	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							03/19/14	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							03/19/14	
Ethylbenzene	ND	0.50	ug/L							03/19/14	
Hexachlorobutadiene	ND	0.50	ug/L							03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A403247-BLK1)

Isopropylbenzene	ND	0.50	ug/L							03/19/14	
m,p-Xylenes	ND	0.50	ug/L							03/19/14	
Methyl-t-butyl ether	ND	0.50	ug/L							03/19/14	
Naphthalene	ND	0.50	ug/L							03/19/14	
n-Butylbenzene	ND	0.50	ug/L							03/19/14	
n-Propylbenzene	ND	0.50	ug/L							03/19/14	
o-Xylene	ND	0.50	ug/L							03/19/14	
p-Isopropyltoluene	ND	0.50	ug/L							03/19/14	
sec-Butylbenzene	ND	0.50	ug/L							03/19/14	
Styrene	ND	0.50	ug/L							03/19/14	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							03/19/14	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							03/19/14	
tert-Butylbenzene	ND	0.50	ug/L							03/19/14	
Tetrachloroethene (PCE)	ND	0.50	ug/L							03/19/14	
Toluene	ND	0.50	ug/L							03/19/14	
trans-1,2-Dichloroethene	ND	0.50	ug/L							03/19/14	
trans-1,3-Dichloropropene	ND	0.50	ug/L							03/19/14	
Trichloroethene (TCE)	ND	0.50	ug/L							03/19/14	
Trichlorofluoromethane	ND	5.0	ug/L							03/19/14	
Vinyl Chloride	ND	0.50	ug/L							03/19/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		95	70-130			03/19/14	
Surrogate: Bromofluorobenzene	49			50		99	70-130			03/19/14	

Blank Spike (A403247-BS1)

1,1,1,2-Tetrachloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,1,1-Trichloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,1,2,2-Tetrachloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.7	10	ug/L	10		97	70-130			03/19/14	
1,1,2-Trichloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,1-Dichloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,1-Dichloroethene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
1,1-Dichloropropene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,2,3-Trichlorobenzene	9.5	0.50	ug/L	10		95	70-130			03/19/14	
1,2,4-Trichlorobenzene	9.5	0.50	ug/L	10		95	70-130			03/19/14	
1,2,4-Trimethylbenzene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
1,2-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
1,2-Dichloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,2-Dichloropropane	9.9	0.50	ug/L	10		99	70-130			03/19/14	
1,3,5-Trimethylbenzene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,3-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
1,3-Dichloropropane	9.9	0.50	ug/L	10		99	70-130			03/19/14	
1,4-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
2,2-Dichloropropane	8.9	0.50	ug/L	10		89	70-130			03/19/14	
2-Butanone	11	5.0	ug/L	10		106	70-130			03/19/14	
2-Chlorotoluene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
2-Hexanone	10	10	ug/L	10		101	70-130			03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A403247-BS1)

4-Chlorotoluene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
4-Methyl-2-pentanone	10	5.0	ug/L	10		101	70-130			03/19/14	
Acetone	11	10	ug/L	10		110	70-130			03/19/14	
Benzene	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Bromobenzene	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Bromochloromethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
Bromodichloromethane	10	0.50	ug/L	10		101	70-130			03/19/14	
Bromoform	11	0.50	ug/L	10		108	70-130			03/19/14	
Bromomethane	11	0.50	ug/L	10		107	70-130			03/19/14	
Carbon Tetrachloride	9.7	0.50	ug/L	10		97	70-130			03/19/14	
Chlorobenzene	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Chloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
Chloroform	9.8	0.50	ug/L	10		98	70-130			03/19/14	
Chloromethane	9.7	0.50	ug/L	10		97	70-130			03/19/14	
cis-1,2-Dichloroethene	10	0.50	ug/L	10		100	70-130			03/19/14	
cis-1,3-Dichloropropene	10	0.50	ug/L	10		100	70-130			03/19/14	
Dibromochloromethane	10	0.50	ug/L	10		103	70-130			03/19/14	
Dibromomethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
Dichlorodifluoromethane	9.2	0.50	ug/L	10		92	70-130			03/19/14	
Dichloromethane	10	0.50	ug/L	10		100	70-130			03/19/14	
Di-isopropyl ether (DIPE)	9.9	3.0	ug/L	10		99	70-130			03/19/14	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		100	70-130			03/19/14	
Ethylbenzene	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Hexachlorobutadiene	9.3	0.50	ug/L	10		93	70-130			03/19/14	
Isopropylbenzene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
m,p-Xylenes	20	0.50	ug/L	20		98	70-130			03/19/14	
Methyl-t-butyl ether	20	0.50	ug/L	20		100	70-130			03/19/14	
Naphthalene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
n-Butylbenzene	9.4	0.50	ug/L	10		94	70-130			03/19/14	
n-Propylbenzene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
o-Xylene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
p-Isopropyltoluene	9.6	0.50	ug/L	10		96	70-130			03/19/14	
sec-Butylbenzene	9.6	0.50	ug/L	10		96	70-130			03/19/14	
Styrene	9.4	0.50	ug/L	10		94	70-130			03/19/14	
tert-Amyl Methyl Ether (TAME)	9.6	3.0	ug/L	10		96	70-130			03/19/14	
tert-Butyl alcohol (TBA)	10	2.0	ug/L	10		104	70-130			03/19/14	
tert-Butylbenzene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
Tetrachloroethene (PCE)	9.7	0.50	ug/L	10		97	70-130			03/19/14	
Toluene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		100	70-130			03/19/14	
trans-1,3-Dichloropropene	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Trichloroethene (TCE)	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Trichlorofluoromethane	9.5	5.0	ug/L	10		95	70-130			03/19/14	
Vinyl Chloride	9.6	0.50	ug/L	10		96	70-130			03/19/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		96	70-130			03/19/14	
Surrogate: Bromofluorobenzene	48			50		96	70-130			03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A403247-BSD1)

1,1,1,2-Tetrachloroethane	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
1,1,1-Trichloroethane	9.6	0.50	ug/L	10		96	70-130	3	30	03/19/14	
1,1,2,2-Tetrachloroethane	9.6	0.50	ug/L	10		96	70-130	3	30	03/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.4	10	ug/L	10		94	70-130	3	30	03/19/14	
1,1,2-Trichloroethane	9.7	0.50	ug/L	10		97	70-130	2	30	03/19/14	
1,1-Dichloroethane	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
1,1-Dichloroethene	9.5	0.50	ug/L	10		95	70-130	2	30	03/19/14	
1,1-Dichloropropene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
1,2,3-Trichlorobenzene	9.4	0.50	ug/L	10		94	70-130	1	30	03/19/14	
1,2,4-Trichlorobenzene	9.4	0.50	ug/L	10		94	70-130	1	30	03/19/14	
1,2,4-Trimethylbenzene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
1,2-Dichlorobenzene	9.6	0.50	ug/L	10		96	70-130	1	30	03/19/14	
1,2-Dichloroethane	9.6	0.50	ug/L	10		96	70-130	1	30	03/19/14	
1,2-Dichloropropane	9.7	0.50	ug/L	10		97	70-130	1	30	03/19/14	
1,3,5-Trimethylbenzene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
1,3-Dichlorobenzene	9.6	0.50	ug/L	10		96	70-130	1	30	03/19/14	
1,3-Dichloropropane	9.7	0.50	ug/L	10		97	70-130	2	30	03/19/14	
1,4-Dichlorobenzene	9.6	0.50	ug/L	10		96	70-130	1	30	03/19/14	
2,2-Dichloropropane	8.5	0.50	ug/L	10		85	70-130	4	30	03/19/14	
2-Butanone	9.6	5.0	ug/L	10		96	70-130	11	30	03/19/14	
2-Chlorotoluene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
2-Hexanone	9.3	10	ug/L	10		93	70-130	8	30	03/19/14	
4-Chlorotoluene	9.6	0.50	ug/L	10		96	70-130	1	30	03/19/14	
4-Methyl-2-pentanone	9.4	5.0	ug/L	10		94	70-130	8	30	03/19/14	
Acetone	9.5	10	ug/L	10		95	70-130	14	30	03/19/14	
Benzene	9.6	0.50	ug/L	10		96	70-130	3	30	03/19/14	
Bromobenzene	9.6	0.50	ug/L	10		96	70-130	3	30	03/19/14	
Bromochloromethane	9.9	0.50	ug/L	10		99	70-130	1	30	03/19/14	
Bromodichloromethane	9.8	0.50	ug/L	10		98	70-130	2	30	03/19/14	
Bromoform	10	0.50	ug/L	10		104	70-130	4	30	03/19/14	
Bromomethane	11	0.50	ug/L	10		106	70-130	0	30	03/19/14	
Carbon Tetrachloride	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
Chlorobenzene	9.8	0.50	ug/L	10		98	70-130	2	30	03/19/14	
Chloroethane	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
Chloroform	9.7	0.50	ug/L	10		97	70-130	1	30	03/19/14	
Chloromethane	9.3	0.50	ug/L	10		93	70-130	5	30	03/19/14	
cis-1,2-Dichloroethene	9.8	0.50	ug/L	10		98	70-130	3	30	03/19/14	
cis-1,3-Dichloropropene	9.7	0.50	ug/L	10		97	70-130	2	30	03/19/14	
Dibromochloromethane	10	0.50	ug/L	10		101	70-130	2	30	03/19/14	
Dibromomethane	9.7	0.50	ug/L	10		97	70-130	1	30	03/19/14	
Dichlorodifluoromethane	9.5	0.50	ug/L	10		95	70-130	4	30	03/19/14	
Dichloromethane	9.8	0.50	ug/L	10		98	70-130	1	30	03/19/14	
Di-isopropyl ether (DIPE)	9.6	3.0	ug/L	10		96	70-130	2	30	03/19/14	
Ethyl tert-Butyl Ether (ETBE)	9.8	0.50	ug/L	10		98	70-130	2	30	03/19/14	
Ethylbenzene	9.6	0.50	ug/L	10		96	70-130	3	30	03/19/14	
Hexachlorobutadiene	9.1	0.50	ug/L	10		91	70-130	2	30	03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A403247-BSD1)

Isopropylbenzene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
m,p-Xylenes	19	0.50	ug/L	20		96	70-130	2	30	03/19/14	
Methyl-t-butyl ether	20	0.50	ug/L	20		98	70-130	2	30	03/19/14	
Naphthalene	9.5	0.50	ug/L	10		95	70-130	2	30	03/19/14	
n-Butylbenzene	9.2	0.50	ug/L	10		92	70-130	1	30	03/19/14	
n-Propylbenzene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
o-Xylene	9.7	0.50	ug/L	10		97	70-130	1	30	03/19/14	
p-Isopropyltoluene	9.5	0.50	ug/L	10		95	70-130	1	30	03/19/14	
sec-Butylbenzene	9.5	0.50	ug/L	10		95	70-130	1	30	03/19/14	
Styrene	8.6	0.50	ug/L	10		86	70-130	8	30	03/19/14	
tert-Amyl Methyl Ether (TAME)	9.4	3.0	ug/L	10		94	70-130	2	30	03/19/14	
tert-Butyl alcohol (TBA)	9.4	2.0	ug/L	10		94	70-130	10	30	03/19/14	
tert-Butylbenzene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
Tetrachloroethene (PCE)	9.5	0.50	ug/L	10		95	70-130	1	30	03/19/14	
Toluene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
trans-1,2-Dichloroethene	9.7	0.50	ug/L	10		97	70-130	3	30	03/19/14	
trans-1,3-Dichloropropene	9.7	0.50	ug/L	10		97	70-130	3	30	03/19/14	
Trichloroethene (TCE)	9.7	0.50	ug/L	10		97	70-130	2	30	03/19/14	
Trichlorofluoromethane	9.3	5.0	ug/L	10		93	70-130	2	30	03/19/14	
Vinyl Chloride	9.8	0.50	ug/L	10		98	70-130	2	30	03/19/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		96	70-130			03/19/14	
Surrogate: Bromofluorobenzene	48			50		97	70-130			03/19/14	

EPA 525.2 - Quality Control

Batch: A403279

Prepared: 03/18/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank (A403279-BLK1)

Alachlor	ND	1.0	ug/L							03/19/14	
Atrazine	ND	0.50	ug/L							03/19/14	
Benzo(a)pyrene	ND	0.10	ug/L							03/19/14	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							03/19/14	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							03/19/14	
Bromacil	ND	10	ug/L							03/19/14	
Butachlor	ND	0.38	ug/L							03/19/14	
Diazinon	ND	0.25	ug/L							03/19/14	
Dimethoate	ND	10	ug/L							03/19/14	
Metolachlor	ND	0.50	ug/L							03/19/14	
Metribuzin	ND	0.50	ug/L							03/19/14	
Molinate	ND	2.0	ug/L							03/19/14	
Prometryn	ND	2.0	ug/L							03/19/14	
Propachlor	ND	0.50	ug/L							03/19/14	
Simazine	ND	1.0	ug/L							03/19/14	
Thiobencarb	ND	1.0	ug/L							03/19/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.3			5.1		106	70-130			03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A403279

Prepared: 03/18/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A403279-BS1)

Alachlor	0.53	1.0	ug/L	0.50		105	70-130			03/19/14	
Atrazine	0.53	0.50	ug/L	0.50		106	70-130			03/19/14	
Benzo(a)pyrene	0.099	0.10	ug/L	0.10		98	70-130			03/19/14	
Bis(2-ethylhexyl) adipate	3.3	3.0	ug/L	3.0		110	70-130			03/19/14	
Bis(2-ethylhexyl) phthalate	4.1	3.0	ug/L	3.0		134	70-130			03/19/14	BS High
Bromacil	2.2	10	ug/L	2.0		111	70-130			03/19/14	
Butachlor	1.3	0.38	ug/L	1.3		104	70-130			03/19/14	
Diazinon	0.043	0.25	ug/L	0.050		86	70-130			03/19/14	
Dimethoate	0.47	10	ug/L	0.50		94	70-130			03/19/14	
Metolachlor	2.7	0.50	ug/L	2.5		105	70-130			03/19/14	
Metribuzin	3.1	0.50	ug/L	2.5		121	70-130			03/19/14	
Molinate	2.9	2.0	ug/L	2.5		116	70-130			03/19/14	
Prometryn	0.62	2.0	ug/L	0.50		122	70-130			03/19/14	
Propachlor	2.9	0.50	ug/L	2.5		115	70-130			03/19/14	
Simazine	0.38	1.0	ug/L	0.35		107	70-130			03/19/14	
Thiobencarb	0.56	1.0	ug/L	0.50		110	70-130			03/19/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.6			5.0		112	70-130			03/19/14	

Blank Spike Dup (A403279-BSD1)

Alachlor	0.54	1.0	ug/L	0.50		109	70-130	3	30	03/19/14	
Atrazine	0.55	0.50	ug/L	0.50		109	70-130	3	30	03/19/14	
Benzo(a)pyrene	0.097	0.10	ug/L	0.10		97	70-130	2	30	03/19/14	
Bis(2-ethylhexyl) adipate	3.3	3.0	ug/L	3.0		111	70-130	0	30	03/19/14	
Bis(2-ethylhexyl) phthalate	4.0	3.0	ug/L	3.0		132	70-130	2	30	03/19/14	BS High
Bromacil	2.4	10	ug/L	2.0		122	70-130	8	30	03/19/14	
Butachlor	1.3	0.38	ug/L	1.2		105	70-130	0	30	03/19/14	
Diazinon	0.049	0.25	ug/L	0.050		98	70-130	12	30	03/19/14	
Dimethoate	0.53	10	ug/L	0.50		105	70-130	11	30	03/19/14	
Metolachlor	2.7	0.50	ug/L	2.5		108	70-130	2	30	03/19/14	
Metribuzin	3.1	0.50	ug/L	2.5		122	70-130	0	30	03/19/14	
Molinate	2.8	2.0	ug/L	2.5		110	70-130	6	30	03/19/14	
Prometryn	0.61	2.0	ug/L	0.50		122	70-130	1	30	03/19/14	
Propachlor	2.8	0.50	ug/L	2.5		113	70-130	2	30	03/19/14	
Simazine	0.40	1.0	ug/L	0.35		115	70-130	6	30	03/19/14	
Thiobencarb	0.56	1.0	ug/L	0.50		113	70-130	1	30	03/19/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.5			5.0		109	70-130			03/19/14	

Matrix Spike (A403279-MS1), Source: A4C1103-01

Alachlor	0.52	1.0	ug/L	0.49	ND	106	70-130			03/19/14	
Atrazine	0.52	0.50	ug/L	0.49	ND	106	70-130			03/19/14	
Benzo(a)pyrene	0.097	0.10	ug/L	0.098	ND	99	70-130			03/19/14	
Bis(2-ethylhexyl) adipate	3.5	3.0	ug/L	3.0	ND	118	70-130			03/19/14	
Bis(2-ethylhexyl) phthalate	4.1	3.0	ug/L	3.0	ND	114	70-130			03/19/14	
Bromacil	2.6	10	ug/L	2.0	ND	122	70-130			03/19/14	
Butachlor	1.4	0.38	ug/L	1.2	ND	111	70-130			03/19/14	
Diazinon	0.049	0.25	ug/L	0.049	ND	100	70-130			03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A403279

Prepared: 03/18/2014

Prep Method: EPA 525.2

Analyst: KHH

Matrix Spike (A403279-MS1), Source: A4C1103-01

Dimethoate	0.54	10	ug/L	0.49	ND	111	70-130			03/19/14	
Metolachlor	2.6	0.50	ug/L	2.5	ND	107	70-130			03/19/14	
Metribuzin	3.0	0.50	ug/L	2.5	ND	122	70-130			03/19/14	
Molinate	2.6	2.0	ug/L	2.5	ND	105	70-130			03/19/14	
Prometryn	0.59	2.0	ug/L	0.49	ND	120	70-130			03/19/14	
Propachlor	2.7	0.50	ug/L	2.5	ND	110	70-130			03/19/14	
Simazine	0.40	1.0	ug/L	0.34	ND	115	70-130			03/19/14	
Thiobencarb	0.56	1.0	ug/L	0.49	ND	113	70-130			03/19/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.9			4.9		100	70-130			03/19/14	

EPA 531.1 - Quality Control

Batch: A403175

Prepared: 03/14/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank (A403175-BLK1)

3-Hydroxycarbofuran	ND	3.0	ug/L							03/14/14	
Aldicarb	ND	3.0	ug/L							03/14/14	
Aldicarb Sulfone	ND	2.0	ug/L							03/14/14	
Aldicarb Sulfoxide	ND	3.0	ug/L							03/14/14	
Carbaryl	ND	5.0	ug/L							03/14/14	
Carbofuran	ND	5.0	ug/L							03/14/14	
Methiocarb	ND	2.0	ug/L							03/14/14	
Methomyl	ND	2.0	ug/L							03/14/14	
Oxamyl	ND	20	ug/L							03/14/14	
Propoxur	ND	2.0	ug/L							03/14/14	

Blank Spike (A403175-BS1)

3-Hydroxycarbofuran	4.4	3.0	ug/L	4.0		109	80-120			03/14/14	
Aldicarb	4.0	3.0	ug/L	4.0		101	80-120			03/14/14	
Aldicarb Sulfone	4.3	2.0	ug/L	4.0		106	80-120			03/14/14	
Aldicarb Sulfoxide	4.2	3.0	ug/L	4.0		104	80-120			03/14/14	
Carbaryl	4.3	5.0	ug/L	4.0		107	80-120			03/14/14	
Carbofuran	4.3	5.0	ug/L	4.0		108	80-120			03/14/14	
Methiocarb	4.3	2.0	ug/L	4.0		107	80-120			03/14/14	
Methomyl	4.2	2.0	ug/L	4.0		104	80-120			03/14/14	
Oxamyl	4.2	20	ug/L	4.0		105	80-120			03/14/14	
Propoxur	4.2	2.0	ug/L	4.0		106	80-120			03/14/14	

Blank Spike Dup (A403175-BSD1)

3-Hydroxycarbofuran	3.8	3.0	ug/L	4.0		95	80-120	14	20	03/14/14	
Aldicarb	3.5	3.0	ug/L	4.0		87	80-120	15	20	03/14/14	
Aldicarb Sulfone	3.8	2.0	ug/L	4.0		94	80-120	12	20	03/14/14	
Aldicarb Sulfoxide	3.8	3.0	ug/L	4.0		94	80-120	10	20	03/14/14	
Carbaryl	3.9	5.0	ug/L	4.0		97	80-120	10	20	03/14/14	
Carbofuran	3.8	5.0	ug/L	4.0		95	80-120	13	20	03/14/14	
Methiocarb	3.7	2.0	ug/L	4.0		93	80-120	14	20	03/14/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A403175

Prepared: 03/14/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank Spike Dup (A403175-BSD1)

Methomyl	3.7	2.0	ug/L	4.0		93	80-120	11	20	03/14/14	
Oxamyl	3.7	20	ug/L	4.0		93	80-120	12	20	03/14/14	
Propoxur	3.7	2.0	ug/L	4.0		93	80-120	13	20	03/14/14	

Matrix Spike (A403175-MS1), Source: A4C1026-01

3-Hydroxycarbofuran	4.1	3.0	ug/L	4.0	ND	102	65-135			03/14/14	
Aldicarb	4.0	3.0	ug/L	4.0	ND	99	65-135			03/14/14	
Aldicarb Sulfone	4.0	2.0	ug/L	4.0	ND	100	65-135			03/14/14	
Aldicarb Sulfoxide	3.9	3.0	ug/L	4.0	ND	97	65-135			03/14/14	
Carbaryl	4.0	5.0	ug/L	4.0	ND	99	65-135			03/14/14	
Carbofuran	3.8	5.0	ug/L	4.0	ND	96	65-135			03/14/14	
Methiocarb	3.9	2.0	ug/L	4.0	ND	98	65-135			03/14/14	
Methomyl	4.1	2.0	ug/L	4.0	ND	102	65-135			03/14/14	
Oxamyl	4.0	20	ug/L	4.0	ND	101	65-135			03/14/14	
Propoxur	4.0	2.0	ug/L	4.0	ND	95	65-135			03/14/14	

EPA 547 - Quality Control

Batch: A403209

Prepared: 03/17/2014

Prep Method: EPA 547

Analyst: RJB

Blank (A403209-BLK1)

Glyphosate	ND	25	ug/L							03/17/14	
Surrogate: AMPA	100			100		103	70-130			03/17/14	

Blank Spike (A403209-BS1)

Glyphosate	110	25	ug/L	100		111	70-130			03/17/14	
Surrogate: AMPA	100			100		105	70-130			03/17/14	

Blank Spike Dup (A403209-BSD1)

Glyphosate	120	25	ug/L	100		116	70-130	4	30	03/17/14	
Surrogate: AMPA	110			100		110	70-130			03/17/14	

Matrix Spike (A403209-MS1), Source: A4C0842-02

Glyphosate	110	25	ug/L	100	ND	112	70-130			03/17/14	
Surrogate: AMPA	110			100		103	70-130			03/17/14	

Matrix Spike Dup (A403209-MSD1), Source: A4C0842-02

Glyphosate	110	25	ug/L	100	ND	108	70-130	4	30	03/17/14	
Surrogate: AMPA	100			100		100	70-130			03/17/14	

EPA 548.1 - Quality Control

Batch: A403241

Prepared: 03/17/2014

Prep Method: EPA 548.1

Analyst: KHH

Blank (A403241-BLK1)

Endothall	ND	45	ug/L							03/18/14	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 548.1 - Quality Control

Batch: A403241

Prepared: 03/17/2014

Prep Method: EPA 548.1

Analyst: KHH

Blank Spike (A403241-BS1)

Endothall	14	45	ug/L	20		72	60-111			03/18/14	
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Blank Spike Dup (A403241-BSD1)

Endothall	15	45	ug/L	20		75	60-111	5	46	03/18/14	
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Matrix Spike (A403241-MS1), Source: A4C1103-01

Endothall	ND	45	ug/L	20	ND	0	10-122			03/18/14	MS1.0 Low
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EPA 549.2 - Quality Control

Batch: A403185

Prepared: 03/15/2014

Prep Method: EPA 549.2

Analyst: PYA

Blank (A403185-BLK1)

Diquat	ND	4.0	ug/L							03/19/14	
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Blank Spike (A403185-BS1)

Diquat	3.3	4.0	ug/L	4.0		83	70-130			03/19/14	
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Blank Spike Dup (A403185-BSD1)

Diquat	3.4	4.0	ug/L	4.0		85	70-130	3	30	03/19/14	
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Matrix Spike (A403185-MS1), Source: A4C1015-03

Diquat	3.3	4.0	ug/L	4.0	ND	82	70-130			03/19/14	
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Matrix Spike (A403185-MS2), Source: A4C1015-04

Diquat	3.3	4.0	ug/L	4.0	ND	81	70-130			03/19/14	
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Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of Oregon - NELAP	4021	State of Washington	C997
State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA

BSK is not accredited under the NELAC program for the following parameters: **NA**

A4C1132



Monterey Bay Analytical

Monte6227



03142014

Turnaround: Standard

Due Date: 3/21/2014

Sample Integrity

BSK Bottles: Yes No Page 1 of 1



COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$		Were correct containers and preservatives received for the tests requested?																	
		Yes	No NA	Yes	No NA															
COC Info	If samples were taken today, is there evidence that chilling has begun?		Were there bubbles in the VOA vials? (Volatiles Only)																	
	Yes	No NA	Yes	No NA																
COC Info	Did all bottles arrive unbroken and intact?		Was a sufficient amount of sample received?																	
	Yes	No	Yes	No NA																
COC Info	Did all bottle labels agree with COC?		Do samples have a hold time <72 hours?																	
	Yes	No	Yes	No NA																
COC Info	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?		Was PM notified of discrepancies? PM: _____ By/Time: _____																	
	Yes	No NA	Yes	No NA																
Bottles Received <small>means preservation/chlorine checks are either N/A or are performed in the lab</small>	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?																	
	Bactl $\text{Na}_2\text{S}_2\text{O}_3$	—	—																	
	None (P) ^{White Cap}	—	—																	
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y	N																
	HNO_3 (P) ^{Red Cap}	—	—																	
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y	N																
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y	N																
	$\text{NaOH} + \text{ZnAc}$ (P)	pH ≥ 9	Y	N																
	Dissolved Oxygen 300ml (g)	—	—																	
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—																	
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—																	
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—																	
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—																	
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—																	
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—																	
	$\text{Na}_2\text{S}_2\text{O}_3 + \text{MCAA}$ (CG) ^{Orange Label} 531	pH = 3	Y	N																
	NH_4Cl (AG) ^{Purple Label} 552	—	—																	
	EDA (AG) ^{Brown Label} DBPs	—	—																	
	Ascorbic + Maleic (AG) ^{LI Green Label} 524.3	—	—																	
	HCL (CG) 524.2, BTEX Gas, MTBE, 8260/624	—	—																	
Buffer pH 4 (CG)	—	—																		
None (CG)	—	—																		
H_3PO_4 (CG) ^{Salmon Label}	—	—																		
Other:																				
Asbestos 1Liter Plastic w/ Foil	—	—																		
Low Level Hg / Metals Double Baggie	—	—																		
Bottled Water	—	—																		
Clear Glass Jar. 250 / 500 / 1 Liter	—	—																		
Soil Tube Brass / Steel / Plastic	—	—																		
Tedlar Bag / Plastic Bag	—	—																		
Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials														
	S P			S P																
	S P			S P																
Comments	2 rows have small air bubbles <i>SLB 2/14/11</i>																			

Labeled by: JHD @ 1221

Labels checked by: G-521 @ 1248

RUSH Paged by: _____

CERTIFICATE OF ANALYSIS

Client: Monterey Bay Analytical Services 4 Justin Court, Suite D Monterey CA, 93940	Report Date: 03/21/14 16:22
Attention: David Holland	Received Date: 03/14/14 09:20
Phone: (831) 375-6227	Turn Around: 5 workdays
Fax: (831) 641-0734	Client Project: Cal Am
Work Order(s): 4C14027	

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear David Holland :

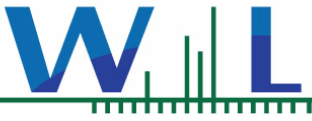
Enclosed are the results of analyses for samples received 03/14/14 09:20 with the Chain of Custody document. The samples were received in good condition, at 3.4 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager





Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

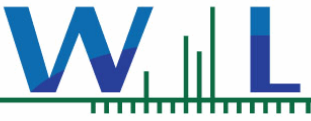
ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
CX-B2WQ Zone #3 (104-114 Ft bgs)	Josh Soboleu	12792	4C14027-01	Water	03/11/14 15:45

ANALYSES

Anions by IC, EPA Method 300.0/300.1/326

Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

4C14027-01 CX-B2WQ Zone #3 (104-114 Ft bgs)

Sampled: 03/11/14 15:45

Sampled By: Josh Soboleu

Matrix: Water

Sample Note: 12792

Anions by IC, EPA Method 300.0/300.1/326

Method: EPA 9056A

Batch: W4C0833

Prepared: 03/15/14 10:30

Analyst: Alice T. Lee

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Iodide	ND	250	ug/l	25	03/15/14 15:05	M-02

Chlorinated Pesticides and/or PCBs

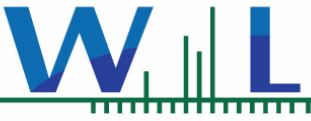
Method: EPA 508

Batch: W4C0838

Prepared: 03/15/14 12:16

Analyst: Maxwell Wang

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
4,4'-DDD	ND	0.010	ug/l	1	03/19/14 11:34	
4,4'-DDE	ND	0.010	ug/l	1	03/19/14 11:34	
4,4'-DDT	ND	0.010	ug/l	1	03/19/14 11:34	
Aldrin	ND	0.010	ug/l	1	03/19/14 11:34	
alpha-BHC	ND	0.010	ug/l	1	03/19/14 11:34	
Aroclor 1016	ND	0.10	ug/l	1	03/19/14 02:06	
Aroclor 1221	ND	0.10	ug/l	1	03/19/14 02:06	
Aroclor 1232	ND	0.10	ug/l	1	03/19/14 02:06	
Aroclor 1242	ND	0.10	ug/l	1	03/19/14 02:06	
Aroclor 1248	ND	0.10	ug/l	1	03/19/14 02:06	
Aroclor 1254	ND	0.10	ug/l	1	03/19/14 02:06	
Aroclor 1260	ND	0.10	ug/l	1	03/19/14 02:06	
beta-BHC	ND	0.010	ug/l	1	03/19/14 11:34	
Chlordane (tech)	ND	0.10	ug/l	1	03/19/14 02:06	
Chlorothalonil	ND	0.050	ug/l	1	03/19/14 02:06	
delta-BHC	ND	0.010	ug/l	1	03/19/14 11:34	
Dieldrin	ND	0.010	ug/l	1	03/19/14 11:34	
Endosulfan I	ND	0.010	ug/l	1	03/19/14 11:34	
Endosulfan II	ND	0.010	ug/l	1	03/19/14 11:34	
Endosulfan sulfate	ND	0.010	ug/l	1	03/19/14 11:34	
Endrin	ND	0.010	ug/l	1	03/19/14 11:34	
Endrin aldehyde	ND	0.010	ug/l	1	03/19/14 11:34	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	03/19/14 11:34	
Heptachlor	ND	0.010	ug/l	1	03/19/14 11:34	
Heptachlor epoxide	ND	0.010	ug/l	1	03/19/14 11:34	
Hexachlorobenzene	ND	0.010	ug/l	1	03/19/14 02:06	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	03/19/14 02:06	
Methoxychlor	ND	0.010	ug/l	1	03/19/14 11:34	
PCBs, Total	ND	0.50	ug/l	1	03/19/14 02:06	
Propachlor	ND	0.050	ug/l	1	03/19/14 02:06	
Toxaphene	ND	1.0	ug/l	1	03/19/14 02:06	
Trifluralin	ND	0.010	ug/l	1	03/19/14 02:06	
Surr: Decachlorobiphenyl	76 %	Conc:0.0727	70-130	%		
Surr: Tetrachloro-meta-xylene	118 %	Conc:0.112	70-130	%		



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4 Justin Court, Suite D
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4C14027-01 CX-B2WQ Zone #3 (104-114 Ft bgs)

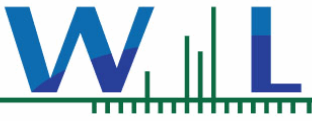
Sampled: 03/11/14 15:45

Sampled By: Josh Soboleu

Matrix: Water

Sample Note: 12792

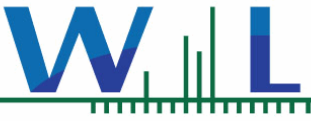
Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

QUALITY CONTROL SECTION



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

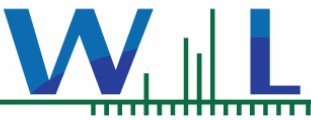
Batch W4C0833 - EPA 9056A

Table with columns: Analyte, Reporting Result, Reporting Limit, Units, Spike Level, Source Result, %REC, % REC Limits, RPD, RPD Limit, Data Qualifiers. Includes rows for Blank (W4C0833-BLK1), LCS (W4C0833-BS1), Matrix Spike (W4C0833-MS1), and Matrix Spike Dup (W4C0833-MSD1).

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4C0838 - EPA 508

Table with columns: Analyte, Reporting Result, Reporting Limit, Units, Spike Level, Source Result, %REC, % REC Limits, RPD, RPD Limit, Data Qualifiers. Includes a long list of analytes such as 4,4'-DDD, Aldrin, and various Aroclors.



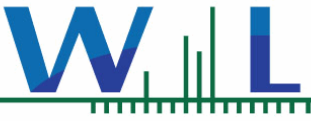
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4C0838 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4C0838-BLK1)										
Analyzed: 03/18/14 22:01										
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
<i>Surr: Decachlorobiphenyl</i>	0.0894		ug/l	0.100		89	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0785		ug/l	0.100		78	70-130			
LCS (W4C0838-BS1)										
Analyzed: 03/19/14 09:01										
4,4'-DDD	0.0875	0.010	ug/l	0.100		88	55-142			
4,4'-DDE	0.0976	0.010	ug/l	0.100		98	49-129			
4,4'-DDT	0.103	0.010	ug/l	0.100		103	54-160			
Aldrin	0.0787	0.010	ug/l	0.100		79	29-115			
alpha-BHC	0.0900	0.010	ug/l	0.100		90	59-131			
beta-BHC	0.0881	0.010	ug/l	0.100		88	63-136			
delta-BHC	0.105	0.010	ug/l	0.100		105	59-137			
Dieldrin	0.0934	0.010	ug/l	0.100		93	59-135			
Endosulfan I	0.0787	0.010	ug/l	0.100		79	28-138			
Endosulfan II	0.0792	0.010	ug/l	0.100		79	53-133			
Endosulfan sulfate	0.0837	0.010	ug/l	0.100		84	58-155			
Endrin	0.0857	0.010	ug/l	0.100		86	57-148			
Endrin aldehyde	0.0801	0.010	ug/l	0.100		80	45-139			
gamma-BHC (Lindane)	0.0846	0.010	ug/l	0.100		85	59-129			
Heptachlor	0.0893	0.010	ug/l	0.100		89	42-136			
Heptachlor epoxide	0.0884	0.010	ug/l	0.100		88	59-134			
Methoxychlor	0.0725	0.010	ug/l	0.100		72	56-167			
<i>Surr: Decachlorobiphenyl</i>	0.0927		ug/l	0.100		93	70-130			
<i>Surr: Tetrachloro-meta-xylene</i>	0.0749		ug/l	0.100		75	70-130			
LCS Dup (W4C0838-BSD1)										
Analyzed: 03/18/14 23:02										
4,4'-DDD	0.0880	0.010	ug/l	0.100		88	55-142	0.5	25	
4,4'-DDE	0.0902	0.010	ug/l	0.100		90	49-129	8	25	
4,4'-DDT	0.103	0.010	ug/l	0.100		103	54-160	0.4	25	
Aldrin	0.0739	0.010	ug/l	0.100		74	29-115	6	25	
alpha-BHC	0.0857	0.010	ug/l	0.100		86	59-131	5	25	
beta-BHC	0.0829	0.010	ug/l	0.100		83	63-136	6	25	
delta-BHC	0.0995	0.010	ug/l	0.100		100	59-137	6	25	
Dieldrin	0.0892	0.010	ug/l	0.100		89	59-135	5	25	
Endosulfan I	0.0723	0.010	ug/l	0.100		72	28-138	8	25	
Endosulfan II	0.0775	0.010	ug/l	0.100		78	53-133	2	25	
Endosulfan sulfate	0.0866	0.010	ug/l	0.100		87	58-155	3	25	
Endrin	0.0725	0.010	ug/l	0.100		72	57-148	17	25	
Endrin aldehyde	0.0658	0.010	ug/l	0.100		66	45-139	20	25	
gamma-BHC (Lindane)	0.0858	0.010	ug/l	0.100		86	59-129	1	25	
Heptachlor	0.0845	0.010	ug/l	0.100		85	42-136	6	25	
Heptachlor epoxide	0.0847	0.010	ug/l	0.100		85	59-134	4	25	
Methoxychlor	0.0822	0.010	ug/l	0.100		82	56-167	13	25	
<i>Surr: Decachlorobiphenyl</i>	0.0893		ug/l	0.100		89	70-130			



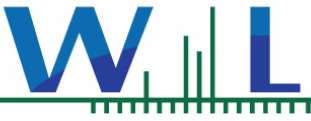
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Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4C0838 - EPA 508

Analyte	Reporting Result	Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W4C0838-BSD1)										
Analyzed: 03/18/14 23:02										
Surr: Tetrachloro-meta-xylene	0.0761		ug/l	0.100		76	70-130			



Monterey Bay Analytical Services
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Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

Notes and Definitions

- M-02** Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
- ND** NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
- NR** Not Reportable
- Dil** Dilution
- dry** Sample results reported on a dry weight basis
- RPD** Relative Percent Difference
- % Rec** Percent Recovery
- Sub** Subcontracted analysis, original report available upon request
- MDL** Method Detection Limit
- MDA** Minimum Detectable Activity
- MRL** Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

pH QC Summary (SM 4500 H+)

Date Analyzed: 3/12/2014

	Value (pH Units)	Result (pH Units)	% Rec	Acceptance Criteria %Rec
IPC	6.86	6.91	100.7	95-105

Sample ID	Sample (pH Units)	Sample Dup (pH Units)	% RPD	Acceptance Criteria % RPD
AB12869	7.1	7.1	0.0	10
AB12875	7.4	7.4	0.0	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
 http://www.MBASinc.com

TDS/TSS QC Summary (SM 2540C/D)

Date Analyzed: 3/13/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC 100	100	111	111	80-120
IPC 500	500	503	100.6	90-110

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12695	ND	ND	0.0	10
AB12775	437	434	0.7	10
AB12817	131	137	4.5	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Differer

ice; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Turbidity QC Summary (EPA 180.1)

Date Analyzed: 3/13/2014

	Value (NTU)	Result (NTU)	% Rec	Acceptance Criteria %Rec
IPC	1.00	1.04	104.0	95-105
IPC	1.00	0.97	97.1	95-105

Sample ID	Sample (NTU)	Sample Dup (NTU)	% RPD	Acceptance Criteria % RPD
AB12871	0.770	0.776	-0.01	10
AB12896	1.490	1.630	-0.09	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

EPA 200.7 QC

Batch # 20140313

Analyte/ WL	Range	IC Blank	Prep Blank	LCS Value	%Rec 85-115%	LCSD Value	%Rec 85-115%	%Diff	IC Verification			QCS (95-105%)		
									Value	Result	%Rec	Value	Result	%Rec
B 249.678	0.05-5ppm	0.01	0.00	1.00	100.4%	1.03	103.1%	2.7%	1	1.02	101.5%	1	0.98	97.8%
B 249.772	0.05-5ppm	0.01	0.01	1.01	100.7%	1.03	103.0%	2.3%	1	1.02	102.0%	1	0.99	98.6%
Ca 317.933	50-300ppm	-5.25	-5.24	49.3	98.5%	50.3	100.7%	2.2%	50	49.5	99.0%	50	48.7	97.4%
Ca 396.847	0.5-50ppm	-0.15	-0.14	49.8	99.7%	50.3	100.6%	0.9%	50	50.2	100.4%	50	48.8	97.6%
Fe 238.204	10ppb-100ppm	-0.64	0.19	998	99.8%	1014	101.4%	1.6%	1000	1003	100.3%	1000	992	99.2%
Fe 259.940	10ppb-100ppm	0.30	-0.50	995	99.5%	1013	101.3%	1.8%	1000	1001	100.1%	1000	993	99.3%
K 766.491	0.5-750ppm	0.20	0.13	9.9	98.6%	10.0	100.4%	1.8%	10	10.0	100.5%	10	9.8	98.0%
Mg 202.582	50-1000ppm	-1.81	-1.83	50.2	100.4%	51.3	102.5%	2.2%	50	50.8	101.6%	50	49.7	99.4%
Mg 279.078	0.5-50ppm	0.04	0.02	48.9	97.8%	50.2	100.4%	2.6%	50	49.8	99.7%	50	49.0	97.9%
Mn 257.610	10ppb-11ppm	-4.82	-5.60	995	99.5%	1016	101.6%	2.1%	1000	1001	100.1%	1000	979	97.9%
Mn 260.568	10ppb-11ppm	-5.16	-5.50	993	99.3%	1012	101.2%	1.9%	1000	999	99.9%	1000	978	97.8%
Na 568.821	50-1000ppm	4.56	4.98	48.4	96.9%	48.9	97.8%	0.9%	50	48.0	95.9%	50	47.3	94.5%
Na 589.592	0.5-50ppm	0.25	0.17	49.6	99.1%	50.2	100.4%	1.3%	50	50.0	100.0%	50	48.6	97.3%
Si 251.611	0.5-200ppm	0.09	0.05	50.0	100.0%	50.9	101.8%	1.7%	50	50.6	101.3%	107	105.5	98.6%
Si 252.411	0.5-200ppm	0.08	0.02	49.7	99.3%	50.7	101.4%	2.1%	50	50.5	100.9%	107	105.3	98.4%

Sample ID AB12759

Analyte/ WL	Sample Value	MS Value	%Rec 70-130%	MSD Value	%Rec 70-130%	%Diff	CCV (90-110%)			%Diff 10%	CC Blank
							Value	Result	%Rec		
B 249.678	0.00	0.97	96.6%	0.98	97.6%	1.1%	1	0.97	96.7%	4.8%	-0.01
B 249.772	0.01	0.97	96.7%	0.98	97.5%	0.8%	1	0.96	96.5%	5.6%	0.00
Ca 317.933	30.0	81.6	103.3%	81.1	102.3%	0.6%	50	47.9	95.8%	3.4%	-5.26
Ca 396.847	31.6	73.7	84.2%	73.2	83.1%	0.7%	50	46.4	92.9%	7.8%	-0.17
Fe 238.204	3	994	99.1%	976	97.3%	1.8%	1000	969	96.9%	3.5%	-1.27
Fe 259.940	4	986	98.2%	967	96.4%	1.9%	1000	953	95.3%	5.0%	-1.91
K 766.491	2.9	12.0	91.8%	11.9	90.7%	0.9%	10	9.3	92.7%	8.1%	0.07
Mg 202.582	8.4	57.7	98.6%	57.9	99.0%	0.3%	50	47.8	95.5%	6.1%	-1.85
Mg 279.078	9.7	57.0	94.5%	57.2	95.0%	0.4%	50	47.7	95.3%	4.5%	0.02
Mn 257.610	-5	954	95.9%	960	96.5%	0.6%	1000	953	95.3%	5.0%	-5.16
Mn 260.568	-4	964	96.8%	962	96.6%	0.2%	1000	957	95.7%	4.3%	-5.22
Na 568.821	39.1	80.5	82.8%	83.1	88.0%	3.2%	50	45.3	90.6%	5.7%	4.82

Na 589.592	41.5	86.4	89.8%	85.5	88.0%	1.0%	50	46.4	92.7%	7.5%	0.17
Si 251.611	40.8	86.8	91.8%	87.4	93.1%	0.7%	50	48.2	96.5%	4.9%	-0.04
Si 252.411	40.6	86.7	92.2%	87.1	93.1%	0.5%	50	48.1	96.3%	4.7%	-0.04

300.0 QC Summary

All units expressed in mg/L

	F	Cl	NO2-N	SO4	Br	NO3-N
	2	20	2	20	2	2
IPC	2.25	19.68	2.07	18.86	2.11	1.99
Recovery 90-110%	112.49	98.38	103.63	94.31	105.41	99.33
CCV1	2.44	20.04	2.09	19.13	2.11	2.00
Recovery 90-110%	122.11	100.20	104.34	95.67	105.54	99.88
RPD 10%	8.20	1.83	0.69	1.43	0.12	0.56
CCV2	2.16	19.62	2.09	19.00	2.10	1.98
Recovery 90-110%	108.15	98.10	104.59	94.98	105.07	99.22
RPD 10%	3.93	0.29	0.92	0.71	0.32	0.11
AB12880	0.28	143.60	0.12	289.58	0.18	23.93
AB12880+LFM	2.45	164.85	1.93	311.15	1.83	26.17
AB12880+LFMD	2.48	164.58	1.93	311.26	1.85	26.15
Average	2.47	164.71	1.93	311.21	1.84	26.16
Recovery 80-120%	109.39	105.58	90.57	108.12	83.36	111.70
RPD 10%	1.21	0.08	0.05	0.02	0.50	0.03
AB12890	0.22	23.67	0.45	125.80	0.00	25.36
AB12890+LFM	2.42	43.76	2.24	144.83	1.66	27.62
AB12890+LFMD	2.42	43.92	2.25	144.95	1.66	27.42
Average	2.42	43.84	2.25	144.89	1.66	27.52
Recovery 80-120%	109.99	100.86	90.08	95.42	82.99	107.99
RPD 10%	0.20	0.19	0.26	0.04	0.20	0.37

PO4-P

2

1.93

96.65

1.96

98.06

1.45

1.96

97.78

1.17

0.00

1.35

1.34

1.35

67.27

0.12

0.00

1.53

1.53

1.53

76.48

0.15

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Phosphorus QC Summary (Hach 8190)

Date: 3/14/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
LCS	0.200	0.209	104.5	90-110
QCS	0.200	0.211	105.5	90-110
CCV	0.200	0.218	109	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12792	0.000	0.200	0.161	0.154	80.5	77	4.4	85-120	10

Note: possible matrix interference observed. Data accepted based on LCS, QCS, and CCV recoveries.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;

RPD = Relative Percent Difference; Rec = Recovery

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Specific Conductance QC Summary (SM 2510B)

Date Analyzed: 3/14/2014

	Value (umhos/cm)	Result (umhos/cm)	% Rec	Acceptance Criteria %Rec
IPC	1412	1412	100.0%	95-105

Sample ID	Sample (umhos/cm)	Sample Dup (umhos/cm)	% RPD	Acceptance Criteria % RPD
AB12816	37640	37400	0.6%	10
AB12872	993	987	0.6%	10
AB12882	1064	1072	0.7%	10
AB12892	878	881	0.3%	10
AB12910	578	570	1.4%	10
AB12920	1338	1319	1.4%	10
AB12923	1765	1760	0.3%	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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TDS/TSS QC Summary (SM 2540C/D)

Date Analyzed: 3/14/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC 100	100	100	100	80-120
IPC 500	500	494	98.8	90-110

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12905	546	540	1.1	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

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Kjehldahl Nitrogen QC Summary (SM 4500-NH3)

Date: 3/17/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	5.0	5.200	104	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12627	2.400	5.000	7.200	7.300	96	98	1.4	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

QC Summary for 200.8

Spiked Sample
ID AB12763

Date Analyzed
Monday, March 17, 2014

	IPC Blank	QCS 50	Prep Blank	LCS	LCSD	LCS/LCSD	Sample	Spiked	MS	MSD	MS-MSD	LFB	LFB	LFB-LFB	IPC Blank
	ug/L	%Rec.	ug/L	% Rec	%Rec	%RPD	ug/L	ug/L	%Rec.	% Rec.	% RPD	% Rec	% Rec	% RPD	ug/L
		85-115%		70-130%	70-130%	20%			70-130%	70-130%	20%	85-115%	85-115%	20%	
Lithium	0.01	101.6	0.07	112.3	117.0	4.09	1.0	50	120.2	111.9	7.15	99.4	111.2	11.21	0.03
Aluminum	-0.17	105.0	1.81	102.7	103.0	0.32	9.8	50	114.9	104.6	9.43	104.2	103.8	0.42	-0.11
Nickel	-0.01	98.5	0.05	98.1	100.4	2.36	-0.1	50	96.2	90.7	5.96	99.3	93.6	5.92	-0.02
Copper	-0.01	99.0	1.35	103.8	106.9	2.96	1.0	50	101.0	94.5	6.64	99.2	98.6	0.70	0.12
Zinc	-0.14	115.3	10.44	117.9	116.5	1.15	25.9	50	107.8	139.1	25.38	98.7	105.4	6.56	1.20
Arsenic	-0.02	97.7	-0.44	105.4	106.1	0.66	0.4	50	113.3	112.2	0.96	100.5	105.4	4.74	-0.09
Selenium	0.08	103.4	-0.04	105.3	108.1	2.61	2.4	250	121.1	117.9	2.73	101.6	106.9	5.06	0.03
Strontium	0.00	104.6	0.13	105.9	107.0	1.10	1.4	50	107.3	102.4	4.73	99.6	102.9	3.25	0.00
Molybdenum	0.01	97.5	0.02	98.8	98.6	0.21	0.1	50	95.2	90.9	4.68	99.2	90.0	9.70	0.01
Barium	0.00	99.1	0.07	98.2	98.6	0.45	0.7	50	97.8	93.4	4.66	100.0	94.5	5.73	-0.01

MS = Matrix Spike MSD = Matrix Spike Duplicate; LFB = Laboratory Fortified Blank; LFBD = Laboratory Fortified Blank Duplicate RPD = Relative Percent Difference

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Alkalinity QC Summary (SM 2320B)

Date Analyzed: 3/19/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	40	40.1	100.25	95-105
IPC	40	40.5	101.25	95-105
IPC	40	40.5	101.25	95-105
IPC	40	40.5	101.25	95-105
IPC	40	40.7	101.75	95-105

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12790	247.7	248.3	0.24	10
AB12870	241.1	241.5	0.17	10
AB12880	272.5	271.9	0.22	10
AB12890	191.1	191.7	0.31	10
AB12908	1.1	1.1	0.00	10
AB12918	306.1	304.3	0.59	10
AB12965	232.5	231.3	0.52	10
AB12975	203.3	204.1	0.39	10
AB13078	370.5	360.5	2.74	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

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Ammonia by Electrode QC Summary (SM 4500-NH3)

Date: 3/21/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC (Low)	0.050	0.0451	90.2	90-110
IPC (High)	0.500	0.461	92.2	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB13151	0.009	0.500	0.406	0.439	79.4	86.0	7.8	85-120	10

Note: The MS and MSD does not meet the acceptance criteria for the recovery percent. The data is accepted because the recovery percent for the IPC (Low) and IPC (High) meet the acceptance criteria.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; IPC = Instrument Performance Check
 RPD = Relative Percent Difference; Rec = Recovery

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Phosphorus QC Summary (Hach 8190)

Date: 3/21/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
LCS	0.200	0.214	107	90-110
QCS	0.200	0.185	92.5	90-110
CCV	0.200	0.216	108	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12896	0.050	0.200	0.267	0.268	108.5	109	0.4	85-120	10

Note: possible matrix interference observed. Data accepted based on LCS, QCS, and CCV recoveries.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;

RPD = Relative Percent Difference; Rec = Recovery

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MBAS QC Summary (SM 5540C)

Date Analyzed: 3/13/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	0.050	0.042	84	80-120
IPC	0.500	0.491	98.2	80-120
IPC	0.050	0.059	118	80-120

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

*Ceres Analytical Laboratory, Inc.
4919 Windplay Dr., Suite 1
El Dorado Hills, CA 95762*

March 15, 2014

Ceres ID: 10292

Monterey Bay Analytical
Mr. David Holland
4 Justin Court, Ste. D
Monterey, CA 93940

Mr. Holland,

Enclosed please find the results for one aqueous sample received on March 13, 2014. This sample was analyzed for 2,3,7,8-TCDD by EPA 1613. Rush 5 day turn-around time was provided for this work.

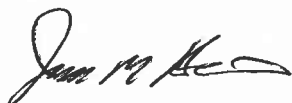
This work was authorized under M.B.A.'s Project # 12792.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

The Sample Tracking Section includes all external and internal chain of custodies, laboratory bench sheets, and any special instructions received.

If you have any questions regarding this report, please feel free to contact me at (888)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

<u>Ceres Sample ID:</u>	<u>Sample ID</u>	<u>Date Received</u>	<u>Collection Date & Time</u>
10292-001	CX-B2WQ Zone #3	3/13/2014	3/11/2014 15:45

Section II: Data Summary

Sample ID: Method Blank								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-MB001	Date Received:	NA
Project:	12792		Sample Size:	1.000 L	QC Batch #:	1165	Date Extracted:	13-Mar-14
Date Collected:	NA				ZB-5 MS Analysis Date:	14-Mar-14		
Time Collected:	NA							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	3.25			<u>IS</u> ¹³ C-2,3,7,8-TCDD	104	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	104	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JMH			Reviewed by:	BS			

Sample ID: Ongoing Precision and Recovery								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-OPR001	Date Received:	NA
Project:	12792		Sample Size:	1.000 L	QC Batch #:	1165	Date Extracted:	13-Mar-14
Date Collected:	NA				ZB-5 MS Analysis Date:	14-Mar-14		
Time Collected:	NA							
Analyte	Conc. (ng/ml)	Limits^a	Qualifiers		Labeled Standards	Conc.	Limits^a	Qualifiers
2,3,7,8-TCDD	9.24	7.3-14.6			IS ¹³ C-2,3,7,8-TCDD	104	25-141	
					CRS ³⁷ Cl ₄ -2,3,7,8-TCDD	9.88	3.7-15.8	
					<i>a. Method acceptance criteria .</i>			
Analyst: JMH				Reviewed by: BS				

Sample ID: CX-B2WQ Zone #3							
Client Data			Sample Data		Laboratory Data		
Name: Monterey Bay Analytical			Matrix: Aqueous		Lab Sample ID: 10292-001		Date Received: 13-Mar-14
Project: 12792			Sample Size: 1.055 L		QC Batch #: 1165		Date Extracted: 13-Mar-14
Date Collected: 11-Mar-14					ZB-5 MS Analysis Date: 14-Mar-14		
Time Collected: 15:45							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c Qualifiers
2,3,7,8-TCDD	ND	2.94			<u>IS</u> ¹³ C-2,3,7,8-TCDD	99.0	31 - 137
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	94.2	42 - 164
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.		
Analyst: JMH				Reviewed by: BS			

Section VI: Sample Tracking

Ceres Analytical Laboratory, Inc.

4919 Windplay Dr. Suite 1
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 Tel: (916)932-5011

10292
Chain of Custody

Please Print in Pen

Ceres Use Only

Appendix G

Ceres Project ID: 10292
 Temperature: 2.8 °C

Reports and invoices will be delivered by email in .pdf format

Client Information	Invoice Information (if different from Client Info)	Project Information
Company Name: _____ Monterey Bay Analytical Contact Name: _____ David Holland Address: 4 Justin Court Ste D Monterey CA 93940 Ph: 831-375-6227 Email: <u>montereybayanalytical@usa.net</u>	Company Name: _____ Same Contact Name: _____ Address: _____ Ph: _____ Fx: _____ Email: _____	Ceres Quote #: _____ P.O. # _____ Project ID: _____ TAT (business days) _____ Std 15 days; Rush TAT available please call

Matrix abbreviations:

A: Aqueous S: Soil AS: Ash DW: Drinking Water
 E: Effluent SD: Sediment C: Clay SO: Solid
 I: Influent SL: Sludge CS: Clay Slurry O: Other (please comment)

Sample ID	Sample Collection			Matrix	# of containers	EPA 1613	EPA 8290	NCASI 551	EPA 8280	EPA 613	Other	TEF		
	Date	Time	Matrix									<input type="checkbox"/> 1998 WHO	<input type="checkbox"/> 2005 WHO	<input type="checkbox"/> Other
1 CX-B2WQ Zone #3	3/11/2014	15:45	Aq		X							<input type="checkbox"/> 1998 WHO	<input type="checkbox"/> 2005 WHO	<input type="checkbox"/> Other
2												Comments		
3												12792		
4												(2,3,7,8 TCDD only)		
5												5 day Rush Please		
6														
7														
8														
9														
10														
11														
12														

Samples will be disposed of 45 days after submission of report, unless other provisions have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (signature and Printed Name)	Date	Time
David Holland	3/12/2014	12:00	J M Hedlin	3/13/14	09:38

Client understands that all terms described in the proposals, quotations, and/or the general terms and conditions of Ceres Analytical Laboratory will be followed.
 Ceres Analytical Laboratory reserves the right to terminate its service or withhold delivery of reports, if in Ceres' discretion the terms of the project have been broken.

Sample Receipt Check List

Ceres ID: 10292	Date/Time: 3/13/14 09:38
Client Project ID: 12792	Received Temperature: 2.8 °C Acceptable: <input checked="" type="radio"/> Y / <input type="radio"/> N
Chain of Custody Relinquished by signed?	<input checked="" type="radio"/> Y / <input type="radio"/> N
Custody Seals? Present?	<input type="radio"/> Y / <input type="radio"/> N
Intact?	<input type="radio"/> Y / <input type="radio"/> N
NA:	<input checked="" type="radio"/> NA
Unlabeled / Illegible Samples	<input type="radio"/> Y / <input checked="" type="radio"/> N
Proper Containers:	<input checked="" type="radio"/> Y / <input type="radio"/> N
Preservation Acceptable (Chemical or Temperature)?	<input checked="" type="radio"/> Y / <input type="radio"/> N
Drinking Water, Sodium Thiosulfate present?	<input type="radio"/> Y / <input type="radio"/> N / <input checked="" type="radio"/> NA
List COC discrepancies:	3/13/14
List Damaged Samples:	3/13/14

Ceres Analytical Laboratory

Process Request

Ceres ID: 10292 PB: 1165 Sample #s: 1 Due Date: 3/18/14

Matrix (circle one): Drinking Water Aqueous Effluent Influent Ash
 Solid Soil Sediment Sludge Clay/Clay Slurry Other: _____

Method (check one):

- 1613 2,3,7,8-TCDD 8290 2,3,7,8-TCDD
 1613 2,3,7,8-TCDD/F 8290 2,3,7,8-TCDD/F
 1613 Cl₄-Cl₈ 8290 Cl₄-Cl₈
 8280 2,3,7,8-TCDD NCASI 551
 8280 2,3,7,8-TCDD/F
 8280 Appendix IX
 8280 Cl₄-Cl₈

Instructions:

Method: 301.1 1613
 SOP #: 301.1

Ceres Analytical Laboratory
 Sample Prep Bench Sheet

Appendix G

Ceres ID	Client ID	Ver.	wt/vol	ISS/PAR	CSS	AP	AB/AC	FC	RSS
				chem/date/witness	chem/date/witness				chem/date/witness
0-1165-MB001	Method Blank		1.000 L	3/13/14 M	3/14/14 M	NA	3/14/14	NA	3/14/14 M
0-1165-OPR001	OPR		1.000 L	↓	↓	↓	↓	↓	↓
10292-1165-001	CX-B2WQ Zone #3	✓	1.055 L	↓	↓	↓	↓	↓	↓

Comments: ⓐ spiked w/ISS

Soxhlet Start: 15:00 3/13/14
 Soxhlet Stop: 07:15 3/14/14

Samples Logged out by: J 11:00 3/13/14
 Samples Returned by: NA
 Note samples Depleted: 1

Sample Extracts Storage Location: Box 8
 Extracts to Instrument: 10:30 3/14/14
 Extracts returned to Storage Location: 09:00 3/15/14

Method: 1613
SOP #: 301.1

Ceres Analytical Laboratory
Sample Prep Bench Sheet

Appendix G

Standard	Standard ID	Vol.	Expiration Date
ISS	S031212A	10ul	3/12/17
NSS	S031212B	10ul	3/12/17
CSS	S031212C	10ul	3/12/17
RSS	S031212D	20ul	3/12/17

Solvents/Solutions/Packing Materials

Name	Amount	Lot #	Exp. Date
Toluene	450ml	P005770TOL	8/17/14
Hexane	30,30,100,20	53263	8/11/14
Sigel	4g	P020514A	8/5/14
Basic gel	4g	P012014A	7/20/14
Acid gel	8g	P031114A	9/11/14
Acid A1	6g	P031114B	9/11/14
Na ₂ SO ₄	1.5g	P120413A	6/4/14
20% Decm Hex	30ml	L031214A	9/12/14

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*	Results taken from dilution.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery



Cal Am Water Company
Travis Peterson
511 Pacific Lodge Road, Suite 100
Pacific Grove, CA 93950

4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS

montereybayanalytical@usa.net

ELAP Certification Number: 2385

Page 1 of 2

Friday, March 21, 2014

Lab Number: AB12896

Collection Date/Time: 3/12/2014 17:15 Sample Collector: SOBOWLEW, J
Submittal Date/Time: 3/12/2014 18:15 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-B2WQ Zone 4 (55-65 Ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO ₃)	SM2320B	mg/L	104		2		3/19/2014	LRH
Aluminum, Total	EPA200.8	ug/L	204		200	1000	3/17/2014	SM
Ammonia-N, Dissolved	SM4500NH ₃ D	mg/L	0.1		0.05		3/21/2014	LRH
Arsenic, Total	EPA200.8	ug/L	55		20	10	3/17/2014	SM
Barium, Dissolved	EPA200.8	ug/L	90	J	200		3/17/2014	SM
Bicarbonate (as HCO ₃ ⁻)	SM2320B	mg/L	127		10		3/20/2014	DH
Boron, Dissolved	EPA200.7	mg/L	2.36		0.5		3/13/2014	DC
Bromide, Dissolved	EPA300.0	mg/L	44		10		3/13/2014	DC
Calcium	EPA200.7	mg/L	896		5		3/13/2014	DC
Calcium, Dissolved	EPA200.7	mg/L	886		5		3/13/2014	DC
Carbamates by HPLC (EPA 531)	EPA531	ug/L	Attached (ND)	E			3/14/2014	BSK
Carbonate as CaCO ₃	SM2320B	mg/L	Not Detected		10		3/20/2014	DH
Chloride, Dissolved	EPA300.0	mg/L	14464		100		3/13/2014	DC
Chlorinated Pesticides and PCB (EP	EPA508	ug/L	Attached (ND)	E			3/19/2014	WECK
Color, Apparent (Unfiltered)	SM2120B	Color Units	23		3	15	3/13/2014	LRH
Copper, Total	EPA200.8	ug/L	136		80	1300	3/17/2014	SM
DBCP & EDB	EPA504.1	ug/L	Attached (ND)	E			3/19/2014	BSK
Dioxin	EPA-5 1613B	pg/L	Not Detected	E			3/19/2014	CERES
Diquat (EPA 549)	EPA549	ug/L	Attached (ND)	E			3/19/2014	BSK
Dissolved Anions	Calculation	Meq/L	449				3/20/2014	DH
Dissolved Cations	Calculation	Meq/L	418				3/20/2014	DH
Endothall	EPA548.1	ug/L	Attached (ND)	E			3/18/2014	BSK
Fluoride, Dissolved	EPA300.0	mg/L	0.5		0.2		3/13/2014	DC
Glyphosate	EPA547	ug/L	Attached (ND)	E			3/17/2014	BSK
Hardness (as CaCO ₃)	SM2340B/Calc	mg/L	6405		10		3/14/2014	DH
Hydroxide	SM2320B	mg/L	Not Detected		5		3/20/2014	DH
Iodide	EPA9056M	ug/L	Attached (ND)	E	10		3/15/2014	WECK
Iron	EPA200.7	ug/L	164		100	300	3/13/2014	DC
Iron, Dissolved	EPA200.7	ug/L	121		100	300	3/13/2014	DC
Kjeldahl Nitrogen, Dissolved	SM4500-NH ₃ B,	mg/L	Not Detected		0.5		3/17/2014	HM
Lithium	EPA200.8	ug/L	164		20		3/17/2014	SM
Magnesium	EPA200.7	mg/L	1012		5		3/13/2014	DC
Magnesium, Dissolved	EPA200.7	mg/L	1015		100		3/13/2014	DC
Manganese, Dissolved	EPA200.7	ug/L	Not Detected		100	50	3/13/2014	DC
Manganese, Total	EPA200.7	ug/L	Not Detected		100	50	3/13/2014	DC

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level

H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See Report attachments. T = Temperature Exceedance

Lab Number: AB12896

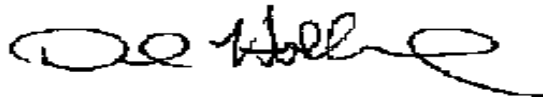
Collection Date/Time: 3/12/2014 17:15 Sample Collector: SOBOLEW, J
 Submittal Date/Time: 3/12/2014 18:15 Sample ID: GEOSCIENCE Coliform Designation:

Sample Description: CX-B2WQ Zone 4 (55-65 Ft bgs)

Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
MBAS (Surfactants)	SM5540C	mg/L	Not Detected		0.05	0.50	3/13/2014	DH
Nitrate as NO3	EPA300.0	mg/L	Not Detected		2	45	3/13/2014	DC
Nitrate+Nitrite as N	EPA300.0	mg/L	Not Detected		0.2		3/13/2014	DC
Nitrite as NO2-N, Dissolved	EPA300.0	mg/L	Not Detected		0.2		3/13/2014	DC
Odor Threshold at 60 C	SM2150B	TON	1		1	3	3/13/2014	LRH
o-Phosphate-P, Dissolved	Hach 8190	mg/L	0.05		0.1		3/21/2014	HC
pH (Field Test)	SM4500-H+B	pH	7.12				3/12/2014	JS
pH (Laboratory)	SM4500-H+B	pH (H)	7.2				3/12/2014	DH
Phenoxy Acid Herbicides (515.3)	EPA515.3	ug/L	Attached (ND) E				3/15/2014	BSK
Phosphorus, Dissolved	HACH 8190	mg/L	0.05		0.03		3/21/2014	HC
Potassium	EPA200.7	mg/L	227		5		3/13/2014	DC
Potassium, Dissolved	EPA200.7	mg/L	226		1		3/13/2014	DC
QC Ratio TDS/SEC	Calculation		0.66				3/17/2014	DH
Reg. Org. Compounds (EPA 525)	EPA525	ug/L	Attached (ND) E				3/19/2014	BSK
Silica as SiO2, Dissolved	EPA200.7	mg/L	19		5		3/13/2014	DC
Sodium	EPA200.7	mg/L	6471		5		3/13/2014	DC
Sodium, Dissolved	EPA200.7	mg/L	6536		5		3/13/2014	DC
Specific Conductance (E.C)	SM2510B	umhos/cm	40270		1	900	3/14/2014	HM
Specific Conductance (E.C) (Field)	SM2510B	umhos/cm	39657		1		3/12/2014	JS
Strontium, Dissolved	EPA200.8	ug/L	9966		100		3/17/2014	SM
Sulfate	EPA300.0	mg/L	1822		100	250	3/13/2014	DC
Temperature (Field)	SM2550	° C	17.8				3/12/2014	JS
Total Cations	Calculations	Meq/L	415				3/20/2014	DH
Total Diss. Solids	SM2540C	mg/L	26700		10	500	3/14/2014	HM
Turbidity	EPA180.1	NTU	1.5		0.05	5.0	3/13/2014	LRH
Turbidity (Field)	EPA180.1	NTU	0.63		0.05		3/12/2014	JS
Volatile Org. Compounds (524)	EPA524	ug/L	Attached (ND) E				3/19/2014	BSK
Zinc, Total	EPA200.8	ug/L	356		200	5000	3/17/2014	SM

Sample Comments:

Report Approved by:



David Holland, Laboratory Director

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level
 H = Analyzed outside of hold time E = Analysis performed by External Laboratory; See Report attachments. T = Temperature Exceedance

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **12896 CXB2WQ Zone 4 Total**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	6471	0.04350	281.49
Potassium	227	0.02558	5.81
Calcium	896	0.04990	44.71
Magnesium	1012	0.08229	83.28
NH3-N	0	0.07143	0.00
		SUM	415.28

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	104	0.02000	2.08
Sulfate	1822	0.02082	37.93
Chloride	14464	0.02821	408.03
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0	0.07138	0.00
Phosphate-P	0.0	0.01031	0.00
Fluoride	0.5	0.05264	0.03
Bromide	44.0	0.01252	0.55
		SUM	448.62

ANION-CATION BALANCE: **-4** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	40270	
Cation Sum X 100	41528	103%
Anion Sum X 100	44862	111%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	35.2
Ca+Mg+Na	409.48
HCO3/Ca	0.05
dS/m	40.27
Value Table II	1.5
SAR adj	43.2

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.

**Monterey Bay Analytical Services
4 Justin Court Ste D
Monterey CA, 93940**

SAMPLE ID **12896 CXB2WQ Zone 4 Diss**

CORRECTNESS OF ANALYSIS

CATION	MG/L	FACTOR	MEQ/L
Sodium	6536	0.04350	284.32
Potassium	226	0.02558	5.78
Calcium	886	0.04990	44.21
Magnesium	1015	0.08229	83.52
NH3-N	0	0.07143	0.00
		SUM	417.83

ANION	MG/L	FACTOR	MEQ/L
Total Alkalinity	104	0.02000	2.08
Sulfate	1822	0.02082	37.93
Chloride	14464	0.02821	408.03
Nitrate	0	0.01613	0.00
Nitrate-Nitrogen	0	0.07138	0.00
Phosphate-P	0.0	0.01031	0.00
Fluoride	0.5	0.05264	0.03
Bromide	44.0	0.01252	0.55
		SUM	448.62

ANION-CATION BALANCE: **-4** (% DIFFERENCE)

Note: Anion-cation sums must balance because all potable waters are electrically neutral. For anion sums below 10.0 meq/L, a 2% difference is acceptable. For anion sums between 10.0 - 800 meq/L, a 5% difference is acceptable. If the difference exceeds the above criteria, the sample should be reanalyzed.

ION SUM AND MEASURED CONDUCTIVITY:

Conductivity	40270	
Cation Sum X 100	41783	104%
Anion Sum X 100	44862	111%

Note: Ion sum (cation or anion) X 100 should be within 10% of the measured conductivity. If either sum is out of range, recheck analysis.

SODIUM OR PERMEABILITY HAZARDS

Sodium Adsorption Ratio (SAR)	35.6
Ca+Mg+Na	412.05
HCO3/Ca	0.05
dS/m	40.27
Value Table II	1.5
SAR adj	43.6

Note: If the SAR adj is less than 6, there should be no problems with sodium or permeability. In the range of 6 to 9 there are increasing problems; above 9, severe problems can be expected.



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Appendix G

A4C1134

3/20/2014

Invoice: A406860

David Holland
Monterey Bay Analytical
4 Justin Court Suite D
Monterey, CA 93940

RE: Report for A4C1134 Cal Am

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 3/14/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAP Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montieth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montieth , at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP
ORELAP #4021

Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: Monterey Bay Analytical
Report To: David Holland
Project #: -
Received: 3/14/2014 - 09:30
Report Due: 3/21/2014

Invoice To: Monterey Bay Analytical
Invoice Attn: David Holland
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 4.9	COC/Labels Agree
	Received On Wet Ice
	Packing Material - Bubble Wrap
	Packing Material - Foam
	Packing Material - Paper
	Sample(s) were received in temperature range.
	Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- BS1.1 Blank spike recovery for this analyte was biased high. Associated result may be biased high; reanalysis not feasible.
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- MS1.1 Matrix spike recovery exceeds upper control limit. Reported results for parent matrix may be biased high due to matrix interferences.

Report Distribution

Recipient(s)	Report Format	CC:
David Holland	Final.rpt	

Certificate of Analysis

Sample ID: A4C1134-01
Sampled By: Josh Sobolew
Sample Description: CX-B2WQ Zone #4 (55-65 ft bgs) // 12896

Sample Date - Time: 03/12/14 - 17:15
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A403269	03/18/14	03/19/14	CV0.0
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A403269	03/18/14	03/19/14	BS1.1, CV0.0
Surrogate: 1-Br-2-Nitrobenzene	EPA 504.1	95 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A403154	03/14/14	03/15/14	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A403154	03/14/14	03/15/14	
2,4-D	EPA 515.3	ND	10	ug/L	1	A403154	03/14/14	03/15/14	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A403154	03/14/14	03/15/14	
Dalapon	EPA 515.3	ND	10	ug/L	1	A403154	03/14/14	03/15/14	BS1.0, CV0.0
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A403154	03/14/14	03/15/14	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A403154	03/14/14	03/15/14	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A403154	03/14/14	03/15/14	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A403154	03/14/14	03/15/14	
Surrogate: DCPAA	EPA 515.3	80 %	<i>Acceptable range: 70-130 %</i>						
<u>Volatile Organics by GC-MS</u>									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A403247	03/18/14	03/19/14	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A403247	03/18/14	03/19/14	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A403247	03/18/14	03/19/14	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A403247	03/18/14	03/19/14	

Certificate of Analysis

Sample ID: A4C1134-01
Sampled By: Josh Sobolew
Sample Description: CX-B2WQ Zone #4 (55-65 ft bgs) // 12896

Sample Date - Time: 03/12/14 - 17:15
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics by GC-MS									
Acetone	EPA 524.2	ND	10	ug/L	1	A403247	03/18/14	03/19/14	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A403247	03/18/14	03/19/14	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A403247	03/18/14	03/19/14	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A403247	03/18/14	03/19/14	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A403247	03/18/14	03/19/14	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A403247	03/18/14	03/19/14	

Certificate of Analysis

Sample ID: A4C1134-01
Sampled By: Josh Sobolew
Sample Description: CX-B2WQ Zone #4 (55-65 ft bgs) // 12896

Sample Date - Time: 03/12/14 - 17:15
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	93 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	97 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A403279	03/18/14	03/19/14	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A403279	03/18/14	03/19/14	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A403279	03/18/14	03/19/14	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A403279	03/18/14	03/19/14	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A403279	03/18/14	03/19/14	BS1.0
Bromacil	EPA 525.2	ND	10	ug/L	1	A403279	03/18/14	03/19/14	
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A403279	03/18/14	03/19/14	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A403279	03/18/14	03/19/14	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A403279	03/18/14	03/19/14	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A403279	03/18/14	03/19/14	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A403279	03/18/14	03/19/14	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A403279	03/18/14	03/19/14	
Prometryn	EPA 525.2	ND	2.0	ug/L	1	A403279	03/18/14	03/19/14	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A403279	03/18/14	03/19/14	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A403279	03/18/14	03/19/14	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A403279	03/18/14	03/19/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	103 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A403175	03/14/14	03/14/14	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A403175	03/14/14	03/14/14	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A403175	03/14/14	03/14/14	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A403175	03/14/14	03/14/14	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A403175	03/14/14	03/14/14	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A403175	03/14/14	03/14/14	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A403175	03/14/14	03/14/14	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A403175	03/14/14	03/14/14	
<u>Carbamates by HPLC</u>									
Methiocarb	EPA 531.1	ND	2.0	ug/L	1	A403175	03/14/14	03/14/14	
Propoxur	EPA 531.1	ND	2.0	ug/L	1	A403175	03/14/14	03/14/14	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A403209	03/17/14	03/17/14	
Surrogate: AMPA	EPA 547	75 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A403241	03/17/14	03/18/14	

Certificate of Analysis

Sample ID: A4C1134-01
Sampled By: Josh Sobolew
Sample Description: CX-B2WQ Zone #4 (55-65 ft bgs) // 12896

Sample Date - Time: 03/12/14 - 17:15
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A403185	03/15/14	03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A403269

Prepared: 03/18/2014

Prep Method: EPA 505

Analyst: GAK

Blank (A403269-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							03/19/14	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							03/19/14	
Surrogate: 1-Br-2-Nitrobenzene	0.63			0.69		92	70-130			03/19/14	

Blank Spike (A403269-BS1)

Dibromochloropropane (DBCP)	0.24	0.010	ug/L	0.20		119	70-130			03/19/14	
Ethylene Dibromide (EDB)	0.28	0.020	ug/L	0.20		140	70-130			03/19/14	BS High
Surrogate: 1-Br-2-Nitrobenzene	0.66			0.69		97	70-130			03/19/14	

Blank Spike Dup (A403269-BSD1)

Dibromochloropropane (DBCP)	0.24	0.010	ug/L	0.20		118	70-130	1	20	03/19/14	
Ethylene Dibromide (EDB)	0.28	0.020	ug/L	0.20		139	70-130	1	20	03/19/14	BS High
Surrogate: 1-Br-2-Nitrobenzene	0.62			0.69		91	70-130			03/19/14	

Matrix Spike (A403269-MS1), Source: A4C1245-01

Dibromochloropropane (DBCP)	0.24	0.010	ug/L	0.20	ND	116	65-135			03/19/14	
Ethylene Dibromide (EDB)	0.28	0.020	ug/L	0.20	ND	137	65-135			03/19/14	MS1.1 High
Surrogate: 1-Br-2-Nitrobenzene	0.65			0.70		93	70-130			03/19/14	

Matrix Spike Dup (A403269-MSD1), Source: A4C1245-01

Dibromochloropropane (DBCP)	0.25	0.010	ug/L	0.21	ND	120	65-135	4	20	03/19/14	
Ethylene Dibromide (EDB)	0.28	0.020	ug/L	0.21	ND	138	65-135	2	20	03/19/14	MS1.1 High
Surrogate: 1-Br-2-Nitrobenzene	0.65			0.70		93	70-130			03/19/14	

EPA 515.3 - Quality Control

Batch: A403154

Prepared: 03/14/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank (A403154-BLK1)

2,4,5-T	ND	1.0	ug/L							03/14/14	
2,4,5-TP (Silvex)	ND	1.0	ug/L							03/14/14	
2,4-D	ND	10	ug/L							03/14/14	
Bentazon	ND	2.0	ug/L							03/14/14	
Dalapon	ND	10	ug/L							03/14/14	
Dicamba	ND	1.5	ug/L							03/14/14	
Dinoseb	ND	2.0	ug/L							03/14/14	
Pentachlorophenol	ND	0.20	ug/L							03/14/14	
Picloram	ND	1.0	ug/L							03/14/14	
Surrogate: DCPAA	53			58		92	70-130			03/14/14	

Blank Spike (A403154-BS1)

2,4,5-T	4.0	1.0	ug/L	4.0		100	70-130			03/14/14	
2,4,5-TP (Silvex)	0.73	1.0	ug/L	0.80		91	70-130			03/14/14	
2,4-D	0.39	10	ug/L	0.40		98	70-130			03/14/14	
Bentazon	8.2	2.0	ug/L	8.0		102	70-130			03/14/14	
Dalapon	7.0	10	ug/L	4.0		174	70-130			03/14/14	BS High

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A403154

Prepared: 03/14/2014

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike (A403154-BS1)

Dicamba	5.7	1.5	ug/L	6.0		94	70-130			03/14/14	
Dinoseb	0.80	2.0	ug/L	0.80		100	70-130			03/14/14	
Pentachlorophenol	0.14	0.20	ug/L	0.16		91	70-130			03/14/14	
Picloram	0.36	1.0	ug/L	0.40		89	70-130			03/14/14	
Surrogate: DCPAA	54			58		93	70-130			03/14/14	

Blank Spike Dup (A403154-BSD1)

2,4,5-T	4.0	1.0	ug/L	4.0		100	70-130	0	20	03/15/14	
2,4,5-TP (Silvex)	0.72	1.0	ug/L	0.80		90	70-130	1	20	03/15/14	
2,4-D	0.39	10	ug/L	0.40		97	70-130	1	20	03/15/14	
Bentazon	8.0	2.0	ug/L	8.0		100	70-130	2	20	03/15/14	
Dalapon	7.7	10	ug/L	4.0		193	70-130	10	20	03/15/14	BS High
Dicamba	5.7	1.5	ug/L	6.0		94	70-130	0	20	03/15/14	
Dinoseb	0.82	2.0	ug/L	0.80		102	70-130	2	20	03/15/14	
Pentachlorophenol	0.14	0.20	ug/L	0.16		89	70-130	2	20	03/15/14	
Picloram	0.34	1.0	ug/L	0.40		84	70-130	5	20	03/15/14	
Surrogate: DCPAA	53			58		92	70-130			03/15/14	

Matrix Spike (A403154-MS1), Source: A4C0842-03

2,4,5-T	4.4	1.0	ug/L	4.0	ND	103	70-130			03/14/14	
2,4,5-TP (Silvex)	0.73	1.0	ug/L	0.80	ND	92	70-130			03/14/14	
2,4-D	0.40	10	ug/L	0.40	ND	101	70-130			03/14/14	
Bentazon	8.6	2.0	ug/L	8.0	ND	107	70-130			03/14/14	
Dalapon	7.9	10	ug/L	4.0	ND	96	70-130			03/14/14	
Dicamba	5.7	1.5	ug/L	6.0	ND	95	70-130			03/14/14	
Dinoseb	0.82	2.0	ug/L	0.80	ND	102	70-130			03/14/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	92	70-130			03/14/14	
Picloram	0.48	1.0	ug/L	0.40	ND	119	70-130			03/14/14	
Surrogate: DCPAA	52			58		90	70-130			03/14/14	

Matrix Spike Dup (A403154-MSD1), Source: A4C0842-03

2,4,5-T	4.4	1.0	ug/L	4.0	ND	104	70-130	0	20	03/14/14	
2,4,5-TP (Silvex)	0.74	1.0	ug/L	0.80	ND	92	70-130	0	20	03/14/14	
2,4-D	0.40	10	ug/L	0.40	ND	100	70-130	0	20	03/14/14	
Bentazon	8.4	2.0	ug/L	8.0	ND	106	70-130	1	20	03/14/14	
Dalapon	8.1	10	ug/L	4.0	ND	102	70-130	3	20	03/14/14	
Dicamba	5.7	1.5	ug/L	6.0	ND	95	70-130	0	20	03/14/14	
Dinoseb	0.82	2.0	ug/L	0.80	ND	103	70-130	1	20	03/14/14	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	92	70-130	0	20	03/14/14	
Picloram	0.43	1.0	ug/L	0.40	ND	106	70-130	11	20	03/14/14	
Surrogate: DCPAA	53			58		91	70-130			03/14/14	

EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A403247-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L						03/19/14	
1,1,1-Trichloroethane	ND	0.50	ug/L						03/19/14	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L						03/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L						03/19/14	
1,1,2-Trichloroethane	ND	0.50	ug/L						03/19/14	
1,1-Dichloroethane	ND	0.50	ug/L						03/19/14	
1,1-Dichloroethene	ND	0.50	ug/L						03/19/14	
1,1-Dichloropropene	ND	0.50	ug/L						03/19/14	
1,2,3-Trichlorobenzene	ND	0.50	ug/L						03/19/14	
1,2,4-Trichlorobenzene	ND	0.50	ug/L						03/19/14	
1,2,4-Trimethylbenzene	ND	0.50	ug/L						03/19/14	
1,2-Dichlorobenzene	ND	0.50	ug/L						03/19/14	
1,2-Dichloroethane	ND	0.50	ug/L						03/19/14	
1,2-Dichloropropane	ND	0.50	ug/L						03/19/14	
1,3,5-Trimethylbenzene	ND	0.50	ug/L						03/19/14	
1,3-Dichlorobenzene	ND	0.50	ug/L						03/19/14	
1,3-Dichloropropane	ND	0.50	ug/L						03/19/14	
1,4-Dichlorobenzene	ND	0.50	ug/L						03/19/14	
2,2-Dichloropropane	ND	0.50	ug/L						03/19/14	
2-Butanone	ND	5.0	ug/L						03/19/14	
2-Chlorotoluene	ND	0.50	ug/L						03/19/14	
2-Hexanone	ND	10	ug/L						03/19/14	
4-Chlorotoluene	ND	0.50	ug/L						03/19/14	
4-Methyl-2-pentanone	ND	5.0	ug/L						03/19/14	
Acetone	ND	10	ug/L						03/19/14	
Benzene	ND	0.50	ug/L						03/19/14	
Bromobenzene	ND	0.50	ug/L						03/19/14	
Bromochloromethane	ND	0.50	ug/L						03/19/14	
Bromodichloromethane	ND	0.50	ug/L						03/19/14	
Bromoform	ND	0.50	ug/L						03/19/14	
Bromomethane	ND	0.50	ug/L						03/19/14	
Carbon Tetrachloride	ND	0.50	ug/L						03/19/14	
Chlorobenzene	ND	0.50	ug/L						03/19/14	
Chloroethane	ND	0.50	ug/L						03/19/14	
Chloroform	ND	0.50	ug/L						03/19/14	
Chloromethane	ND	0.50	ug/L						03/19/14	
cis-1,2-Dichloroethene	ND	0.50	ug/L						03/19/14	
cis-1,3-Dichloropropene	ND	0.50	ug/L						03/19/14	
Dibromochloromethane	ND	0.50	ug/L						03/19/14	
Dibromomethane	ND	0.50	ug/L						03/19/14	
Dichlorodifluoromethane	ND	0.50	ug/L						03/19/14	
Dichloromethane	ND	0.50	ug/L						03/19/14	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L						03/19/14	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L						03/19/14	
Ethylbenzene	ND	0.50	ug/L						03/19/14	
Hexachlorobutadiene	ND	0.50	ug/L						03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank (A403247-BLK1)

Isopropylbenzene	ND	0.50	ug/L							03/19/14	
m,p-Xylenes	ND	0.50	ug/L							03/19/14	
Methyl-t-butyl ether	ND	0.50	ug/L							03/19/14	
Naphthalene	ND	0.50	ug/L							03/19/14	
n-Butylbenzene	ND	0.50	ug/L							03/19/14	
n-Propylbenzene	ND	0.50	ug/L							03/19/14	
o-Xylene	ND	0.50	ug/L							03/19/14	
p-Isopropyltoluene	ND	0.50	ug/L							03/19/14	
sec-Butylbenzene	ND	0.50	ug/L							03/19/14	
Styrene	ND	0.50	ug/L							03/19/14	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							03/19/14	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							03/19/14	
tert-Butylbenzene	ND	0.50	ug/L							03/19/14	
Tetrachloroethene (PCE)	ND	0.50	ug/L							03/19/14	
Toluene	ND	0.50	ug/L							03/19/14	
trans-1,2-Dichloroethene	ND	0.50	ug/L							03/19/14	
trans-1,3-Dichloropropene	ND	0.50	ug/L							03/19/14	
Trichloroethene (TCE)	ND	0.50	ug/L							03/19/14	
Trichlorofluoromethane	ND	5.0	ug/L							03/19/14	
Vinyl Chloride	ND	0.50	ug/L							03/19/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		95	70-130			03/19/14	
Surrogate: Bromofluorobenzene	49			50		99	70-130			03/19/14	

Blank Spike (A403247-BS1)

1,1,1,2-Tetrachloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,1,1-Trichloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,1,2,2-Tetrachloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.7	10	ug/L	10		97	70-130			03/19/14	
1,1,2-Trichloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,1-Dichloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,1-Dichloroethene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
1,1-Dichloropropene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,2,3-Trichlorobenzene	9.5	0.50	ug/L	10		95	70-130			03/19/14	
1,2,4-Trichlorobenzene	9.5	0.50	ug/L	10		95	70-130			03/19/14	
1,2,4-Trimethylbenzene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
1,2-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
1,2-Dichloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,2-Dichloropropane	9.9	0.50	ug/L	10		99	70-130			03/19/14	
1,3,5-Trimethylbenzene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
1,3-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
1,3-Dichloropropane	9.9	0.50	ug/L	10		99	70-130			03/19/14	
1,4-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
2,2-Dichloropropane	8.9	0.50	ug/L	10		89	70-130			03/19/14	
2-Butanone	11	5.0	ug/L	10		106	70-130			03/19/14	
2-Chlorotoluene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
2-Hexanone	10	10	ug/L	10		101	70-130			03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A403247-BS1)

4-Chlorotoluene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
4-Methyl-2-pentanone	10	5.0	ug/L	10		101	70-130			03/19/14	
Acetone	11	10	ug/L	10		110	70-130			03/19/14	
Benzene	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Bromobenzene	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Bromochloromethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
Bromodichloromethane	10	0.50	ug/L	10		101	70-130			03/19/14	
Bromoform	11	0.50	ug/L	10		108	70-130			03/19/14	
Bromomethane	11	0.50	ug/L	10		107	70-130			03/19/14	
Carbon Tetrachloride	9.7	0.50	ug/L	10		97	70-130			03/19/14	
Chlorobenzene	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Chloroethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
Chloroform	9.8	0.50	ug/L	10		98	70-130			03/19/14	
Chloromethane	9.7	0.50	ug/L	10		97	70-130			03/19/14	
cis-1,2-Dichloroethene	10	0.50	ug/L	10		100	70-130			03/19/14	
cis-1,3-Dichloropropene	10	0.50	ug/L	10		100	70-130			03/19/14	
Dibromochloromethane	10	0.50	ug/L	10		103	70-130			03/19/14	
Dibromomethane	9.8	0.50	ug/L	10		98	70-130			03/19/14	
Dichlorodifluoromethane	9.2	0.50	ug/L	10		92	70-130			03/19/14	
Dichloromethane	10	0.50	ug/L	10		100	70-130			03/19/14	
Di-isopropyl ether (DIPE)	9.9	3.0	ug/L	10		99	70-130			03/19/14	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		100	70-130			03/19/14	
Ethylbenzene	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Hexachlorobutadiene	9.3	0.50	ug/L	10		93	70-130			03/19/14	
Isopropylbenzene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
m,p-Xylenes	20	0.50	ug/L	20		98	70-130			03/19/14	
Methyl-t-butyl ether	20	0.50	ug/L	20		100	70-130			03/19/14	
Naphthalene	9.7	0.50	ug/L	10		97	70-130			03/19/14	
n-Butylbenzene	9.4	0.50	ug/L	10		94	70-130			03/19/14	
n-Propylbenzene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
o-Xylene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
p-Isopropyltoluene	9.6	0.50	ug/L	10		96	70-130			03/19/14	
sec-Butylbenzene	9.6	0.50	ug/L	10		96	70-130			03/19/14	
Styrene	9.4	0.50	ug/L	10		94	70-130			03/19/14	
tert-Amyl Methyl Ether (TAME)	9.6	3.0	ug/L	10		96	70-130			03/19/14	
tert-Butyl alcohol (TBA)	10	2.0	ug/L	10		104	70-130			03/19/14	
tert-Butylbenzene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
Tetrachloroethene (PCE)	9.7	0.50	ug/L	10		97	70-130			03/19/14	
Toluene	9.8	0.50	ug/L	10		98	70-130			03/19/14	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		100	70-130			03/19/14	
trans-1,3-Dichloropropene	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Trichloroethene (TCE)	9.9	0.50	ug/L	10		99	70-130			03/19/14	
Trichlorofluoromethane	9.5	5.0	ug/L	10		95	70-130			03/19/14	
Vinyl Chloride	9.6	0.50	ug/L	10		96	70-130			03/19/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		96	70-130			03/19/14	
Surrogate: Bromofluorobenzene	48			50		96	70-130			03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A403247-BSD1)

1,1,1,2-Tetrachloroethane	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
1,1,1-Trichloroethane	9.6	0.50	ug/L	10		96	70-130	3	30	03/19/14	
1,1,2,2-Tetrachloroethane	9.6	0.50	ug/L	10		96	70-130	3	30	03/19/14	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.4	10	ug/L	10		94	70-130	3	30	03/19/14	
1,1,2-Trichloroethane	9.7	0.50	ug/L	10		97	70-130	2	30	03/19/14	
1,1-Dichloroethane	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
1,1-Dichloroethene	9.5	0.50	ug/L	10		95	70-130	2	30	03/19/14	
1,1-Dichloropropene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
1,2,3-Trichlorobenzene	9.4	0.50	ug/L	10		94	70-130	1	30	03/19/14	
1,2,4-Trichlorobenzene	9.4	0.50	ug/L	10		94	70-130	1	30	03/19/14	
1,2,4-Trimethylbenzene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
1,2-Dichlorobenzene	9.6	0.50	ug/L	10		96	70-130	1	30	03/19/14	
1,2-Dichloroethane	9.6	0.50	ug/L	10		96	70-130	1	30	03/19/14	
1,2-Dichloropropane	9.7	0.50	ug/L	10		97	70-130	1	30	03/19/14	
1,3,5-Trimethylbenzene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
1,3-Dichlorobenzene	9.6	0.50	ug/L	10		96	70-130	1	30	03/19/14	
1,3-Dichloropropane	9.7	0.50	ug/L	10		97	70-130	2	30	03/19/14	
1,4-Dichlorobenzene	9.6	0.50	ug/L	10		96	70-130	1	30	03/19/14	
2,2-Dichloropropane	8.5	0.50	ug/L	10		85	70-130	4	30	03/19/14	
2-Butanone	9.6	5.0	ug/L	10		96	70-130	11	30	03/19/14	
2-Chlorotoluene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
2-Hexanone	9.3	10	ug/L	10		93	70-130	8	30	03/19/14	
4-Chlorotoluene	9.6	0.50	ug/L	10		96	70-130	1	30	03/19/14	
4-Methyl-2-pentanone	9.4	5.0	ug/L	10		94	70-130	8	30	03/19/14	
Acetone	9.5	10	ug/L	10		95	70-130	14	30	03/19/14	
Benzene	9.6	0.50	ug/L	10		96	70-130	3	30	03/19/14	
Bromobenzene	9.6	0.50	ug/L	10		96	70-130	3	30	03/19/14	
Bromochloromethane	9.9	0.50	ug/L	10		99	70-130	1	30	03/19/14	
Bromodichloromethane	9.8	0.50	ug/L	10		98	70-130	2	30	03/19/14	
Bromoform	10	0.50	ug/L	10		104	70-130	4	30	03/19/14	
Bromomethane	11	0.50	ug/L	10		106	70-130	0	30	03/19/14	
Carbon Tetrachloride	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
Chlorobenzene	9.8	0.50	ug/L	10		98	70-130	2	30	03/19/14	
Chloroethane	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
Chloroform	9.7	0.50	ug/L	10		97	70-130	1	30	03/19/14	
Chloromethane	9.3	0.50	ug/L	10		93	70-130	5	30	03/19/14	
cis-1,2-Dichloroethene	9.8	0.50	ug/L	10		98	70-130	3	30	03/19/14	
cis-1,3-Dichloropropene	9.7	0.50	ug/L	10		97	70-130	2	30	03/19/14	
Dibromochloromethane	10	0.50	ug/L	10		101	70-130	2	30	03/19/14	
Dibromomethane	9.7	0.50	ug/L	10		97	70-130	1	30	03/19/14	
Dichlorodifluoromethane	9.5	0.50	ug/L	10		95	70-130	4	30	03/19/14	
Dichloromethane	9.8	0.50	ug/L	10		98	70-130	1	30	03/19/14	
Di-isopropyl ether (DIPE)	9.6	3.0	ug/L	10		96	70-130	2	30	03/19/14	
Ethyl tert-Butyl Ether (ETBE)	9.8	0.50	ug/L	10		98	70-130	2	30	03/19/14	
Ethylbenzene	9.6	0.50	ug/L	10		96	70-130	3	30	03/19/14	
Hexachlorobutadiene	9.1	0.50	ug/L	10		91	70-130	2	30	03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A403247

Prepared: 03/18/2014

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A403247-BSD1)

Isopropylbenzene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
m,p-Xylenes	19	0.50	ug/L	20		96	70-130	2	30	03/19/14	
Methyl-t-butyl ether	20	0.50	ug/L	20		98	70-130	2	30	03/19/14	
Naphthalene	9.5	0.50	ug/L	10		95	70-130	2	30	03/19/14	
n-Butylbenzene	9.2	0.50	ug/L	10		92	70-130	1	30	03/19/14	
n-Propylbenzene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
o-Xylene	9.7	0.50	ug/L	10		97	70-130	1	30	03/19/14	
p-Isopropyltoluene	9.5	0.50	ug/L	10		95	70-130	1	30	03/19/14	
sec-Butylbenzene	9.5	0.50	ug/L	10		95	70-130	1	30	03/19/14	
Styrene	8.6	0.50	ug/L	10		86	70-130	8	30	03/19/14	
tert-Amyl Methyl Ether (TAME)	9.4	3.0	ug/L	10		94	70-130	2	30	03/19/14	
tert-Butyl alcohol (TBA)	9.4	2.0	ug/L	10		94	70-130	10	30	03/19/14	
tert-Butylbenzene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
Tetrachloroethene (PCE)	9.5	0.50	ug/L	10		95	70-130	1	30	03/19/14	
Toluene	9.6	0.50	ug/L	10		96	70-130	2	30	03/19/14	
trans-1,2-Dichloroethene	9.7	0.50	ug/L	10		97	70-130	3	30	03/19/14	
trans-1,3-Dichloropropene	9.7	0.50	ug/L	10		97	70-130	3	30	03/19/14	
Trichloroethene (TCE)	9.7	0.50	ug/L	10		97	70-130	2	30	03/19/14	
Trichlorofluoromethane	9.3	5.0	ug/L	10		93	70-130	2	30	03/19/14	
Vinyl Chloride	9.8	0.50	ug/L	10		98	70-130	2	30	03/19/14	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		96	70-130			03/19/14	
Surrogate: Bromofluorobenzene	48			50		97	70-130			03/19/14	

EPA 525.2 - Quality Control

Batch: A403279

Prepared: 03/18/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank (A403279-BLK1)

Alachlor	ND	1.0	ug/L							03/19/14	
Atrazine	ND	0.50	ug/L							03/19/14	
Benzo(a)pyrene	ND	0.10	ug/L							03/19/14	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							03/19/14	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							03/19/14	
Bromacil	ND	10	ug/L							03/19/14	
Butachlor	ND	0.38	ug/L							03/19/14	
Diazinon	ND	0.25	ug/L							03/19/14	
Dimethoate	ND	10	ug/L							03/19/14	
Metolachlor	ND	0.50	ug/L							03/19/14	
Metribuzin	ND	0.50	ug/L							03/19/14	
Molinate	ND	2.0	ug/L							03/19/14	
Prometryn	ND	2.0	ug/L							03/19/14	
Propachlor	ND	0.50	ug/L							03/19/14	
Simazine	ND	1.0	ug/L							03/19/14	
Thiobencarb	ND	1.0	ug/L							03/19/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.3			5.1		106	70-130			03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A403279

Prepared: 03/18/2014

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A403279-BS1)

Alachlor	0.53	1.0	ug/L	0.50		105	70-130			03/19/14	
Atrazine	0.53	0.50	ug/L	0.50		106	70-130			03/19/14	
Benzo(a)pyrene	0.099	0.10	ug/L	0.10		98	70-130			03/19/14	
Bis(2-ethylhexyl) adipate	3.3	3.0	ug/L	3.0		110	70-130			03/19/14	
Bis(2-ethylhexyl) phthalate	4.1	3.0	ug/L	3.0		134	70-130			03/19/14	BS High
Bromacil	2.2	10	ug/L	2.0		111	70-130			03/19/14	
Butachlor	1.3	0.38	ug/L	1.3		104	70-130			03/19/14	
Diazinon	0.043	0.25	ug/L	0.050		86	70-130			03/19/14	
Dimethoate	0.47	10	ug/L	0.50		94	70-130			03/19/14	
Metolachlor	2.7	0.50	ug/L	2.5		105	70-130			03/19/14	
Metribuzin	3.1	0.50	ug/L	2.5		121	70-130			03/19/14	
Molinate	2.9	2.0	ug/L	2.5		116	70-130			03/19/14	
Prometryn	0.62	2.0	ug/L	0.50		122	70-130			03/19/14	
Propachlor	2.9	0.50	ug/L	2.5		115	70-130			03/19/14	
Simazine	0.38	1.0	ug/L	0.35		107	70-130			03/19/14	
Thiobencarb	0.56	1.0	ug/L	0.50		110	70-130			03/19/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.6			5.0		112	70-130			03/19/14	

Blank Spike Dup (A403279-BSD1)

Alachlor	0.54	1.0	ug/L	0.50		109	70-130	3	30	03/19/14	
Atrazine	0.55	0.50	ug/L	0.50		109	70-130	3	30	03/19/14	
Benzo(a)pyrene	0.097	0.10	ug/L	0.10		97	70-130	2	30	03/19/14	
Bis(2-ethylhexyl) adipate	3.3	3.0	ug/L	3.0		111	70-130	0	30	03/19/14	
Bis(2-ethylhexyl) phthalate	4.0	3.0	ug/L	3.0		132	70-130	2	30	03/19/14	BS High
Bromacil	2.4	10	ug/L	2.0		122	70-130	8	30	03/19/14	
Butachlor	1.3	0.38	ug/L	1.2		105	70-130	0	30	03/19/14	
Diazinon	0.049	0.25	ug/L	0.050		98	70-130	12	30	03/19/14	
Dimethoate	0.53	10	ug/L	0.50		105	70-130	11	30	03/19/14	
Metolachlor	2.7	0.50	ug/L	2.5		108	70-130	2	30	03/19/14	
Metribuzin	3.1	0.50	ug/L	2.5		122	70-130	0	30	03/19/14	
Molinate	2.8	2.0	ug/L	2.5		110	70-130	6	30	03/19/14	
Prometryn	0.61	2.0	ug/L	0.50		122	70-130	1	30	03/19/14	
Propachlor	2.8	0.50	ug/L	2.5		113	70-130	2	30	03/19/14	
Simazine	0.40	1.0	ug/L	0.35		115	70-130	6	30	03/19/14	
Thiobencarb	0.56	1.0	ug/L	0.50		113	70-130	1	30	03/19/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.5			5.0		109	70-130			03/19/14	

Matrix Spike (A403279-MS1), Source: A4C1103-01

Alachlor	0.52	1.0	ug/L	0.49	ND	106	70-130			03/19/14	
Atrazine	0.52	0.50	ug/L	0.49	ND	106	70-130			03/19/14	
Benzo(a)pyrene	0.097	0.10	ug/L	0.098	ND	99	70-130			03/19/14	
Bis(2-ethylhexyl) adipate	3.5	3.0	ug/L	3.0	ND	118	70-130			03/19/14	
Bis(2-ethylhexyl) phthalate	4.1	3.0	ug/L	3.0	ND	114	70-130			03/19/14	
Bromacil	2.6	10	ug/L	2.0	ND	122	70-130			03/19/14	
Butachlor	1.4	0.38	ug/L	1.2	ND	111	70-130			03/19/14	
Diazinon	0.049	0.25	ug/L	0.049	ND	100	70-130			03/19/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A403279

Prepared: 03/18/2014

Prep Method: EPA 525.2

Analyst: KHH

Matrix Spike (A403279-MS1), Source: A4C1103-01

Dimethoate	0.54	10	ug/L	0.49	ND	111	70-130			03/19/14	
Metolachlor	2.6	0.50	ug/L	2.5	ND	107	70-130			03/19/14	
Metribuzin	3.0	0.50	ug/L	2.5	ND	122	70-130			03/19/14	
Molinate	2.6	2.0	ug/L	2.5	ND	105	70-130			03/19/14	
Prometryn	0.59	2.0	ug/L	0.49	ND	120	70-130			03/19/14	
Propachlor	2.7	0.50	ug/L	2.5	ND	110	70-130			03/19/14	
Simazine	0.40	1.0	ug/L	0.34	ND	115	70-130			03/19/14	
Thiobencarb	0.56	1.0	ug/L	0.49	ND	113	70-130			03/19/14	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.9			4.9		100	70-130			03/19/14	

EPA 531.1 - Quality Control

Batch: A403175

Prepared: 03/14/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank (A403175-BLK1)

3-Hydroxycarbofuran	ND	3.0	ug/L							03/14/14	
Aldicarb	ND	3.0	ug/L							03/14/14	
Aldicarb Sulfone	ND	2.0	ug/L							03/14/14	
Aldicarb Sulfoxide	ND	3.0	ug/L							03/14/14	
Carbaryl	ND	5.0	ug/L							03/14/14	
Carbofuran	ND	5.0	ug/L							03/14/14	
Methiocarb	ND	2.0	ug/L							03/14/14	
Methomyl	ND	2.0	ug/L							03/14/14	
Oxamyl	ND	20	ug/L							03/14/14	
Propoxur	ND	2.0	ug/L							03/14/14	

Blank Spike (A403175-BS1)

3-Hydroxycarbofuran	4.4	3.0	ug/L	4.0		109	80-120			03/14/14	
Aldicarb	4.0	3.0	ug/L	4.0		101	80-120			03/14/14	
Aldicarb Sulfone	4.3	2.0	ug/L	4.0		106	80-120			03/14/14	
Aldicarb Sulfoxide	4.2	3.0	ug/L	4.0		104	80-120			03/14/14	
Carbaryl	4.3	5.0	ug/L	4.0		107	80-120			03/14/14	
Carbofuran	4.3	5.0	ug/L	4.0		108	80-120			03/14/14	
Methiocarb	4.3	2.0	ug/L	4.0		107	80-120			03/14/14	
Methomyl	4.2	2.0	ug/L	4.0		104	80-120			03/14/14	
Oxamyl	4.2	20	ug/L	4.0		105	80-120			03/14/14	
Propoxur	4.2	2.0	ug/L	4.0		106	80-120			03/14/14	

Blank Spike Dup (A403175-BSD1)

3-Hydroxycarbofuran	3.8	3.0	ug/L	4.0		95	80-120	14	20	03/14/14	
Aldicarb	3.5	3.0	ug/L	4.0		87	80-120	15	20	03/14/14	
Aldicarb Sulfone	3.8	2.0	ug/L	4.0		94	80-120	12	20	03/14/14	
Aldicarb Sulfoxide	3.8	3.0	ug/L	4.0		94	80-120	10	20	03/14/14	
Carbaryl	3.9	5.0	ug/L	4.0		97	80-120	10	20	03/14/14	
Carbofuran	3.8	5.0	ug/L	4.0		95	80-120	13	20	03/14/14	
Methiocarb	3.7	2.0	ug/L	4.0		93	80-120	14	20	03/14/14	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A403175

Prepared: 03/14/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank Spike Dup (A403175-BSD1)

Methomyl	3.7	2.0	ug/L	4.0		93	80-120	11	20	03/14/14	
Oxamyl	3.7	20	ug/L	4.0		93	80-120	12	20	03/14/14	
Propoxur	3.7	2.0	ug/L	4.0		93	80-120	13	20	03/14/14	

Matrix Spike (A403175-MS1), Source: A4C1026-01

3-Hydroxycarbofuran	4.1	3.0	ug/L	4.0	ND	102	65-135			03/14/14	
Aldicarb	4.0	3.0	ug/L	4.0	ND	99	65-135			03/14/14	
Aldicarb Sulfone	4.0	2.0	ug/L	4.0	ND	100	65-135			03/14/14	
Aldicarb Sulfoxide	3.9	3.0	ug/L	4.0	ND	97	65-135			03/14/14	
Carbaryl	4.0	5.0	ug/L	4.0	ND	99	65-135			03/14/14	
Carbofuran	3.8	5.0	ug/L	4.0	ND	96	65-135			03/14/14	
Methiocarb	3.9	2.0	ug/L	4.0	ND	98	65-135			03/14/14	
Methomyl	4.1	2.0	ug/L	4.0	ND	102	65-135			03/14/14	
Oxamyl	4.0	20	ug/L	4.0	ND	101	65-135			03/14/14	
Propoxur	4.0	2.0	ug/L	4.0	ND	95	65-135			03/14/14	

EPA 547 - Quality Control

Batch: A403209

Prepared: 03/17/2014

Prep Method: EPA 547

Analyst: RJB

Blank (A403209-BLK1)

Glyphosate	ND	25	ug/L							03/17/14	
Surrogate: AMPA	100			100		103	70-130			03/17/14	

Blank Spike (A403209-BS1)

Glyphosate	110	25	ug/L	100		111	70-130			03/17/14	
Surrogate: AMPA	100			100		105	70-130			03/17/14	

Blank Spike Dup (A403209-BSD1)

Glyphosate	120	25	ug/L	100		116	70-130	4	30	03/17/14	
Surrogate: AMPA	110			100		110	70-130			03/17/14	

Matrix Spike (A403209-MS1), Source: A4C0842-02

Glyphosate	110	25	ug/L	100	ND	112	70-130			03/17/14	
Surrogate: AMPA	110			100		103	70-130			03/17/14	

Matrix Spike Dup (A403209-MSD1), Source: A4C0842-02

Glyphosate	110	25	ug/L	100	ND	108	70-130	4	30	03/17/14	
Surrogate: AMPA	100			100		100	70-130			03/17/14	

EPA 548.1 - Quality Control

Batch: A403241

Prepared: 03/17/2014

Prep Method: EPA 548.1

Analyst: KHH

Blank (A403241-BLK1)

Endothall	ND	45	ug/L							03/18/14	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 548.1 - Quality Control

Batch: A403241

Prepared: 03/17/2014

Prep Method: EPA 548.1

Analyst: KHH

Blank Spike (A403241-BS1)

Endothall	14	45	ug/L	20		72	60-111			03/18/14	
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Blank Spike Dup (A403241-BSD1)

Endothall	15	45	ug/L	20		75	60-111	5	46	03/18/14	
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Matrix Spike (A403241-MS1), Source: A4C1103-01

Endothall	ND	45	ug/L	20	ND	0	10-122			03/18/14	MS1.0 Low
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EPA 549.2 - Quality Control

Batch: A403185

Prepared: 03/15/2014

Prep Method: EPA 549.2

Analyst: PYA

Blank (A403185-BLK1)

Diquat	ND	4.0	ug/L							03/19/14	
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Blank Spike (A403185-BS1)

Diquat	3.3	4.0	ug/L	4.0		83	70-130			03/19/14	
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Blank Spike Dup (A403185-BSD1)

Diquat	3.4	4.0	ug/L	4.0		85	70-130	3	30	03/19/14	
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Matrix Spike (A403185-MS1), Source: A4C1015-03

Diquat	3.3	4.0	ug/L	4.0	ND	82	70-130			03/19/14	
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Matrix Spike (A403185-MS2), Source: A4C1015-04

Diquat	3.3	4.0	ug/L	4.0	ND	81	70-130			03/19/14	
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Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of Oregon - NELAP	4021	State of Washington	C997
State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA

BSK is not accredited under the NELAC program for the following parameters: **NA**

A4C1134



Monterey Bay Analytical

Monte6227



03142014

Turnaround: Standard
Due Date: 3/21/2014



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$		Were correct containers and preservatives received for the tests requested?			
		<u>Yes</u>	No NA	<u>Yes</u>	No NA	
	If samples were taken today, is there evidence that chilling has begun?		Were there bubbles in the VOA vials? (Volatiles Only)			
	Yes	No <u>NA</u>	Yes	<u>No</u> NA		
	Did all bottles arrive unbroken and intact?		Was a sufficient amount of sample received?			
	<u>Yes</u>	No	<u>Yes</u>	No		
	Did all bottle labels agree with COC?		Do samples have a hold time <72 hours?			
	<u>Yes</u>	No	Yes	<u>No</u>		
	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?		Was PM notified of discrepancies? PM: _____ By/Time: _____			
	Yes	No <u>NA</u>	Yes	No <u>NA</u>		
Bottles Received <small>means preservation/chlorine checks are either N/A or are performed in the lab</small>	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?			
	Bacti Na ₂ S ₂ O ₃	—	—			
	None (P) ^{White Cap}	—	—			
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y N			
	HNO ₃ (P) ^{Red Cap}	—	—			
	H ₂ SO ₄ (P) ^{Yellow Cap}	pH ≤ 2	Y N			
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y N			
	NaOH + ZnAc (P)	pH ≥ 9	Y N			
	Dissolved Oxygen 300ml (g)	—	—			
	None (AG) 608/808/18082, 625, 632/6321, 8151, 8270	—	—	1C		
	H ₂ SO ₄ (AG) ^{Yellow Label} O&G, Diesel	—	—			
	Na ₂ S ₂ O ₃ 1 Liter (Brown P) 549	—	—	1C		
	Na ₂ S ₂ O ₃ (AG) ^{Blue Label} 547, 515, 526, 548	—	—	2A, 2C		
	Na ₂ S ₂ O ₃ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—			
	Na ₂ S ₂ O ₃ (CG) ^{Blue Label} 504, 505	—	—	4V		
	Na ₂ S ₂ O ₃ + MCAA (CG) ^{Orange Label} 531	pH = 3	<u>Y</u> N	1V		
	NH ₄ Cl (AG) ^{Purple Label} 552	—	—			
	EDA (AG) ^{Brown Label} DBPs	—	—			
	Ascorbic + Maleic (AG) ^{Light Green Label} 524.3	—	—			
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—	3V		
Buffer pH 4 (CG)	—	—				
None (CG)	—	—				
H ₃ PO ₄ (CG) ^{Salmon Label}	—	—				
Other:						
Asbestos 1Liter Plastic w/ Foil	—	—				
Low Level Hg / Metals Double Baggie	—	—				
Bottled Water	—	—				
Clear Glass Jar: 250 / 500 / 1 Liter	—	—				
Soil Tube Brass / Steel / Plastic	—	—				
Tedlar Bag / Plastic Bag	—	—				
Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials
	S P			S P		
Comments	S P			S P		
	<p style="text-align: right;">3/14/14</p>					

Labeled by: JHD @ 12:19

Labels checked by: G-587 @ JAT

CERTIFICATE OF ANALYSIS

Client: Monterey Bay Analytical Services 4 Justin Court, Suite D Monterey CA, 93940	Report Date: 03/21/14 16:22
Attention: David Holland	Received Date: 03/14/14 09:20
Phone: (831) 375-6227	Turn Around: 5 workdays
Fax: (831) 641-0734	Client Project: Cal Am
Work Order(s): 4C14029	

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

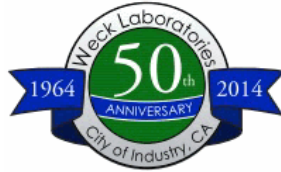
Dear David Holland :

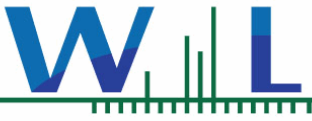
Enclosed are the results of analyses for samples received 03/14/14 09:20 with the Chain of Custody document. The samples were received in good condition, at 3.4 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Brandon Gee
Project Manager





Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

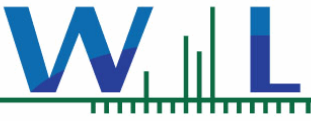
ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
CX-B2WQ Zone #4 (55-56 Ft bgs)	Josh Soboleu	12792	4C14029-01	Water	03/12/14 17:15

ANALYSES

Anions by IC, EPA Method 300.0/300.1/326

Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

4C14029-01 CX-B2WQ Zone #4 (55-56 Ft bgs)

Sampled: 03/12/14 17:15

Sampled By: Josh Soboleu

Matrix: Water

Sample Note: 12792

Anions by IC, EPA Method 300.0/300.1/326

Method: EPA 9056A

Batch: W4C0833

Prepared: 03/15/14 10:30

Analyst: Alice T. Lee

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Iodide	ND	250	ug/l	25	03/15/14 15:05	M-02

Chlorinated Pesticides and/or PCBs

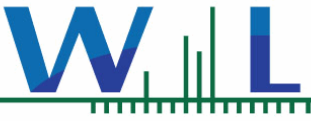
Method: EPA 508

Batch: W4C0838

Prepared: 03/15/14 12:16

Analyst: Maxwell Wang

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
4,4'-DDD	ND	0.010	ug/l	1	03/19/14 10:33	
4,4'-DDE	ND	0.010	ug/l	1	03/19/14 10:33	
4,4'-DDT	ND	0.010	ug/l	1	03/19/14 10:33	
Aldrin	ND	0.010	ug/l	1	03/19/14 10:33	
alpha-BHC	ND	0.010	ug/l	1	03/19/14 10:33	
Aroclor 1016	ND	0.10	ug/l	1	03/19/14 02:37	
Aroclor 1221	ND	0.10	ug/l	1	03/19/14 02:37	
Aroclor 1232	ND	0.10	ug/l	1	03/19/14 02:37	
Aroclor 1242	ND	0.10	ug/l	1	03/19/14 02:37	
Aroclor 1248	ND	0.10	ug/l	1	03/19/14 02:37	
Aroclor 1254	ND	0.10	ug/l	1	03/19/14 02:37	
Aroclor 1260	ND	0.10	ug/l	1	03/19/14 02:37	
beta-BHC	ND	0.010	ug/l	1	03/19/14 10:33	
Chlordane (tech)	ND	0.10	ug/l	1	03/19/14 02:37	
Chlorothalonil	ND	0.050	ug/l	1	03/19/14 02:37	
delta-BHC	ND	0.010	ug/l	1	03/19/14 10:33	
Dieldrin	ND	0.010	ug/l	1	03/19/14 10:33	
Endosulfan I	ND	0.010	ug/l	1	03/19/14 10:33	
Endosulfan II	ND	0.010	ug/l	1	03/19/14 10:33	
Endosulfan sulfate	ND	0.010	ug/l	1	03/19/14 10:33	
Endrin	ND	0.010	ug/l	1	03/19/14 10:33	
Endrin aldehyde	ND	0.010	ug/l	1	03/19/14 10:33	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	03/19/14 10:33	
Heptachlor	ND	0.010	ug/l	1	03/19/14 10:33	
Heptachlor epoxide	ND	0.010	ug/l	1	03/19/14 10:33	
Hexachlorobenzene	ND	0.010	ug/l	1	03/19/14 02:37	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	03/19/14 02:37	
Methoxychlor	ND	0.010	ug/l	1	03/19/14 10:33	
PCBs, Total	ND	0.50	ug/l	1	03/19/14 02:37	
Propachlor	ND	0.050	ug/l	1	03/19/14 02:37	
Toxaphene	ND	1.0	ug/l	1	03/19/14 02:37	
Trifluralin	ND	0.010	ug/l	1	03/19/14 02:37	
Surr: Decachlorobiphenyl	71 %	Conc:0.0680	70-130	%		
Surr: Tetrachloro-meta-xylene	81 %	Conc:0.0770	70-130	%		



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

4C14029-01 CX-B2WQ Zone #4 (55-56 Ft bgs)

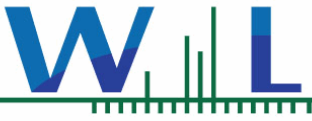
Sampled: 03/12/14 17:15

Sampled By: Josh Soboleu

Matrix: Water

Sample Note: 12792

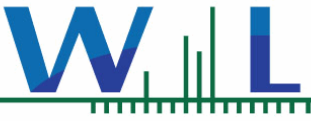
Chlorinated Pesticides and/or PCBs



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

QUALITY CONTROL SECTION



Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

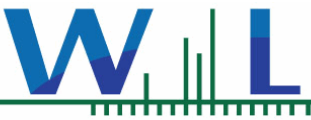
Batch W4C0833 - EPA 9056A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4C0833-BLK1)				Analyzed: 03/15/14 15:05						
Iodide	ND	10	ug/l							
LCS (W4C0833-BS1)				Analyzed: 03/15/14 15:05						
Iodide	40.2	10	ug/l	40.0		101	85-115			
Matrix Spike (W4C0833-MS1)				Source: 4C11006-01 Analyzed: 03/15/14 15:05						
Iodide	1090	250	ug/l	1000	ND	109	80-120			
Matrix Spike Dup (W4C0833-MSD1)				Source: 4C11006-01 Analyzed: 03/15/14 15:05						
Iodide	931	250	ug/l	1000	ND	93	80-120	15	20	

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4C0838 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4C0838-BLK1)				Analyzed: 03/18/14 22:01						
4,4'-DDD	ND	0.010	ug/l							
4,4'-DDE	ND	0.010	ug/l							
4,4'-DDT	ND	0.010	ug/l							
Aldrin	ND	0.010	ug/l							
alpha-BHC	ND	0.010	ug/l							
Aroclor 1016	ND	0.10	ug/l							
Aroclor 1221	ND	0.10	ug/l							
Aroclor 1232	ND	0.10	ug/l							
Aroclor 1242	ND	0.10	ug/l							
Aroclor 1248	ND	0.10	ug/l							
Aroclor 1254	ND	0.10	ug/l							
Aroclor 1260	ND	0.10	ug/l							
beta-BHC	ND	0.010	ug/l							
Chlordane (tech)	ND	0.10	ug/l							
Chlorothalonil	ND	0.050	ug/l							
delta-BHC	ND	0.010	ug/l							
Dieldrin	ND	0.010	ug/l							
Endosulfan I	ND	0.010	ug/l							
Endosulfan II	ND	0.010	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							
Endrin	ND	0.010	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.010	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.010	ug/l							
Hexachlorobenzene	ND	0.010	ug/l							
Hexachlorocyclopentadiene	ND	0.050	ug/l							
Methoxychlor	ND	0.010	ug/l							
PCBs, Total	ND	0.50	ug/l							



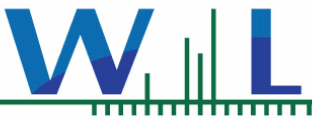
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Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4C0838 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4C0838-BLK1)										
Analyzed: 03/18/14 22:01										
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
Surr: Decachlorobiphenyl	0.0894		ug/l	0.100		89	70-130			
Surr: Tetrachloro-meta-xylene	0.0785		ug/l	0.100		78	70-130			
LCS (W4C0838-BS1)										
Analyzed: 03/19/14 09:01										
4,4'-DDD	0.0875	0.010	ug/l	0.100		88	55-142			
4,4'-DDE	0.0976	0.010	ug/l	0.100		98	49-129			
4,4'-DDT	0.103	0.010	ug/l	0.100		103	54-160			
Aldrin	0.0787	0.010	ug/l	0.100		79	29-115			
alpha-BHC	0.0900	0.010	ug/l	0.100		90	59-131			
beta-BHC	0.0881	0.010	ug/l	0.100		88	63-136			
delta-BHC	0.105	0.010	ug/l	0.100		105	59-137			
Dieldrin	0.0934	0.010	ug/l	0.100		93	59-135			
Endosulfan I	0.0787	0.010	ug/l	0.100		79	28-138			
Endosulfan II	0.0792	0.010	ug/l	0.100		79	53-133			
Endosulfan sulfate	0.0837	0.010	ug/l	0.100		84	58-155			
Endrin	0.0857	0.010	ug/l	0.100		86	57-148			
Endrin aldehyde	0.0801	0.010	ug/l	0.100		80	45-139			
gamma-BHC (Lindane)	0.0846	0.010	ug/l	0.100		85	59-129			
Heptachlor	0.0893	0.010	ug/l	0.100		89	42-136			
Heptachlor epoxide	0.0884	0.010	ug/l	0.100		88	59-134			
Methoxychlor	0.0725	0.010	ug/l	0.100		72	56-167			
Surr: Decachlorobiphenyl	0.0927		ug/l	0.100		93	70-130			
Surr: Tetrachloro-meta-xylene	0.0749		ug/l	0.100		75	70-130			
LCS Dup (W4C0838-BSD1)										
Analyzed: 03/18/14 23:02										
4,4'-DDD	0.0880	0.010	ug/l	0.100		88	55-142	0.5	25	
4,4'-DDE	0.0902	0.010	ug/l	0.100		90	49-129	8	25	
4,4'-DDT	0.103	0.010	ug/l	0.100		103	54-160	0.4	25	
Aldrin	0.0739	0.010	ug/l	0.100		74	29-115	6	25	
alpha-BHC	0.0857	0.010	ug/l	0.100		86	59-131	5	25	
beta-BHC	0.0829	0.010	ug/l	0.100		83	63-136	6	25	
delta-BHC	0.0995	0.010	ug/l	0.100		100	59-137	6	25	
Dieldrin	0.0892	0.010	ug/l	0.100		89	59-135	5	25	
Endosulfan I	0.0723	0.010	ug/l	0.100		72	28-138	8	25	
Endosulfan II	0.0775	0.010	ug/l	0.100		78	53-133	2	25	
Endosulfan sulfate	0.0866	0.010	ug/l	0.100		87	58-155	3	25	
Endrin	0.0725	0.010	ug/l	0.100		72	57-148	17	25	
Endrin aldehyde	0.0658	0.010	ug/l	0.100		66	45-139	20	25	
gamma-BHC (Lindane)	0.0858	0.010	ug/l	0.100		86	59-129	1	25	
Heptachlor	0.0845	0.010	ug/l	0.100		85	42-136	6	25	
Heptachlor epoxide	0.0847	0.010	ug/l	0.100		85	59-134	4	25	
Methoxychlor	0.0822	0.010	ug/l	0.100		82	56-167	13	25	
Surr: Decachlorobiphenyl	0.0893		ug/l	0.100		89	70-130			

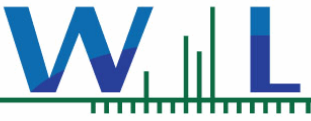


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Monterey CA, 93940

Date Received: 03/14/14 09:20
Date Reported: 03/21/14 16:22

Chlorinated Pesticides and/or PCBs - Quality Control**Batch W4C0838 - EPA 508**

Analyte	Reporting Result	Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W4C0838-BSD1)				Analyzed: 03/18/14 23:02						
<i>Surr: Tetrachloro-meta-xylene</i>	<i>0.0761</i>		<i>ug/l</i>	<i>0.100</i>		<i>76</i>	<i>70-130</i>			



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4 Justin Court, Suite D
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Date Received: 03/14/14 09:20
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Notes and Definitions

M-02	Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

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pH QC Summary (SM 4500 H+)

Date Analyzed: 3/12/2014

	Value (pH Units)	Result (pH Units)	% Rec	Acceptance Criteria %Rec
IPC	6.86	6.91	100.7	95-105

Sample ID	Sample (pH Units)	Sample Dup (pH Units)	% RPD	Acceptance Criteria % RPD
AB12869	7.1	7.1	0.0	10
AB12875	7.4	7.4	0.0	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

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TDS/TSS QC Summary (SM 2540C/D)

Date Analyzed: 3/13/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC 100	100	111	111	80-120
IPC 500	500	503	100.6	90-110

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12695	ND	ND	0.0	10
AB12775	437	434	0.7	10
AB12817	131	137	4.5	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Differer

ice; Rec = Recovery

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Turbidity QC Summary (EPA 180.1)

Date Analyzed: 3/13/2014

	Value (NTU)	Result (NTU)	% Rec	Acceptance Criteria %Rec
IPC	1.00	1.04	104.0	95-105
IPC	1.00	0.97	97.1	95-105

Sample ID	Sample (NTU)	Sample Dup (NTU)	% RPD	Acceptance Criteria % RPD
AB12871	0.770	0.776	-0.01	10
AB12896	1.490	1.630	-0.09	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

EPA 200.7 QC

Batch # 20140313

Analyte/ WL	Range	IC Blank	Prep Blank	LCS Value	%Rec 85-115%	LCSD Value	%Rec 85-115%	%Diff	IC Verification			QCS (95-105%)		
									Value	Result	%Rec	Value	Result	%Rec
B 249.678	0.05-5ppm	0.01	0.00	1.00	100.4%	1.03	103.1%	2.7%	1	1.02	101.5%	1	0.98	97.8%
B 249.772	0.05-5ppm	0.01	0.01	1.01	100.7%	1.03	103.0%	2.3%	1	1.02	102.0%	1	0.99	98.6%
Ca 317.933	50-300ppm	-5.25	-5.24	49.3	98.5%	50.3	100.7%	2.2%	50	49.5	99.0%	50	48.7	97.4%
Ca 396.847	0.5-50ppm	-0.15	-0.14	49.8	99.7%	50.3	100.6%	0.9%	50	50.2	100.4%	50	48.8	97.6%
Fe 238.204	10ppb-100ppm	-0.64	0.19	998	99.8%	1014	101.4%	1.6%	1000	1003	100.3%	1000	992	99.2%
Fe 259.940	10ppb-100ppm	0.30	-0.50	995	99.5%	1013	101.3%	1.8%	1000	1001	100.1%	1000	993	99.3%
K 766.491	0.5-750ppm	0.20	0.13	9.9	98.6%	10.0	100.4%	1.8%	10	10.0	100.5%	10	9.8	98.0%
Mg 202.582	50-1000ppm	-1.81	-1.83	50.2	100.4%	51.3	102.5%	2.2%	50	50.8	101.6%	50	49.7	99.4%
Mg 279.078	0.5-50ppm	0.04	0.02	48.9	97.8%	50.2	100.4%	2.6%	50	49.8	99.7%	50	49.0	97.9%
Mn 257.610	10ppb-11ppm	-4.82	-5.60	995	99.5%	1016	101.6%	2.1%	1000	1001	100.1%	1000	979	97.9%
Mn 260.568	10ppb-11ppm	-5.16	-5.50	993	99.3%	1012	101.2%	1.9%	1000	999	99.9%	1000	978	97.8%
Na 568.821	50-1000ppm	4.56	4.98	48.4	96.9%	48.9	97.8%	0.9%	50	48.0	95.9%	50	47.3	94.5%
Na 589.592	0.5-50ppm	0.25	0.17	49.6	99.1%	50.2	100.4%	1.3%	50	50.0	100.0%	50	48.6	97.3%
Si 251.611	0.5-200ppm	0.09	0.05	50.0	100.0%	50.9	101.8%	1.7%	50	50.6	101.3%	107	105.5	98.6%
Si 252.411	0.5-200ppm	0.08	0.02	49.7	99.3%	50.7	101.4%	2.1%	50	50.5	100.9%	107	105.3	98.4%

Sample ID AB12759

Analyte/ WL	Sample Value	MS Value	%Rec 70-130%	MSD Value	%Rec 70-130%	%Diff	CCV (90-110%)			%Diff 10%	CC Blank
							Value	Result	%Rec		
B 249.678	0.00	0.97	96.6%	0.98	97.6%	1.1%	1	0.97	96.7%	4.8%	-0.01
B 249.772	0.01	0.97	96.7%	0.98	97.5%	0.8%	1	0.96	96.5%	5.6%	0.00
Ca 317.933	30.0	81.6	103.3%	81.1	102.3%	0.6%	50	47.9	95.8%	3.4%	-5.26
Ca 396.847	31.6	73.7	84.2%	73.2	83.1%	0.7%	50	46.4	92.9%	7.8%	-0.17
Fe 238.204	3	994	99.1%	976	97.3%	1.8%	1000	969	96.9%	3.5%	-1.27
Fe 259.940	4	986	98.2%	967	96.4%	1.9%	1000	953	95.3%	5.0%	-1.91
K 766.491	2.9	12.0	91.8%	11.9	90.7%	0.9%	10	9.3	92.7%	8.1%	0.07
Mg 202.582	8.4	57.7	98.6%	57.9	99.0%	0.3%	50	47.8	95.5%	6.1%	-1.85
Mg 279.078	9.7	57.0	94.5%	57.2	95.0%	0.4%	50	47.7	95.3%	4.5%	0.02
Mn 257.610	-5	954	95.9%	960	96.5%	0.6%	1000	953	95.3%	5.0%	-5.16
Mn 260.568	-4	964	96.8%	962	96.6%	0.2%	1000	957	95.7%	4.3%	-5.22
Na 568.821	39.1	80.5	82.8%	83.1	88.0%	3.2%	50	45.3	90.6%	5.7%	4.82

Na 589.592	41.5	86.4	89.8%	85.5	88.0%	1.0%	50	46.4	92.7%	7.5%	0.17
Si 251.611	40.8	86.8	91.8%	87.4	93.1%	0.7%	50	48.2	96.5%	4.9%	-0.04
Si 252.411	40.6	86.7	92.2%	87.1	93.1%	0.5%	50	48.1	96.3%	4.7%	-0.04

300.0 QC Summary

All units expressed in mg/L

	F	Cl	NO2-N	SO4	Br	NO3-N
	2	20	2	20	2	2
IPC	2.25	19.68	2.07	18.86	2.11	1.99
Recovery 90-110%	112.49	98.38	103.63	94.31	105.41	99.33
CCV1	2.44	20.04	2.09	19.13	2.11	2.00
Recovery 90-110%	122.11	100.20	104.34	95.67	105.54	99.88
RPD 10%	8.20	1.83	0.69	1.43	0.12	0.56
CCV2	2.16	19.62	2.09	19.00	2.10	1.98
Recovery 90-110%	108.15	98.10	104.59	94.98	105.07	99.22
RPD 10%	3.93	0.29	0.92	0.71	0.32	0.11
AB12880	0.28	143.60	0.12	289.58	0.18	23.93
AB12880+LFM	2.45	164.85	1.93	311.15	1.83	26.17
AB12880+LFMD	2.48	164.58	1.93	311.26	1.85	26.15
Average	2.47	164.71	1.93	311.21	1.84	26.16
Recovery 80-120%	109.39	105.58	90.57	108.12	83.36	111.70
RPD 10%	1.21	0.08	0.05	0.02	0.50	0.03
AB12890	0.22	23.67	0.45	125.80	0.00	25.36
AB12890+LFM	2.42	43.76	2.24	144.83	1.66	27.62
AB12890+LFMD	2.42	43.92	2.25	144.95	1.66	27.42
Average	2.42	43.84	2.25	144.89	1.66	27.52
Recovery 80-120%	109.99	100.86	90.08	95.42	82.99	107.99
RPD 10%	0.20	0.19	0.26	0.04	0.20	0.37

PO4-P

2

1.93
96.65
1.96
98.06
1.45
1.96
97.78
1.17
0.00
1.35
1.34
1.35
67.27
0.12
0.00
1.53
1.53
1.53
76.48
0.15

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Phosphorus QC Summary (Hach 8190)

Date: 3/14/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
LCS	0.200	0.209	104.5	90-110
QCS	0.200	0.211	105.5	90-110
CCV	0.200	0.218	109	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12792	0.000	0.200	0.161	0.154	80.5	77	4.4	85-120	10

Note: possible matrix interference observed. Data accepted based on LCS, QCS, and CCV recoveries.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;

RPD = Relative Percent Difference; Rec = Recovery

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Specific Conductance QC Summary (SM 2510B)

Date Analyzed: 3/14/2014

	Value (umhos/cm)	Result (umhos/cm)	% Rec	Acceptance Criteria %Rec
IPC	1412	1412	100.0%	95-105

Sample ID	Sample (umhos/cm)	Sample Dup (umhos/cm)	% RPD	Acceptance Criteria % RPD
AB12816	37640	37400	0.6%	10
AB12872	993	987	0.6%	10
AB12882	1064	1072	0.7%	10
AB12892	878	881	0.3%	10
AB12910	578	570	1.4%	10
AB12920	1338	1319	1.4%	10
AB12923	1765	1760	0.3%	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;

RPD = Relative Percent Difference; Rec = Recovery

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TDS/TSS QC Summary (SM 2540C/D)

Date Analyzed: 3/14/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC 100	100	100	100	80-120
IPC 500	500	494	98.8	90-110

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12905	546	540	1.1	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

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Kjehldahl Nitrogen QC Summary (SM 4500-NH3)

Date: 3/17/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	5.0	5.200	104	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12627	2.400	5.000	7.200	7.300	96	98	1.4	85-120	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

QC Summary for 200.8

Spiked Sample
ID AB12763

Date Analyzed
Monday, March 17, 2014

	IPC Blank	QCS 50	Prep Blank	LCS	LCSD	LCS/LCSD	Sample	Spiked	MS	MSD	MS-MSD	LFB	LFB	LFB-LFB	IPC Blank
	ug/L	%Rec.	ug/L	% Rec	%Rec	%RPD	ug/L	ug/L	%Rec.	% Rec.	% RPD	% Rec	% Rec	% RPD	ug/L
		85-115%		70-130%	70-130%	20%			70-130%	70-130%	20%	85-115%	85-115%	20%	
Lithium	0.01	101.6	0.07	112.3	117.0	4.09	1.0	50	120.2	111.9	7.15	99.4	111.2	11.21	0.03
Aluminum	-0.17	105.0	1.81	102.7	103.0	0.32	9.8	50	114.9	104.6	9.43	104.2	103.8	0.42	-0.11
Nickel	-0.01	98.5	0.05	98.1	100.4	2.36	-0.1	50	96.2	90.7	5.96	99.3	93.6	5.92	-0.02
Copper	-0.01	99.0	1.35	103.8	106.9	2.96	1.0	50	101.0	94.5	6.64	99.2	98.6	0.70	0.12
Zinc	-0.14	115.3	10.44	117.9	116.5	1.15	25.9	50	107.8	139.1	25.38	98.7	105.4	6.56	1.20
Arsenic	-0.02	97.7	-0.44	105.4	106.1	0.66	0.4	50	113.3	112.2	0.96	100.5	105.4	4.74	-0.09
Selenium	0.08	103.4	-0.04	105.3	108.1	2.61	2.4	250	121.1	117.9	2.73	101.6	106.9	5.06	0.03
Strontium	0.00	104.6	0.13	105.9	107.0	1.10	1.4	50	107.3	102.4	4.73	99.6	102.9	3.25	0.00
Molybdenum	0.01	97.5	0.02	98.8	98.6	0.21	0.1	50	95.2	90.9	4.68	99.2	90.0	9.70	0.01
Barium	0.00	99.1	0.07	98.2	98.6	0.45	0.7	50	97.8	93.4	4.66	100.0	94.5	5.73	-0.01

MS = Matrix Spike MSD = Matrix Spike Duplicate; LFB = Laboratory Fortified Blank; LFBD = Laboratory Fortified Blank Duplicate RPD = Relative Percent Difference

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Alkalinity QC Summary (SM 2320B)

Date Analyzed: 3/19/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	40	40.1	100.25	95-105
IPC	40	40.5	101.25	95-105
IPC	40	40.5	101.25	95-105
IPC	40	40.5	101.25	95-105
IPC	40	40.7	101.75	95-105

Sample ID	Sample (mg/L)	Sample Dup (mg/L)	% RPD	Acceptance Criteria % RPD
AB12790	247.7	248.3	0.24	10
AB12870	241.1	241.5	0.17	10
AB12880	272.5	271.9	0.22	10
AB12890	191.1	191.7	0.31	10
AB12908	1.1	1.1	0.00	10
AB12918	306.1	304.3	0.59	10
AB12965	232.5	231.3	0.52	10
AB12975	203.3	204.1	0.39	10
AB13078	370.5	360.5	2.74	10

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Ammonia by Electrode QC Summary (SM 4500-NH3)

Date: 3/21/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC (Low)	0.050	0.0451	90.2	90-110
IPC (High)	0.500	0.461	92.2	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB13151	0.009	0.500	0.406	0.439	79.4	86.0	7.8	85-120	10

Note: The MS and MSD does not meet the acceptance criteria for the recovery percent. The data is accepted because the recovery percent for the IPC (Low) and IPC (High) meet the acceptance criteria.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; IPC = Instrument Performance Check
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

Phosphorus QC Summary (Hach 8190)

Date: 3/21/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
LCS	0.200	0.214	107	90-110
QCS	0.200	0.185	92.5	90-110
CCV	0.200	0.216	108	90-110

Spiked Sample ID	Sample (mg/L)	Spiked (mg/L)	MS (mg/L)	MSD (mg/L)	MS % Rec	MSD % Rec	MS-MSD % RPD	Acceptance Criteria %	
								MS/MSD	RPD
AB12896	0.050	0.200	0.267	0.268	108.5	109	0.4	85-120	10

Note: possible matrix interference observed. Data accepted based on LCS, QCS, and CCV recoveries.

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source;
 RPD = Relative Percent Difference; Rec = Recovery

4 Justin Court Ste D, Monterey, CA 93940
 831.375.MBAS (6227), 831.641.0734 (Fax)
 MontereyBayAnalytical@usa.net
<http://www.MBASinc.com>

MBAS QC Summary (SM 5540C)

Date Analyzed: 3/13/2014

	Value (mg/L)	Result (mg/L)	% Rec	Acceptance Criteria %
IPC	0.050	0.042	84	80-120
IPC	0.500	0.491	98.2	80-120
IPC	0.050	0.059	118	80-120

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; SS = Second Source; RPD = Relative Percent Difference; Rec = Recovery

*Ceres Analytical Laboratory, Inc.
4919 Windplay Dr., Suite 1
El Dorado Hills, CA 95762*

March 19, 2014

Ceres ID: 10296

Monterey Bay Analytical
Mr. David Holland
4 Justin Court, Ste. D
Monterey, CA 93940

Mr. Holland,

Enclosed please find the results for one aqueous sample received on March 14, 2014. This sample was analyzed for 2,3,7,8-TCDD by EPA 1613. Rush 5 day turn-around time was provided for this work.

This work was authorized under M.B.A.'s Project # 12896.

The report consists of a Cover Letter, Sample Inventory (Section I), Data Summary (Section II), Sample Tracking (Section VI), and Qualifiers/Abbreviations (Section VII). Raw Data (Section III), Continuing Calibration (Section IV), and Initial Calibration (Section V) are available in a full report (.pdf format) upon request.

The Sample Tracking Section includes all external and internal chain of custodies, laboratory bench sheets, and any special instructions received.

If you have any questions regarding this report, please feel free to contact me at (888)932-5011.

Sincerely,



James M. Hedin
Director of Operations/CEO
jhedin@ceres-lab.com

Section I: Sample Inventory

<u>Ceres Sample ID:</u>	<u>Sample ID</u>	<u>Date Received</u>	<u>Collection Date & Time</u>
10296-001	CX-B2WQ Zone #4 (55-65 ft bags)	3/14/2014	3/12/2014 17:15

Section II: Data Summary

Sample ID: Method Blank								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-MB001	Date Received:	NA
Project:	12896		Sample Size:	1.000 L	QC Batch #:	1168	Date Extracted:	18-Mar-14
Date Collected:	NA				ZB-5 MS Analysis Date:	19-Mar-14		
Time Collected:	NA							
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	3.64			<u>IS</u> ¹³ C-2,3,7,8-TCDD	107	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	105	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst:	JMH			Reviewed by:	BS			

Sample ID: Ongoing Precision and Recovery								
Client Data			Sample Data		Laboratory Data			
Name:	Monterey Bay Analytical		Matrix:	Aqueous	Lab Sample ID:	0-OPR001	Date Received:	NA
Project:	12896		Sample Size:	1.000 L	QC Batch #:	1168	Date Extracted:	18-Mar-14
Date Collected:	NA				ZB-5 MS Analysis Date:	19-Mar-14		
Time Collected:	NA							
Analyte	Conc. (ng/ml)	Limits^a	Qualifiers		Labeled Standards	Conc.	Limits^a	Qualifiers
2,3,7,8-TCDD	9.89	7.3-14.6			IS ¹³ C-2,3,7,8-TCDD	103	25-141	
					CRS ³⁷ Cl ₄ -2,3,7,8-TCDD	10.3	3.7-15.8	
					<i>a. Method acceptance criteria .</i>			
Analyst: JMH				Reviewed by: BS				

Sample ID: CX-B2WQ Zone #4								
Client Data			Sample Data		Laboratory Data			
Name: Monterey Bay Analytical			Matrix: Aqueous		Lab Sample ID: 10296-001		Date Received: 14-Mar-14	
Project: 12896			Sample Size: 1.047 L		QC Batch #: 1168		Date Extracted: 18-Mar-14	
Date Collected: 12-Mar-14					ZB-5 MS Analysis Date: 19-Mar-14			
Time Collected: 17:15								
Analyte	Conc. (pg/L)	DL^a	EMPC^b	Qualifiers	Labeled Standards	% R	LCL-UCL^c	Qualifiers
2,3,7,8-TCDD	ND	4.67			<u>IS</u> ¹³ C-2,3,7,8-TCDD	102	31 - 137	
					<u>CRS</u> ³⁷ Cl ₄ -2,3,7,8-TCDD	101	42 - 164	
					<i>a.</i> Sample specific estimated detection limit. <i>b.</i> Estimated maximum possible concentration. <i>c.</i> Lower control limit - upper control limit.			
Analyst: JMH				Reviewed by: BS				

Section VI: Sample Tracking

Ceres Analytical Laboratory, Inc.

4919 Windplay Dr. Suite 1
 El Dorado Hills, CA 95762
 Tel: (916)932-5011

10298
Chain of Custody

Please Print in Pen

Ceres Use Only

Pg Appendix G

Ceres Project ID: 10296
 Temperature: 2.8 °C

Reports and invoices will be delivered by email in .pdf format

Client Information	Invoice Information (if different from Client Info)	Project Information
Company Name: <u>Monterey Bay Analytical</u> Contact Name: <u>David Holland</u> Address: <u>4 Justin Court Ste D Monterey CA 93940</u> Ph: <u>831-375-6227</u> Email: <u>montereybayanalytical@usa.net</u>	Company Name: <u>Same</u> Contact Name: _____ Address: _____ Ph: _____ Fx: _____ Email: _____	Ceres Quote #: _____ P.O. # _____ Project ID: _____ TAT (business days) _____ Std 15 days; Rush TAT available please call

Matrix abbreviations:

A: Aqueous S: Soil AS: Ash DW: Drinking Water
 E: Effluent SD: Sediment C: Clay SO: Solid
 I: Influent SL: Sludge CS: Clay Slurry O: Other (please comment)

Sample ID	Sample Collection			Matrix	# of containers	EPA 1613	EPA 8290	NCASI 551	EPA 8280	EPA 613	Other	TEF	
	Date	Time	Matrix									<input type="checkbox"/> 1998 WHO <input type="checkbox"/> 2005 WHO <input type="checkbox"/> Other	
												Comments	
1	CX-B1WQ Zone #4 (55-65 ft bags)	3/12/2014	17:15	Aq	2	X							12896
2	<i>↑ changed to 2 per S. McGinnis</i>												(2,3,7,8 TCDD only)
3	<i>3/14/14</i>												5 day Rush Please
4													
5													
6													
7													
8													
9													
10													
11													
12													

Samples will be disposed of 45 days after submission of report, unless other provisions have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (signature and Printed Name)	Date	Time
David Holland <i>[Signature]</i>	3/13/2014	12:00	<i>[Signature]</i> Debra Heelin	3/14/14	9:47

Client understands that all terms described in the proposals, quotations, and/or the general terms and conditions of Ceres Analytical Laboratory will be followed.
 Ceres Analytical Laboratory reserves the right to terminate its service or withhold delivery of reports, if in Ceres' discretion the terms of the project have been broken.

Sample Receipt Check List

Ceres ID: 10296	Date/Time: 3/14/14 9:43
Client Project ID: 12896	Received Temperature: 2.8°C Acceptable: (Y) / N
Chain of Custody Relinquished by signed?	(Y) / N
Custody Seals? Present?	Y / N
Intact?	Y / N
NA:	(NA)
Unlabeled / Illegible Samples	Y (N)
Proper Containers:	(Y) / N
Preservation Acceptable (Chemical or Temperature)?	(Y) / N
Drinking Water, Sodium Thiosulfate present?	Y / N (NA)
List COC discrepancies: CX - B2WQ on bottle CX - B1WQ on chain of custody	
List Damaged Samples: great 3/14/14	

Ceres Analytical Laboratory

Process Request

Ceres ID: 10296 PB: 1168 Sample #: 1 Due Date: 3/19/14

Matrix (circle one):

Drinking Water

Aqueous

Effluent

Influent

Ash

Solid Soil

Sediment

Sludge

Clay/Clay Slurry

Other: _____

Method (check one):

 1613 2,3,7,8-TCDD 8290 2,3,7,8-TCDD 1613 2,3,7,8-TCDD/F 8290 2,3,7,8-TCDD/F 1613 Cl₄-Cl₈ 8290 Cl₄-Cl₈ 8280 2,3,7,8-TCDD NCASI 551 8280 2,3,7,8-TCDD/F 8280 Appendix IX 8280 Cl₄-Cl₈

Instructions:

Method: 1613
 SOP #: 301.1

Ceres Analytical Laboratory

Sample Prep Bench Sheet

Ceres ID	Client ID	Ver.	wt/vol	ISS/PAR	CSS	AP	AB/AC	FC	RSS
				chem/date/witness	chem/date/witness		chem/date/witness		chem/date/witness
0-1168-MB001 ^(A)	Method Blank		1.000L	3/18/14 ^(A)	3/19/14 ^(A)	NA	3/19/14	NA	3/19/14 ^(A)
0-1168-OPR001	OPR		1.000L	↓	↓	↓	↓	↓	↓
10296-1168-001	CX-B2WQ Zone #4	✓	1.047L	↓	↓	↓	↓	↓	↓

Comments: ^(A) Spiked w/ NSS ^(B) Double Spiked by mistake

Soxhlet Start: 15:003/18/14
 Soxhlet Stop: 07:203/19/14

Samples Logged out by: J 09:00 3/18/14
 Samples Returned by: NA
 Note samples Depleted: 1A

Sample Extracts Storage Location: Box 8
 Extracts to Instrument: 11:27 3/19/14
 Extracts returned to Storage Location: _____

Method: 1613
 SOP #: 301.1

Ceres Analytical Laboratory

Sample Prep Bench Sheet

Standard	Standard ID	Vol.	Expiration Date	
ISS	S031212A	10ul	3/12/17	20
NSS	S031212B	10ul	3/12/17	20
CSS	S031212C	10ul	3/12/17	20
RSS	S031212D	20ul	3/12/17	40

Double spiked by mistake

Solvents/Solutions/Packing Materials

Name	Amount	Lot #	Exp. Date
Toluene	450ml	134020	8/17/14
Hexane	30,90,100,20	53263	9/19/14
Sigel	4g	P030114A	9/1/14
base gel	4g	P031914A	9/19/14
acid gel	8g	P031114A	9/11/14
acid A1	6g	P031114B	9/11/14
Na2SO4	1.5g	P120413A	6/4/14
20% Acry Hex	30ml	L031914A	9/19/14

Section VII: Qualifiers/Abbreviations

J	Concentration found below the lower quantitation limit but greater than zero.
B	Analyte present in the associated Method Blank.
E	Concentration found exceeds the Calibration range of the HRGC/HRMS.
D	This analyte concentration was calculated from a dilution.
X	The concentration found is the estimated maximum possible concentration due to chlorinated diphenyl ethers present in the sample.
H	Recovery limits exceeded. See cover letter.
*	Results taken from dilution.
Conc.	Concentration Found
DL	Calculated Detection Limit
ND	Non-Detect
% Rec.	Percent Recovery



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Travis Peterson
California American Water
836 Carmel Ave.
Monterey, CA 93940

RE: Report for A3J0709 Water Quality Analysis

Dear Travis Peterson,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 10/8/2013. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Michael Ng, Project Manager

If additional clarification of any information is required, please contact your Project Manager, Michael Ng, at (800) 877-8310 or (559) 497-2888 x118.



Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: California American Water
Report To: Travis Peterson
Project #: Water Quality Analysis
Received: 10/08/2013 - 09:53
Report Due: 10/22/2013

Invoice To: California American Water
Invoice Attn: Accounts Payable
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 5.6	COC/Labels Agree
	Packing Material - Other
	Sample(s) were received in temperature range.
	Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- DL1.0 Sample required a dilution due to the matrix or high concentration of a non-target analyte.
- HT1.0 Holding time exceeded. Sample was received at the lab past holding time.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- SR1.0 Surrogate recovery exceeds upper control limit. No material impact as sample results are Non-Detected.
- SR3.0 Surrogate recovery exceeds control limits. No material impact as spike recoveries are all within control ranges.
- X.0 Sample filtered prior to analysis

Report Distribution

Recipient(s)	Report Format
Travis Peterson	Final.rpt
Sarp Sekeroglu	Final.rpt

Certificate of Analysis

Sample ID: A3J0709-01
Sampled By: Client
Sample Description: Water Samples

Sample Date - Time: 10/05/13 - 00:00
Matrix: Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Alkalinity as CaCO3	SM 2320 B	330	3.0	mg/L	1	A311859	10/08/13	10/08/13	X.0
Bicarbonate as CaCO3	SM 2320 B	330	3.0	mg/L	1	A311859	10/08/13	10/08/13	X.0
Carbonate as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A311859	10/08/13	10/08/13	X.0
Hydroxide as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A311859	10/08/13	10/08/13	X.0
Ammonia as N	SM 4500-NH3 G	15	0.10	mg/L	1	A312186	10/15/13	10/16/13	X.0
Bromide	EPA 300.1	43	1.0	mg/L	200	A312042	10/10/13	10/10/13	X.0
Surrogate: Dichloroacetate	EPA 300.1	108 %	<i>Acceptable range: 90-115 %</i>			<i>Qualifiers - X.0</i>			
Chloride	EPA 300.0	12000	200	mg/L	200	A311905	10/08/13	10/08/13	X.0
Color, Apparent	SM 2120 B	250	10	CU	10	A311846	10/08/13 15:36	10/08/13	
Conductivity @ 25C	SM 2510 B	30000	1.0	umhos/cm	1	A311859	10/08/13	10/08/13	
Fluoride	SM 4500-F C	0.12	0.10	mg/L	1	A312667	10/23/13	10/23/13	
Mass Balance-Anions		380		meq/L					
Mass Balance-Dissolved Cations		360		meq/L					
MBAS, Calculated as LAS, mol wt 340	SM 5540 C	ND	0.25	mg/L	5	A311939	10/09/13 05:20	10/09/13	HT1.0
Nitrate as NO3	EPA 300.0	ND	200	mg/L	200	A311905	10/08/13 17:27	10/08/13	DL1.0, X.0
Nitrite as N	EPA 300.0	ND	10	mg/L	200	A311905	10/08/13 17:27	10/08/13	DL1.0, X.0
Threshold Odor	SM 2150 B	20	1.0	T.O.N.	1	A311846	10/08/13 14:47	10/08/13	
Orthophosphate as P	SM 4500-P E	ND	0.010	mg/L	1	A311969	10/09/13 14:45	10/09/13	HT1.0, X.0
pH (1)	SM 4500-H+ B	7.4		pH Units	1	A311859	10/08/13	10/08/13	
pH Temperature in °C		21.6							
Phosphorus - Dissolved (1)	EPA 365.4	0.18	0.10	mg/L	1	A312089	10/11/13	10/16/13	
Sulfate as SO4	EPA 300.0	1400	400	mg/L	200	A311905	10/08/13	10/08/13	X.0
Total Dissolved Solids	SM 2540C	22000	5.0	mg/L	1	A312067	10/11/13	10/16/13	
Total Kjeldahl Nitrogen - Dissolved (1)	EPA 351.2	16	1.0	mg/L	1	A312089	10/11/13	10/16/13	
Total Oxidizable Nitrogen, as N - Dissolved (1)	SM 4500-NO3 F	ND	0.10	mg/L	1	A312125	10/14/13	10/14/13	
Turbidity	SM 2130 B	150	2.0	NTU	20	A311846	10/08/13 15:36	10/08/13	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.7	ND	0.50	mg/L	10	A311945	10/09/13	10/16/13	
Arsenic	EPA 200.8	3.4	2.0	ug/L	1	A311945	10/09/13	10/14/13	
Barium - Dissolved (1)	EPA 200.7	0.16	0.050	mg/L	1	A312073	10/11/13	10/15/13	
Boron - Dissolved (1)	EPA 200.7	2.1	0.10	mg/L	1	A312073	10/11/13	10/15/13	
Calcium	EPA 200.7	590	1.0	mg/L	10	A311945	10/09/13	10/16/13	
Calcium - Dissolved (1)	EPA 200.7	590	0.10	mg/L	1	A312073	10/11/13	10/15/13	
Copper	EPA 200.8	37	5.0	ug/L	1	A311945	10/09/13	10/14/13	
Hardness as CaCO3	SM 2340B	4700	4.1	mg/L					
Iron	EPA 200.7	20	0.30	mg/L	10	A311945	10/09/13	10/16/13	
Iron - Dissolved (1)	EPA 200.7	6.0	0.030	mg/L	1	A312073	10/11/13	10/15/13	

Certificate of Analysis

Sample ID: A3J0709-01

Sampled By: Client

Sample Description: Water Samples

Sample Date - Time: 10/05/13 - 00:00

Matrix: Water

Sample Type: Grab

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Magnesium	EPA 200.7	780	1.0	mg/L	10	A311945	10/09/13	10/16/13	
Magnesium - Dissolved (1)	EPA 200.7	810	0.10	mg/L	1	A312073	10/11/13	10/15/13	
Manganese	EPA 200.7	5.3	0.10	mg/L	10	A311945	10/09/13	10/16/13	
Manganese - Dissolved (1)	EPA 200.7	5.2	0.010	mg/L	1	A312073	10/11/13	10/15/13	
Potassium - Dissolved (1)	EPA 200.7	92	2.0	mg/L	1	A312073	10/11/13	10/15/13	
Silica (SiO ₂) - Dissolved (1)	EPA 200.7	26	0.20	mg/L	1	A312073	10/11/13	10/15/13	
Sodium - Dissolved (1)	EPA 200.7	6000	20	mg/L	20	A312073	10/11/13	10/16/13	
Strontium - Dissolved (1)	EPA 200.8	7100	10	ug/L	10	A312073	10/11/13	10/17/13	
Zinc	EPA 200.7	ND	0.50	mg/L	10	A311945	10/09/13	10/16/13	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A311954	10/09/13	10/14/13	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A311954	10/09/13	10/14/13	
Surrogate: TCMX	EPA 504.1	165 %	<i>Acceptable range: 70-130 %</i>			<i>Qualifiers - SR1.0</i>			
<u>Organohalide Pesticides and PCBs by GC-ECD</u>									
Aldrin	EPA 505	ND	0.075	ug/L	1	A311954	10/09/13	10/14/13	
Chlordane	EPA 505	ND	0.10	ug/L	1	A311954	10/09/13	10/14/13	
Chlorothalonil	EPA 505	ND	5.0	ug/L	1	A311954	10/09/13	10/14/13	
Dieldrin	EPA 505	ND	0.020	ug/L	1	A311954	10/09/13	10/14/13	
Endrin	EPA 505	ND	0.10	ug/L	1	A311954	10/09/13	10/14/13	
Heptachlor	EPA 505	ND	0.010	ug/L	1	A311954	10/09/13	10/14/13	
Heptachlor Epoxide	EPA 505	ND	0.010	ug/L	1	A311954	10/09/13	10/14/13	
Hexachlorobenzene	EPA 505	ND	0.50	ug/L	1	A311954	10/09/13	10/14/13	
Hexachlorocyclopentadiene	EPA 505	ND	1.0	ug/L	1	A311954	10/09/13	10/14/13	
Lindane	EPA 505	ND	0.20	ug/L	1	A311954	10/09/13	10/14/13	
Methoxychlor	EPA 505	ND	10	ug/L	1	A311954	10/09/13	10/14/13	
PCB Aroclor Screen	EPA 505	ND	0.50	ug/L	1	A311954	10/09/13	10/14/13	
Toxaphene	EPA 505	ND	1.0	ug/L	1	A311954	10/09/13	10/14/13	
Trifluralin	EPA 505	ND	1.0	ug/L	1	A311954	10/09/13	10/14/13	
Surrogate: TCMX	EPA 505	165 %	<i>Acceptable range: 70-130 %</i>			<i>Qualifiers - SR1.0</i>			
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A311994	10/09/13	10/11/13	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A311994	10/09/13	10/11/13	
2,4-D	EPA 515.3	ND	10	ug/L	1	A311994	10/09/13	10/11/13	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A311994	10/09/13	10/11/13	
Dalapon	EPA 515.3	ND	10	ug/L	1	A311994	10/09/13	10/11/13	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A311994	10/09/13	10/11/13	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A311994	10/09/13	10/11/13	

Certificate of Analysis

Sample ID: A3J0709-01

Sampled By: Client

Sample Description: Water Samples

Sample Date - Time: 10/05/13 - 00:00

Matrix: Water

Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chlorinated Acid Herbicides by GC-ECD									
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A311994	10/09/13	10/11/13	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A311994	10/09/13	10/11/13	
Surrogate: DCPAA	EPA 515.3	79 %	Acceptable range: 70-130 %						
Volatile Organics by GC-MS									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A312121	10/14/13	10/14/13	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A312121	10/14/13	10/14/13	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A312121	10/14/13	10/14/13	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A312121	10/14/13	10/14/13	
Acetone	EPA 524.2	ND	10	ug/L	1	A312121	10/14/13	10/14/13	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	BS1.0
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	

Certificate of Analysis

Sample ID: A3J0709-01
Sampled By: Client
Sample Description: Water Samples

Sample Date - Time: 10/05/13 - 00:00
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A312121	10/14/13	10/14/13	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A312121	10/14/13	10/14/13	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A312121	10/14/13	10/14/13	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A312121	10/14/13	10/14/13	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	95 %							Acceptable range: 70-130 %
Surrogate: Bromofluorobenzene	EPA 524.2	99 %							Acceptable range: 70-130 %
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A312014	10/10/13	10/12/13	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A312014	10/10/13	10/12/13	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A312014	10/10/13	10/12/13	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A312014	10/10/13	10/12/13	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A312014	10/10/13	10/12/13	
Bromacil	EPA 525.2	ND	10	ug/L	1	A312014	10/10/13	10/12/13	

Certificate of Analysis

Sample ID: A3J0709-01
Sampled By: Client
Sample Description: Water Samples

Sample Date - Time: 10/05/13 - 00:00
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Semi-Volatile Organics by GC-MS</u>									
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A312014	10/10/13	10/12/13	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A312014	10/10/13	10/12/13	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A312014	10/10/13	10/12/13	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A312014	10/10/13	10/12/13	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A312014	10/10/13	10/12/13	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A312014	10/10/13	10/12/13	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A312014	10/10/13	10/12/13	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A312014	10/10/13	10/12/13	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A312014	10/10/13	10/12/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	113 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A312119	10/12/13	10/12/13	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A312119	10/12/13	10/12/13	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A312119	10/12/13	10/12/13	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A312119	10/12/13	10/12/13	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A312119	10/12/13	10/12/13	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A312119	10/12/13	10/12/13	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A312119	10/12/13	10/12/13	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A312119	10/12/13	10/12/13	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A312197	10/15/13	10/15/13	
Surrogate: AMPA	EPA 547	113 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A312182	10/14/13	10/15/13	HT1.0
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	10	ug/L	2.5	A312161	10/14/13	10/16/13	HT1.0

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A311905

Prepared: 10/8/2013

Prep Method: Method Specific Preparation

Analyst: AJT

Blank (A311905-BLK1)

Chloride	ND	1.0	mg/L							10/08/13	
Nitrate as NO3	ND	1.0	mg/L							10/08/13	
Nitrite as N	ND	0.050	mg/L							10/08/13	
Sulfate as SO4	ND	2.0	mg/L							10/08/13	

Blank Spike (A311905-BS1)

Chloride	49	1.0	mg/L	50		99	90-110			10/08/13	
Nitrate as NO3	50	1.0	mg/L	50		99	90-110			10/08/13	
Nitrite as N	0.53	0.050	mg/L	0.50		106	90-110			10/08/13	
Sulfate as SO4	50	2.0	mg/L	50		99	90-110			10/08/13	

Blank Spike Dup (A311905-BSD1)

Chloride	49	1.0	mg/L	50		99	90-110	0	20	10/08/13	
Nitrate as NO3	49	1.0	mg/L	50		99	90-110	0	20	10/08/13	
Nitrite as N	0.53	0.050	mg/L	0.50		106	90-110	0	20	10/08/13	
Sulfate as SO4	49	2.0	mg/L	50		99	90-110	1	20	10/08/13	

Matrix Spike (A311905-MS1), Source: A3J0708-03

Chloride	110	2.0	mg/L	100	6.1	101	80-120			10/08/13	
Nitrate as NO3	120	2.0	mg/L	100	13	102	80-120			10/08/13	
Nitrite as N	1.0	0.10	mg/L	1.0	ND	103	80-120			10/08/13	
Sulfate as SO4	110	4.0	mg/L	100	8.5	101	80-120			10/08/13	

Matrix Spike Dup (A311905-MSD1), Source: A3J0708-03

Chloride	110	2.0	mg/L	100	6.1	99	80-120	1	20	10/08/13	
Nitrate as NO3	110	2.0	mg/L	100	13	100	80-120	1	20	10/08/13	
Nitrite as N	1.0	0.10	mg/L	1.0	ND	102	80-120	1	20	10/08/13	
Sulfate as SO4	110	4.0	mg/L	100	8.5	100	80-120	1	20	10/08/13	

EPA 300.1 - Quality Control

Batch: A312042

Prepared: 10/10/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A312042-BLK1)

Bromide	ND	0.0050	mg/L							10/10/13	
Surrogate: Dichloroacetate	0.497			0.50		99	90-115			10/10/13	

Blank Spike (A312042-BS1)

Bromide	0.20	0.0050	mg/L	0.20		102	85-115			10/10/13	
Surrogate: Dichloroacetate	0.520			0.50		104	90-115			10/10/13	

Blank Spike Dup (A312042-BSD1)

Bromide	0.20	0.0050	mg/L	0.20		99	85-115	3	10	10/10/13	
Surrogate: Dichloroacetate	0.516			0.50		103	90-115			10/10/13	

Matrix Spike (A312042-MS1), Source: A3J1010-04

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.1 - Quality Control

Batch: A312042

Prepared: 10/10/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Matrix Spike (A312042-MS1), Source: A3J1010-04

Bromide	1.4	0.050	mg/L	1.0	0.41	97	75-125			10/10/13	
Surrogate: Dichloroacetate	5.22			5.0		104	90-115			10/10/13	

Matrix Spike (A312042-MS2), Source: A3J0947-01

Bromide	0.35	0.010	mg/L	0.20	0.17	92	75-125			10/11/13	
Surrogate: Dichloroacetate	1.06			1.0		106	90-115			10/11/13	

Matrix Spike Dup (A312042-MSD1), Source: A3J1010-04

Bromide	1.4	0.050	mg/L	1.0	0.41	97	75-125	0	10	10/10/13	
Surrogate: Dichloroacetate	5.81			5.0		116	90-115			10/10/13	SR3.0

Matrix Spike Dup (A312042-MSD2), Source: A3J0947-01

Bromide	0.36	0.010	mg/L	0.20	0.17	96	75-125	2	10	10/11/13	
Surrogate: Dichloroacetate	1.09			1.0		109	90-115			10/11/13	

EPA 351.2 - Quality Control

Batch: A312089

Prepared: 10/11/2013

Prep Method: Digestion

Analyst: LJL

Blank (A312089-BLK1)

Total Kjeldahl Nitrogen - Dissolved (1)	ND	1.0	mg/L							10/16/13	
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Blank Spike (A312089-BS1)

Total Kjeldahl Nitrogen - Dissolved (1)	10	1.0	mg/L	10		103	90-110			10/16/13	
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Blank Spike Dup (A312089-BSD1)

Total Kjeldahl Nitrogen - Dissolved (1)	11	1.0	mg/L	10		106	90-110	2	10	10/16/13	
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Matrix Spike (A312089-MS1), Source: A3J0687-08

Total Kjeldahl Nitrogen - Dissolved (1)	11	1.0	mg/L	10	ND	111	90-110			10/16/13	MS1.0 High
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Matrix Spike (A312089-MS2), Source: A3J0782-04

Total Kjeldahl Nitrogen - Dissolved (1)	14	1.0	mg/L	10	ND	138	90-110			10/16/13	MS1.0 High
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Matrix Spike Dup (A312089-MSD1), Source: A3J0687-08

Total Kjeldahl Nitrogen - Dissolved (1)	9.5	1.0	mg/L	10	ND	95	90-110	15	10	10/16/13	MS1.0
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Matrix Spike Dup (A312089-MSD2), Source: A3J0782-04

Total Kjeldahl Nitrogen - Dissolved (1)	13	1.0	mg/L	10	ND	130	90-110	6	10	10/16/13	MS1.0 High
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EPA 365.4 - Quality Control

Batch: A312089

Prepared: 10/11/2013

Prep Method: Digestion

Analyst: LJL

Blank (A312089-BLK1)

Phosphorus - Dissolved (1)	ND	0.10	mg/L							10/16/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 365.4 - Quality Control

Batch: A312089

Prepared: 10/11/2013

Prep Method: Digestion

Analyst: LJL

Blank Spike (A312089-BS1)

Phosphorus - Dissolved (1) 9.4 0.10 mg/L 10 94 90-110 10/16/13

Blank Spike Dup (A312089-BSD1)

Phosphorus - Dissolved (1) 9.1 0.10 mg/L 10 91 90-110 3 10 10/16/13

Matrix Spike (A312089-MS1), Source: A3J0687-08

Phosphorus - Dissolved (1) 9.3 0.10 mg/L 10 0.16 92 90-110 10/16/13

Matrix Spike (A312089-MS2), Source: A3J0782-04

Phosphorus - Dissolved (1) 10 0.10 mg/L 10 0.11 100 90-110 10/16/13

Matrix Spike Dup (A312089-MSD1), Source: A3J0687-08

Phosphorus - Dissolved (1) 9.4 0.10 mg/L 10 0.16 92 90-110 1 10 10/16/13

Matrix Spike Dup (A312089-MSD2), Source: A3J0782-04

Phosphorus - Dissolved (1) 9.7 0.10 mg/L 10 0.11 96 90-110 4 10 10/16/13

SM 2120 B - Quality Control

Batch: A311846

Prepared: 10/8/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311846-BLK1)

Color, Apparent ND 1.0 CU 10/08/13

Duplicate (A311846-DUP1), Source: A3J0642-02

Color, Apparent ND 1.0 CU ND 20 10/08/13

Duplicate (A311846-DUP2), Source: A3J0665-01

Color, Apparent 15 1.0 CU 15 0 20 10/08/13

SM 2130 B - Quality Control

Batch: A311846

Prepared: 10/8/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311846-BLK1)

Turbidity ND 0.10 NTU 10/08/13

Duplicate (A311846-DUP1), Source: A3J0642-02

Turbidity ND 0.10 NTU ND 20 10/08/13

Duplicate (A311846-DUP2), Source: A3J0665-01

Turbidity 5.4 0.10 NTU 5.3 3 20 10/08/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2150 B - Quality Control

Batch: A311846

Prepared: 10/8/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311846-BLK1)

Threshold Odor	ND	1.0	T.O.N.							10/08/13	
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Duplicate (A311846-DUP1), Source: A3J0642-02

Threshold Odor	1.0	1.0	T.O.N.		1.0			0	20	10/08/13	
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Duplicate (A311846-DUP2), Source: A3J0665-01

Threshold Odor	1.0	1.0	T.O.N.		1.0			0	20	10/08/13	
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SM 2320 B - Quality Control

Batch: A311859

Prepared: 10/8/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A311859-BLK1)

Alkalinity as CaCO3	ND	3.0	mg/L							10/08/13	
Bicarbonate as CaCO3	ND	3.0	mg/L							10/08/13	
Carbonate as CaCO3	ND	3.0	mg/L							10/08/13	
Hydroxide as CaCO3	ND	3.0	mg/L							10/08/13	

Blank Spike (A311859-BS1)

Alkalinity as CaCO3	100	3.0	mg/L	100		104	80-120			10/08/13	
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Blank Spike Dup (A311859-BSD1)

Alkalinity as CaCO3	100	3.0	mg/L	100		104	80-120	0	20	10/08/13	
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Duplicate (A311859-DUP1), Source: A3J0665-01

Alkalinity as CaCO3	42	3.0	mg/L		42			1	10	10/08/13	
Bicarbonate as CaCO3	42	3.0	mg/L		42			1	10	10/08/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	10/08/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	10/08/13	

Duplicate (A311859-DUP2), Source: A3J0701-01

Alkalinity as CaCO3	99	3.0	mg/L		98			1	10	10/08/13	
Bicarbonate as CaCO3	99	3.0	mg/L		98			1	10	10/08/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	10/08/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	10/08/13	

SM 2510 B - Quality Control

Batch: A311859

Prepared: 10/8/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A311859-BLK1)

Conductivity @ 25C	ND	1.0	umhos/cm							10/08/13	
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Duplicate (A311859-DUP1), Source: A3J0665-01

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2510 B - Quality Control

Batch: A311859

Prepared: 10/8/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Duplicate (A311859-DUP1), Source: A3J0665-01

Conductivity @ 25C	300	1.0	umhos/cm		300			0	20	10/08/13	
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Duplicate (A311859-DUP2), Source: A3J0701-01

Conductivity @ 25C	510	1.0	umhos/cm		510			0	20	10/08/13	
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SM 2540C - Quality Control

Batch: A312067

Prepared: 10/11/2013

Prep Method: Method Specific Preparation

Analyst: DEH

Blank (A312067-BLK1)

Total Dissolved Solids	ND	5.0	mg/L							10/16/13	
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Blank Spike (A312067-BS1)

Total Dissolved Solids	1000	5.0	mg/L	1000		100	70-130			10/16/13	
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SM 4500-F C - Quality Control

Batch: A312667

Prepared: 10/23/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A312667-BLK1)

Fluoride	ND	0.10	mg/L							10/23/13	
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Blank Spike (A312667-BS1)

Fluoride	1.0	0.10	mg/L	1.0		100	90-110			10/23/13	
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Blank Spike Dup (A312667-BSD1)

Fluoride	1.0	0.10	mg/L	1.0		101	90-110	1	20	10/23/13	
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Matrix Spike (A312667-MS1), Source: A3J1329-01

Fluoride	1.1	0.10	mg/L	1.0	ND	100	80-120			10/23/13	
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Matrix Spike Dup (A312667-MSD1), Source: A3J1329-01

Fluoride	1.1	0.10	mg/L	1.0	ND	100	80-120	0	20	10/23/13	
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SM 4500-H+ B - Quality Control

Batch: A311859

Prepared: 10/8/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Duplicate (A311859-DUP1), Source: A3J0665-01

pH (1)	7.3		pH Units		7.2			1	20	10/08/13	
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Duplicate (A311859-DUP2), Source: A3J0701-01

pH (1)	7.9		pH Units		7.8			0	20	10/08/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-NH3 G - Quality Control

Batch: A312186

Prepared: 10/15/2013

Prep Method: Ammonia Distillation

Analyst: LJL

Blank (A312186-BLK1)

Ammonia as N ND 0.10 mg/L 10/16/13

Blank Spike (A312186-BS1)

Ammonia as N 10 0.10 mg/L 10 101 80-120 10/16/13

Blank Spike Dup (A312186-BSD1)

Ammonia as N 9.9 0.10 mg/L 10 99 80-120 2 20 10/16/13

Matrix Spike (A312186-MS1), Source: A3J0709-01

Ammonia as N 23 0.50 mg/L 10 15 82 80-120 10/16/13

Matrix Spike Dup (A312186-MSD1), Source: A3J0709-01

Ammonia as N 21 0.50 mg/L 10 15 61 80-120 9 20 10/16/13 MS1.0 **Low**

SM 4500-NO3 F - Quality Control

Batch: A312125

Prepared: 10/14/2013

Prep Method: Method Specific Preparation

Analyst: LJL

Blank (A312125-BLK2)

Total Oxidizable Nitrogen, as N - Dissolved (1) ND 0.10 mg/L 10/14/13

Blank Spike (A312125-BS1)

Total Oxidizable Nitrogen, as N - Dissolved (1) 9.8 0.10 mg/L 10 98 80-120 10/14/13

Blank Spike Dup (A312125-BSD1)

Total Oxidizable Nitrogen, as N - Dissolved (1) 10 0.10 mg/L 10 101 80-120 2 20 10/14/13

Matrix Spike (A312125-MS2), Source: A3J0790-01

Total Oxidizable Nitrogen, as N - Dissolved (1) 8.8 0.10 mg/L 10 ND 88 80-120 10/14/13

Matrix Spike Dup (A312125-MSD2), Source: A3J0790-01

Total Oxidizable Nitrogen, as N - Dissolved (1) 9.1 0.10 mg/L 10 ND 91 80-120 3 20 10/14/13

SM 4500-P E - Quality Control

Batch: A311969

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: LJL

Blank (A311969-BLK1)

Orthophosphate as P ND 0.010 mg/L 10/09/13

Blank Spike (A311969-BS1)

Orthophosphate as P 0.25 0.010 mg/L 0.25 100 90-110 10/09/13

Blank Spike Dup (A311969-BSD1)

Orthophosphate as P 0.25 0.010 mg/L 0.25 102 90-110 1 20 10/09/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-P E - Quality Control

Batch: A311969

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: LJL

Matrix Spike (A311969-MS1), Source: A3J0790-01

Orthophosphate as P 1.4 0.050 mg/L 1.2 0.16 98 80-120 10/09/13

Matrix Spike Dup (A311969-MSD1), Source: A3J0790-01

Orthophosphate as P 1.4 0.050 mg/L 1.2 0.16 99 80-120 1 20 10/09/13

SM 5540 C - Quality Control

Batch: A311939

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311939-BLK1)

MBAS, Calculated as LAS, mol wt 340 ND 0.050 mg/L 10/09/13

Blank Spike (A311939-BS1)

MBAS, Calculated as LAS, mol wt 340 0.94 0.050 mg/L 1.0 94 80-120 10/09/13

Blank Spike Dup (A311939-BSD1)

MBAS, Calculated as LAS, mol wt 340 0.95 0.050 mg/L 1.0 95 80-120 2 20 10/09/13

Matrix Spike (A311939-MS1), Source: A3J0748-01

MBAS, Calculated as LAS, mol wt 340 0.80 0.050 mg/L 1.0 ND 79 80-120 10/09/13 MS1.0 **Low**

Matrix Spike (A311939-MS2), Source: A3J0790-01

MBAS, Calculated as LAS, mol wt 340 0.99 0.050 mg/L 1.0 ND 98 80-120 10/09/13

Matrix Spike Dup (A311939-MSD1), Source: A3J0748-01

MBAS, Calculated as LAS, mol wt 340 0.83 0.050 mg/L 1.0 ND 82 80-120 4 20 10/09/13

Matrix Spike Dup (A311939-MSD2), Source: A3J0790-01

MBAS, Calculated as LAS, mol wt 340 0.99 0.050 mg/L 1.0 ND 98 80-120 0 20 10/09/13

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A311945

Prepared: 10/9/2013

Prep Method: EPA 200.2

Analyst: NRE

Blank (A311945-BLK2)

Aluminum	ND	0.050	mg/L							10/16/13	
Calcium	ND	0.10	mg/L							10/16/13	
Iron	ND	0.030	mg/L							10/16/13	
Magnesium	ND	0.10	mg/L							10/16/13	
Manganese	ND	0.010	mg/L							10/16/13	
Zinc	ND	0.050	mg/L							10/16/13	

Blank Spike (A311945-BS2)

Aluminum	0.19	0.050	mg/L	0.20		95	85-115			10/16/13	
Calcium	9.8	0.10	mg/L	10		98	85-115			10/16/13	
Iron	1.9	0.030	mg/L	2.0		95	85-115			10/16/13	
Magnesium	9.7	0.10	mg/L	10		97	85-115			10/16/13	
Manganese	0.20	0.010	mg/L	0.20		98	85-115			10/16/13	
Zinc	0.20	0.050	mg/L	0.20		99	85-115			10/16/13	

Blank Spike Dup (A311945-BSD2)

Aluminum	0.20	0.050	mg/L	0.20		100	85-115	5	20	10/16/13	
Calcium	9.8	0.10	mg/L	10		98	85-115	0	20	10/16/13	
Iron	1.9	0.030	mg/L	2.0		95	85-115	0	20	10/16/13	
Magnesium	9.5	0.10	mg/L	10		95	85-115	1	20	10/16/13	
Manganese	0.19	0.010	mg/L	0.20		97	85-115	1	20	10/16/13	
Zinc	0.20	0.050	mg/L	0.20		100	85-115	1	20	10/16/13	

Matrix Spike (A311945-MS3), Source: A3J0748-01

Aluminum	0.20	0.050	mg/L	0.20	ND	99	70-130			10/16/13	
Calcium	50	0.10	mg/L	10	41	98	70-130			10/16/13	
Iron	1.9	0.030	mg/L	2.0	ND	95	70-130			10/16/13	
Magnesium	24	0.10	mg/L	10	15	93	70-130			10/16/13	
Manganese	0.19	0.010	mg/L	0.20	ND	97	70-130			10/16/13	
Zinc	0.26	0.050	mg/L	0.20	0.064	97	70-130			10/16/13	

Matrix Spike Dup (A311945-MSD3), Source: A3J0748-01

Aluminum	0.21	0.050	mg/L	0.20	ND	104	70-130	6	20	10/16/13	
Calcium	50	0.10	mg/L	10	41	99	70-130	0	20	10/16/13	
Iron	2.0	0.030	mg/L	2.0	ND	97	70-130	1	20	10/16/13	
Magnesium	24	0.10	mg/L	10	15	95	70-130	1	20	10/16/13	
Manganese	0.20	0.010	mg/L	0.20	ND	98	70-130	1	20	10/16/13	
Zinc	0.26	0.050	mg/L	0.20	0.064	98	70-130	1	20	10/16/13	

EPA 200.7 - Quality Control

Batch: A312073

Prepared: 10/11/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A312073-BLK2)

Barium - Dissolved (1)	ND	0.050	mg/L							10/15/13	
Boron - Dissolved (1)	ND	0.10	mg/L							10/15/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: **A312073**

Prepared: 10/11/2013

Prep Method: **Filtration - Metals**

Analyst: **NRE**

Blank (A312073-BLK2)

Calcium - Dissolved (1)	ND	0.10	mg/L							10/15/13	
Iron - Dissolved (1)	ND	0.030	mg/L							10/15/13	
Magnesium - Dissolved (1)	ND	0.10	mg/L							10/15/13	
Manganese - Dissolved (1)	ND	0.010	mg/L							10/15/13	
Potassium - Dissolved (1)	ND	2.0	mg/L							10/15/13	
Silica (SiO2) - Dissolved (1)	ND	0.20	mg/L							10/15/13	
Sodium - Dissolved (1)	ND	1.0	mg/L							10/15/13	

Blank Spike (A312073-BS2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		100	85-115			10/15/13	
Boron - Dissolved (1)	0.58	0.10	mg/L	0.60		97	85-115			10/15/13	
Calcium - Dissolved (1)	9.9	0.10	mg/L	10		99	85-115			10/15/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		99	85-115			10/15/13	
Magnesium - Dissolved (1)	9.6	0.10	mg/L	10		96	85-115			10/15/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20		97	85-115			10/15/13	
Potassium - Dissolved (1)	9.9	2.0	mg/L	10		99	85-115			10/15/13	
Silica (SiO2) - Dissolved (1)	2.1	0.20	mg/L	2.1		99	85-115			10/15/13	
Sodium - Dissolved (1)	10	1.0	mg/L	10		101	85-115			10/15/13	

Blank Spike Dup (A312073-BSD2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		100	85-115	0	20	10/15/13	
Boron - Dissolved (1)	0.59	0.10	mg/L	0.60		99	85-115	2	20	10/15/13	
Calcium - Dissolved (1)	9.9	0.10	mg/L	10		99	85-115	0	20	10/15/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		101	85-115	1	20	10/15/13	
Magnesium - Dissolved (1)	9.8	0.10	mg/L	10		98	85-115	1	20	10/15/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20		98	85-115	1	20	10/15/13	
Potassium - Dissolved (1)	9.9	2.0	mg/L	10		99	85-115	0	20	10/15/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		101	85-115	1	20	10/15/13	
Sodium - Dissolved (1)	10	1.0	mg/L	10		101	85-115	0	20	10/15/13	

Matrix Spike (A312073-MS3), Source: A3J0568-02

Barium - Dissolved (1)	0.21	0.050	mg/L	0.20	ND	107	70-130			10/15/13	
Boron - Dissolved (1)	3.9	0.10	mg/L	0.60	3.3	104	70-130			10/15/13	
Calcium - Dissolved (1)	560	0.10	mg/L	10	550	150	70-130			10/15/13	MS1.0 High
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0	ND	99	70-130			10/15/13	
Magnesium - Dissolved (1)	160	0.10	mg/L	10	150	110	70-130			10/15/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20	ND	96	70-130			10/15/13	
Potassium - Dissolved (1)	14	2.0	mg/L	10	3.7	105	70-130			10/15/13	
Silica (SiO2) - Dissolved (1)	44	0.20	mg/L	2.1	41	118	70-130			10/15/13	
Sodium - Dissolved (1)	600	1.0	mg/L	10	600	86	70-130			10/15/13	

Matrix Spike (A312073-MS4), Source: A3J0774-02

Barium - Dissolved (1)	0.29	0.050	mg/L	0.20	0.096	96	70-130			10/15/13	
Boron - Dissolved (1)	0.66	0.10	mg/L	0.60	ND	99	70-130			10/15/13	
Calcium - Dissolved (1)	99	0.10	mg/L	10	91	80	70-130			10/15/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0	ND	100	70-130			10/15/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A312073

Prepared: 10/11/2013

Prep Method: Filtration - Metals

Analyst: NRE

Matrix Spike (A312073-MS4), Source: A3J0774-02

Magnesium - Dissolved (1)	56	0.10	mg/L	10	47	84	70-130			10/15/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20	ND	97	70-130			10/15/13	
Potassium - Dissolved (1)	10	2.0	mg/L	10	ND	104	70-130			10/15/13	
Silica (SiO2) - Dissolved (1)	65	0.20	mg/L	2.1	64	48	70-130			10/15/13	MS1.0 Low
Sodium - Dissolved (1)	150	1.0	mg/L	10	140	78	70-130			10/15/13	

Matrix Spike Dup (A312073-MSD3), Source: A3J0568-02

Barium - Dissolved (1)	0.21	0.050	mg/L	0.20	ND	105	70-130	1	20	10/15/13	
Boron - Dissolved (1)	3.9	0.10	mg/L	0.60	3.3	107	70-130	1	20	10/15/13	
Calcium - Dissolved (1)	560	0.10	mg/L	10	550	107	70-130	1	20	10/15/13	
Iron - Dissolved (1)	1.9	0.030	mg/L	2.0	ND	97	70-130	1	20	10/15/13	
Magnesium - Dissolved (1)	160	0.10	mg/L	10	150	102	70-130	1	20	10/15/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20	ND	95	70-130	1	20	10/15/13	
Potassium - Dissolved (1)	14	2.0	mg/L	10	3.7	105	70-130	0	20	10/15/13	
Silica (SiO2) - Dissolved (1)	43	0.20	mg/L	2.1	41	103	70-130	1	20	10/15/13	
Sodium - Dissolved (1)	600	1.0	mg/L	10	600	53	70-130	1	20	10/15/13	MS1.0 Low

Matrix Spike Dup (A312073-MSD4), Source: A3J0774-02

Barium - Dissolved (1)	0.30	0.050	mg/L	0.20	0.096	103	70-130	5	20	10/15/13	
Boron - Dissolved (1)	0.67	0.10	mg/L	0.60	ND	100	70-130	1	20	10/15/13	
Calcium - Dissolved (1)	100	0.10	mg/L	10	91	134	70-130	5	20	10/15/13	MS1.0 High
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0	ND	100	70-130	1	20	10/15/13	
Magnesium - Dissolved (1)	59	0.10	mg/L	10	47	117	70-130	6	20	10/15/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20	ND	97	70-130	0	20	10/15/13	
Potassium - Dissolved (1)	11	2.0	mg/L	10	ND	108	70-130	4	20	10/15/13	
Silica (SiO2) - Dissolved (1)	69	0.20	mg/L	2.1	64	226	70-130	6	20	10/15/13	MS1.0 High
Sodium - Dissolved (1)	160	1.0	mg/L	10	140	142	70-130	4	20	10/15/13	MS1.0 High

EPA 200.8 - Quality Control

Batch: A311945

Prepared: 10/9/2013

Prep Method: EPA 200.2

Analyst: MAS

Blank (A311945-BLK1)

Arsenic	ND	2.0	ug/L							10/14/13	
Copper	ND	5.0	ug/L							10/14/13	

Blank Spike (A311945-BS1)

Arsenic	190	2.0	ug/L	200		97	85-115			10/14/13	
Copper	190	5.0	ug/L	200		97	85-115			10/14/13	

Blank Spike Dup (A311945-BSD1)

Arsenic	190	2.0	ug/L	200		96	85-115	1	20	10/14/13	
Copper	190	5.0	ug/L	200		97	85-115	1	20	10/14/13	

Matrix Spike (A311945-MS1), Source: A3J0748-01

Arsenic	200	2.0	ug/L	200	2.7	96	70-130			10/14/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.8 - Quality Control

Batch: A311945

Prepared: 10/9/2013

Prep Method: EPA 200.2

Analyst: MAS

Matrix Spike (A311945-MS1), Source: A3J0748-01

Copper	230	5.0	ug/L	200	44	93	70-130			10/14/13	
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Matrix Spike (A311945-MS2), Source: A3J0770-04

Arsenic	200	2.0	ug/L	200	7.6	96	70-130			10/15/13	
Copper	180	5.0	ug/L	200	ND	90	70-130			10/15/13	

Matrix Spike Dup (A311945-MSD1), Source: A3J0748-01

Arsenic	200	2.0	ug/L	200	2.7	97	70-130	1	20	10/14/13	
Copper	230	5.0	ug/L	200	44	91	70-130	2	20	10/14/13	

Matrix Spike Dup (A311945-MSD2), Source: A3J0770-04

Arsenic	200	2.0	ug/L	200	7.6	97	70-130	1	20	10/15/13	
Copper	180	5.0	ug/L	200	ND	91	70-130	1	20	10/15/13	

EPA 200.8 - Quality Control

Batch: A312073

Prepared: 10/11/2013

Prep Method: Filtration - Metals

Analyst: MAS

Blank (A312073-BLK4)

Strontium - Dissolved (1)	ND	1.0	ug/L							10/17/13	
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Blank Spike (A312073-BS4)

Strontium - Dissolved (1)	200	1.0	ug/L	200		101	85-115			10/17/13	
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Blank Spike Dup (A312073-BSD4)

Strontium - Dissolved (1)	200	1.0	ug/L	200		102	85-115	1	20	10/17/13	
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Matrix Spike (A312073-MS6), Source: A3J0568-02

Strontium - Dissolved (1)	10000	1.0	ug/L	200	10000	128	70-130			10/17/13	
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Matrix Spike Dup (A312073-MSD6), Source: A3J0568-02

Strontium - Dissolved (1)	11000	1.0	ug/L	200	10000	161	70-130	1	20	10/17/13	MS1.0 High
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A311954

Prepared: 10/9/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A311954-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							10/13/13	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							10/13/13	
Surrogate: TCMX	1.2			1.5		76	70-130			10/13/13	

Blank Spike (A311954-BS1)

Dibromochloropropane (DBCP)	0.20	0.010	ug/L	0.20		98	70-130			10/13/13	
Ethylene Dibromide (EDB)	0.20	0.020	ug/L	0.20		99	70-130			10/13/13	
Surrogate: TCMX	1.4			1.5		93	70-130			10/13/13	

Blank Spike Dup (A311954-BSD1)

Dibromochloropropane (DBCP)	0.20	0.010	ug/L	0.20		99	70-130	0	20	10/14/13	
Ethylene Dibromide (EDB)	0.19	0.020	ug/L	0.20		94	70-130	4	20	10/14/13	
Surrogate: TCMX	1.5			1.5		98	70-130			10/14/13	

Matrix Spike (A311954-MS1), Source: A3J0722-01

Dibromochloropropane (DBCP)	0.20	0.010	ug/L	0.20	ND	100	65-135			10/14/13	
Ethylene Dibromide (EDB)	0.19	0.020	ug/L	0.20	ND	93	65-135			10/14/13	
Surrogate: TCMX	1.5			1.5		97	70-130			10/14/13	

Matrix Spike Dup (A311954-MSD1), Source: A3J0722-01

Dibromochloropropane (DBCP)	0.20	0.010	ug/L	0.20	ND	101	65-135	2	20	10/14/13	
Ethylene Dibromide (EDB)	0.20	0.020	ug/L	0.20	ND	97	65-135	5	20	10/14/13	
Surrogate: TCMX	1.5			1.5		99	70-130			10/14/13	

EPA 505 - Quality Control

Batch: A311954

Prepared: 10/9/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A311954-BLK1)

Aldrin	ND	0.075	ug/L							10/13/13	
Chlordane	ND	0.10	ug/L							10/13/13	
Chlorothalonil	ND	5.0	ug/L							10/13/13	
Dieldrin	ND	0.020	ug/L							10/13/13	
Endrin	ND	0.10	ug/L							10/13/13	
Heptachlor	ND	0.010	ug/L							10/13/13	
Heptachlor Epoxide	ND	0.010	ug/L							10/13/13	
Hexachlorobenzene	ND	0.50	ug/L							10/13/13	
Hexachlorocyclopentadiene	ND	1.0	ug/L							10/13/13	
Lindane	ND	0.20	ug/L							10/13/13	
Methoxychlor	ND	10	ug/L							10/13/13	
PCB Aroclor Screen	ND	0.50	ug/L							10/13/13	
Toxaphene	ND	1.0	ug/L							10/13/13	
Trifluralin	ND	1.0	ug/L							10/13/13	
Surrogate: TCMX	1.2			1.5		76	70-130			10/13/13	

Blank Spike (A311954-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A311954

Prepared: 10/9/2013

Prep Method: EPA 505

Analyst: GAK

Blank Spike (A311954-BS1)

Aldrin	1.0	0.075	ug/L	1.0		101	70-130			10/13/13	
Chlorothalonil	10	5.0	ug/L	10		103	70-130			10/13/13	
Dieldrin	0.40	0.020	ug/L	0.40		101	70-130			10/13/13	
Endrin	0.20	0.10	ug/L	0.20		102	70-130			10/13/13	
Heptachlor	0.21	0.010	ug/L	0.20		106	70-130			10/13/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20		98	70-130			10/13/13	
Hexachlorobenzene	2.0	0.50	ug/L	2.0		100	70-130			10/13/13	
Hexachlorocyclopentadiene	2.2	1.0	ug/L	2.0		110	70-130			10/13/13	
Lindane	0.39	0.20	ug/L	0.40		97	70-130			10/13/13	
Methoxychlor	2.0	10	ug/L	2.0		99	70-130			10/13/13	
Trifluralin	2.0	1.0	ug/L	2.0		99	70-130			10/13/13	
Surrogate: TCMX	1.4			1.5		93	70-130			10/13/13	

Blank Spike Dup (A311954-BSD1)

Aldrin	1.0	0.075	ug/L	1.0		100	70-130	1	20	10/14/13	
Chlorothalonil	11	5.0	ug/L	10		106	70-130	3	20	10/14/13	
Dieldrin	0.41	0.020	ug/L	0.40		102	70-130	1	20	10/14/13	
Endrin	0.20	0.10	ug/L	0.20		100	70-130	3	20	10/14/13	
Heptachlor	0.21	0.010	ug/L	0.20		103	70-130	3	20	10/14/13	
Heptachlor Epoxide	0.19	0.010	ug/L	0.20		97	70-130	1	20	10/14/13	
Hexachlorobenzene	1.9	0.50	ug/L	2.0		97	70-130	3	20	10/14/13	
Hexachlorocyclopentadiene	1.9	1.0	ug/L	2.0		96	70-130	14	20	10/14/13	
Lindane	0.40	0.20	ug/L	0.40		101	70-130	4	20	10/14/13	
Methoxychlor	2.0	10	ug/L	2.0		100	70-130	1	20	10/14/13	
Trifluralin	2.0	1.0	ug/L	2.0		100	70-130	1	20	10/14/13	
Surrogate: TCMX	1.5			1.5		98	70-130			10/14/13	

Matrix Spike (A311954-MS1), Source: A3J0722-01

Aldrin	1.1	0.075	ug/L	1.0	ND	105	65-135			10/14/13	
Chlorothalonil	11	5.0	ug/L	10	ND	104	65-135			10/14/13	
Dieldrin	0.41	0.020	ug/L	0.40	ND	102	65-135			10/14/13	
Endrin	0.20	0.10	ug/L	0.20	ND	100	65-135			10/14/13	
Heptachlor	0.22	0.010	ug/L	0.20	ND	109	65-135			10/14/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20	ND	98	65-135			10/14/13	
Hexachlorobenzene	2.0	0.50	ug/L	2.0	ND	99	65-135			10/14/13	
Hexachlorocyclopentadiene	1.8	1.0	ug/L	2.0	ND	87	65-135			10/14/13	
Lindane	0.40	0.20	ug/L	0.40	ND	99	65-135			10/14/13	
Methoxychlor	2.0	10	ug/L	2.0	ND	100	65-135			10/14/13	
Trifluralin	2.0	1.0	ug/L	2.0	ND	100	65-135			10/14/13	
Surrogate: TCMX	1.5			1.5		97	70-130			10/14/13	

Matrix Spike Dup (A311954-MSD1), Source: A3J0722-01

Aldrin	1.1	0.075	ug/L	1.0	ND	109	65-135	5	20	10/14/13	
Chlorothalonil	11	5.0	ug/L	10	ND	106	65-135	3	20	10/14/13	
Dieldrin	0.42	0.020	ug/L	0.41	ND	102	65-135	2	20	10/14/13	
Endrin	0.20	0.10	ug/L	0.20	ND	101	65-135	2	20	10/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A311954

Prepared: 10/9/2013

Prep Method: EPA 505

Analyst: GAK

Matrix Spike Dup (A311954-MSD1), Source: A3J0722-01

Heptachlor	0.22	0.010	ug/L	0.20	ND	110	65-135	2	20	10/14/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20	ND	100	65-135	3	20	10/14/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0	ND	102	65-135	4	20	10/14/13	
Hexachlorocyclopentadiene	2.0	1.0	ug/L	2.0	ND	97	65-135	12	20	10/14/13	
Lindane	0.41	0.20	ug/L	0.41	ND	102	65-135	3	20	10/14/13	
Methoxychlor	2.1	10	ug/L	2.0	ND	102	65-135	3	20	10/14/13	
Trifluralin	2.0	1.0	ug/L	2.0	ND	101	65-135	2	20	10/14/13	
Surrogate: TCMX	1.5			1.5		99	70-130			10/14/13	

EPA 515.3 - Quality Control

Batch: A311994

Prepared: 10/9/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank (A311994-BLK1)

2,4,5-T	ND	1.0	ug/L							10/11/13	
2,4,5-TP (Silvex)	ND	1.0	ug/L							10/11/13	
2,4-D	ND	10	ug/L							10/11/13	
Bentazon	ND	2.0	ug/L							10/11/13	
Dalapon	ND	10	ug/L							10/11/13	
Dicamba	ND	1.5	ug/L							10/11/13	
Dinoseb	ND	2.0	ug/L							10/11/13	
Pentachlorophenol	ND	0.20	ug/L							10/11/13	
Picloram	ND	1.0	ug/L							10/11/13	
Surrogate: DCPAA	58			58		99	70-130			10/11/13	

Blank Spike (A311994-BS1)

2,4,5-T	4.8	1.0	ug/L	4.0		120	70-130			10/11/13	
2,4,5-TP (Silvex)	4.8	1.0	ug/L	4.0		120	70-130			10/11/13	
2,4-D	49	10	ug/L	40		122	70-130			10/11/13	
Bentazon	8.8	2.0	ug/L	8.0		111	70-130			10/11/13	
Dalapon	43	10	ug/L	40		108	70-130			10/11/13	
Dicamba	7.4	1.5	ug/L	6.0		122	70-130			10/11/13	
Dinoseb	9.6	2.0	ug/L	8.0		120	70-130			10/11/13	
Pentachlorophenol	1.0	0.20	ug/L	0.80		127	70-130			10/11/13	
Picloram	4.9	1.0	ug/L	4.0		123	70-130			10/11/13	
Surrogate: DCPAA	60			58		104	70-130			10/11/13	

Blank Spike Dup (A311994-BSD1)

2,4,5-T	4.7	1.0	ug/L	4.0		118	70-130	1	20	10/11/13	
2,4,5-TP (Silvex)	4.7	1.0	ug/L	4.0		119	70-130	1	20	10/11/13	
2,4-D	49	10	ug/L	40		121	70-130	0	20	10/11/13	
Bentazon	8.5	2.0	ug/L	8.0		106	70-130	4	20	10/11/13	
Dalapon	43	10	ug/L	40		107	70-130	1	20	10/11/13	
Dicamba	7.2	1.5	ug/L	6.0		121	70-130	2	20	10/11/13	
Dinoseb	9.2	2.0	ug/L	8.0		115	70-130	4	20	10/11/13	
Pentachlorophenol	0.99	0.20	ug/L	0.80		124	70-130	2	20	10/11/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A311994

Prepared: 10/9/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A311994-BSD1)

Picloram	4.9	1.0	ug/L	4.0		123	70-130	0	20	10/11/13	
Surrogate: DCPAA	59			58		102	70-130			10/11/13	

Matrix Spike (A311994-MS1), Source: A3J0477-01

2,4,5-T	4.9	1.0	ug/L	4.0	ND	122	70-130			10/11/13	
2,4,5-TP (Silvex)	4.9	1.0	ug/L	4.0	ND	122	70-130			10/11/13	
2,4-D	50	10	ug/L	40	ND	126	70-130			10/11/13	
Bentazon	8.9	2.0	ug/L	8.0	ND	111	70-130			10/11/13	
Dalapon	43	10	ug/L	40	ND	108	70-130			10/11/13	
Dicamba	7.4	1.5	ug/L	6.0	ND	123	70-130			10/11/13	
Dinoseb	9.4	2.0	ug/L	8.0	ND	118	70-130			10/11/13	
Pentachlorophenol	1.0	0.20	ug/L	0.80	ND	125	70-130			10/11/13	
Picloram	5.0	1.0	ug/L	4.0	ND	126	70-130			10/11/13	
Surrogate: DCPAA	60			58		103	70-130			10/11/13	

Matrix Spike Dup (A311994-MSD1), Source: A3J0477-01

2,4,5-T	4.6	1.0	ug/L	4.0	ND	116	70-130	5	20	10/11/13	
2,4,5-TP (Silvex)	4.7	1.0	ug/L	4.0	ND	116	70-130	5	20	10/11/13	
2,4-D	47	10	ug/L	40	ND	118	70-130	6	20	10/11/13	
Bentazon	8.5	2.0	ug/L	8.0	ND	107	70-130	4	20	10/11/13	
Dalapon	41	10	ug/L	40	ND	103	70-130	5	20	10/11/13	
Dicamba	7.0	1.5	ug/L	6.0	ND	117	70-130	5	20	10/11/13	
Dinoseb	9.1	2.0	ug/L	8.0	ND	114	70-130	3	20	10/11/13	
Pentachlorophenol	0.96	0.20	ug/L	0.80	ND	120	70-130	4	20	10/11/13	
Picloram	4.7	1.0	ug/L	4.0	ND	117	70-130	7	20	10/11/13	
Surrogate: DCPAA	58			58		100	70-130			10/11/13	

EPA 524.2 - Quality Control

Batch: A312121

Prepared: 10/14/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A312121-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							10/14/13	
1,1,1-Trichloroethane	ND	0.50	ug/L							10/14/13	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							10/14/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							10/14/13	
1,1,2-Trichloroethane	ND	0.50	ug/L							10/14/13	
1,1-Dichloroethane	ND	0.50	ug/L							10/14/13	
1,1-Dichloroethene	ND	0.50	ug/L							10/14/13	
1,1-Dichloropropene	ND	0.50	ug/L							10/14/13	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							10/14/13	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							10/14/13	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							10/14/13	
1,2-Dichlorobenzene	ND	0.50	ug/L							10/14/13	
1,2-Dichloroethane	ND	0.50	ug/L							10/14/13	
1,2-Dichloropropane	ND	0.50	ug/L							10/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A312121

Prepared: 10/14/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A312121-BLK1)

1,3,5-Trimethylbenzene	ND	0.50	ug/L							10/14/13	
1,3-Dichlorobenzene	ND	0.50	ug/L							10/14/13	
1,3-Dichloropropane	ND	0.50	ug/L							10/14/13	
1,4-Dichlorobenzene	ND	0.50	ug/L							10/14/13	
2,2-Dichloropropane	ND	0.50	ug/L							10/14/13	
2-Butanone	ND	5.0	ug/L							10/14/13	
2-Chlorotoluene	ND	0.50	ug/L							10/14/13	
2-Hexanone	ND	10	ug/L							10/14/13	
4-Chlorotoluene	ND	0.50	ug/L							10/14/13	
4-Methyl-2-pentanone	ND	5.0	ug/L							10/14/13	
Acetone	ND	10	ug/L							10/14/13	
Benzene	ND	0.50	ug/L							10/14/13	
Bromobenzene	ND	0.50	ug/L							10/14/13	
Bromochloromethane	ND	0.50	ug/L							10/14/13	
Bromodichloromethane	ND	0.50	ug/L							10/14/13	
Bromoform	ND	0.50	ug/L							10/14/13	
Bromomethane	ND	0.50	ug/L							10/14/13	
Carbon Tetrachloride	ND	0.50	ug/L							10/14/13	
Chlorobenzene	ND	0.50	ug/L							10/14/13	
Chloroethane	ND	0.50	ug/L							10/14/13	
Chloroform	ND	0.50	ug/L							10/14/13	
Chloromethane	ND	0.50	ug/L							10/14/13	
cis-1,2-Dichloroethene	ND	0.50	ug/L							10/14/13	
cis-1,3-Dichloropropene	ND	0.50	ug/L							10/14/13	
Dibromochloromethane	ND	0.50	ug/L							10/14/13	
Dibromomethane	ND	0.50	ug/L							10/14/13	
Dichlorodifluoromethane	ND	0.50	ug/L							10/14/13	
Dichloromethane	ND	0.50	ug/L							10/14/13	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							10/14/13	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							10/14/13	
Ethylbenzene	ND	0.50	ug/L							10/14/13	
Hexachlorobutadiene	ND	0.50	ug/L							10/14/13	
Isopropylbenzene	ND	0.50	ug/L							10/14/13	
m,p-Xylenes	ND	0.50	ug/L							10/14/13	
Methyl-t-butyl ether	ND	0.50	ug/L							10/14/13	
Naphthalene	ND	0.50	ug/L							10/14/13	
n-Butylbenzene	ND	0.50	ug/L							10/14/13	
n-Propylbenzene	ND	0.50	ug/L							10/14/13	
o-Xylene	ND	0.50	ug/L							10/14/13	
p-Isopropyltoluene	ND	0.50	ug/L							10/14/13	
sec-Butylbenzene	ND	0.50	ug/L							10/14/13	
Styrene	ND	0.50	ug/L							10/14/13	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							10/14/13	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							10/14/13	
tert-Butylbenzene	ND	0.50	ug/L							10/14/13	
Tetrachloroethene (PCE)	ND	0.50	ug/L							10/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A312121
Prep Method: EPA 524.2

Prepared: 10/14/2013
Analyst: JGB

Blank (A312121-BLK1)

Toluene	ND	0.50	ug/L							10/14/13	
trans-1,2-Dichloroethene	ND	0.50	ug/L							10/14/13	
trans-1,3-Dichloropropene	ND	0.50	ug/L							10/14/13	
Trichloroethene (TCE)	ND	0.50	ug/L							10/14/13	
Trichlorofluoromethane	ND	5.0	ug/L							10/14/13	
Vinyl Chloride	ND	0.50	ug/L							10/14/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.6			5.0		92	70-130			10/14/13	
Surrogate: Bromofluorobenzene	4.9			5.0		97	70-130			10/14/13	

Blank Spike (A312121-BS1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		112	70-130			10/14/13	
1,1,1-Trichloroethane	11	0.50	ug/L	10		111	70-130			10/14/13	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		107	70-130			10/14/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.9	10	ug/L	10		99	70-130			10/14/13	
1,1,2-Trichloroethane	10	0.50	ug/L	10		103	70-130			10/14/13	
1,1-Dichloroethane	10	0.50	ug/L	10		104	70-130			10/14/13	
1,1-Dichloroethene	11	0.50	ug/L	10		111	70-130			10/14/13	
1,1-Dichloropropene	11	0.50	ug/L	10		107	70-130			10/14/13	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		104	70-130			10/14/13	
1,2,4-Trichlorobenzene	10	0.50	ug/L	10		105	70-130			10/14/13	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		104	70-130			10/14/13	
1,2-Dichlorobenzene	10	0.50	ug/L	10		102	70-130			10/14/13	
1,2-Dichloroethane	10	0.50	ug/L	10		104	70-130			10/14/13	
1,2-Dichloropropane	11	0.50	ug/L	10		106	70-130			10/14/13	
1,3,5-Trimethylbenzene	10	0.50	ug/L	10		103	70-130			10/14/13	
1,3-Dichlorobenzene	11	0.50	ug/L	10		105	70-130			10/14/13	
1,3-Dichloropropane	10	0.50	ug/L	10		101	70-130			10/14/13	
1,4-Dichlorobenzene	10	0.50	ug/L	10		103	70-130			10/14/13	
2,2-Dichloropropane	13	0.50	ug/L	10		126	70-130			10/14/13	
2-Butanone	10	5.0	ug/L	10		104	70-130			10/14/13	
2-Chlorotoluene	10	0.50	ug/L	10		103	70-130			10/14/13	
2-Hexanone	11	10	ug/L	10		109	70-130			10/14/13	
4-Chlorotoluene	10	0.50	ug/L	10		103	70-130			10/14/13	
4-Methyl-2-pentanone	11	5.0	ug/L	10		111	70-130			10/14/13	
Acetone	11	10	ug/L	10		113	70-130			10/14/13	
Benzene	9.8	0.50	ug/L	10		98	70-130			10/14/13	
Bromobenzene	11	0.50	ug/L	10		106	70-130			10/14/13	
Bromochloromethane	11	0.50	ug/L	10		110	70-130			10/14/13	
Bromodichloromethane	11	0.50	ug/L	10		111	70-130			10/14/13	
Bromoform	10	0.50	ug/L	10		102	70-130			10/14/13	
Bromomethane	7.9	0.50	ug/L	10		79	70-130			10/14/13	
Carbon Tetrachloride	11	0.50	ug/L	10		108	70-130			10/14/13	
Chlorobenzene	9.9	0.50	ug/L	10		99	70-130			10/14/13	
Chloroethane	12	0.50	ug/L	10		122	70-130			10/14/13	
Chloroform	11	0.50	ug/L	10		109	70-130			10/14/13	
Chloromethane	8.9	0.50	ug/L	10		89	70-130			10/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A312121

Prepared: 10/14/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A312121-BS1)

cis-1,2-Dichloroethene	10	0.50	ug/L	10		104	70-130			10/14/13	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		112	70-130			10/14/13	
Dibromochloromethane	11	0.50	ug/L	10		110	70-130			10/14/13	
Dibromomethane	11	0.50	ug/L	10		105	70-130			10/14/13	
Dichlorodifluoromethane	7.5	0.50	ug/L	10		75	70-130			10/14/13	
Dichloromethane	10	0.50	ug/L	10		100	70-130			10/14/13	
Di-isopropyl ether (DIPE)	12	3.0	ug/L	10		119	70-130			10/14/13	
Ethyl tert-Butyl Ether (ETBE)	12	0.50	ug/L	10		120	70-130			10/14/13	
Ethylbenzene	9.7	0.50	ug/L	10		97	70-130			10/14/13	
Hexachlorobutadiene	9.9	0.50	ug/L	10		99	70-130			10/14/13	
Isopropylbenzene	11	0.50	ug/L	10		106	70-130			10/14/13	
m,p-Xylenes	19	0.50	ug/L	20		95	70-130			10/14/13	
Methyl-t-butyl ether	22	0.50	ug/L	20		110	70-130			10/14/13	
Naphthalene	9.8	0.50	ug/L	10		98	70-130			10/14/13	
n-Butylbenzene	10	0.50	ug/L	10		105	70-130			10/14/13	
n-Propylbenzene	11	0.50	ug/L	10		105	70-130			10/14/13	
o-Xylene	9.5	0.50	ug/L	10		95	70-130			10/14/13	
p-Isopropyltoluene	11	0.50	ug/L	10		105	70-130			10/14/13	
sec-Butylbenzene	10	0.50	ug/L	10		103	70-130			10/14/13	
Styrene	12	0.50	ug/L	10		117	70-130			10/14/13	
tert-Amyl Methyl Ether (TAME)	11	3.0	ug/L	10		106	70-130			10/14/13	
tert-Butyl alcohol (TBA)	11	2.0	ug/L	10		107	70-130			10/14/13	
tert-Butylbenzene	9.9	0.50	ug/L	10		99	70-130			10/14/13	
Tetrachloroethene (PCE)	9.8	0.50	ug/L	10		98	70-130			10/14/13	
Toluene	9.8	0.50	ug/L	10		98	70-130			10/14/13	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		113	70-130			10/14/13	
trans-1,3-Dichloropropene	12	0.50	ug/L	10		117	70-130			10/14/13	
Trichloroethene (TCE)	10	0.50	ug/L	10		104	70-130			10/14/13	
Trichlorofluoromethane	11	5.0	ug/L	10		110	70-130			10/14/13	
Vinyl Chloride	9.2	0.50	ug/L	10		92	70-130			10/14/13	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		100	70-130			10/14/13	
Surrogate: Bromofluorobenzene	5.1			5.0		102	70-130			10/14/13	

Blank Spike Dup (A312121-BSD1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		112	70-130	0	30	10/14/13	
1,1,1-Trichloroethane	11	0.50	ug/L	10		111	70-130	0	30	10/14/13	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		107	70-130	0	30	10/14/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.8	10	ug/L	10		98	70-130	1	30	10/14/13	
1,1,2-Trichloroethane	10	0.50	ug/L	10		100	70-130	4	30	10/14/13	
1,1-Dichloroethane	9.8	0.50	ug/L	10		98	70-130	6	30	10/14/13	
1,1-Dichloroethene	11	0.50	ug/L	10		106	70-130	4	30	10/14/13	
1,1-Dichloropropene	11	0.50	ug/L	10		108	70-130	1	30	10/14/13	
1,2,3-Trichlorobenzene	11	0.50	ug/L	10		106	70-130	3	30	10/14/13	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		107	70-130	2	30	10/14/13	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		105	70-130	1	30	10/14/13	
1,2-Dichlorobenzene	10	0.50	ug/L	10		104	70-130	2	30	10/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A312121

Prepared: 10/14/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A312121-BSD1)

1,2-Dichloroethane	9.8	0.50	ug/L	10		98	70-130	5	30	10/14/13	
1,2-Dichloropropane	10	0.50	ug/L	10		104	70-130	3	30	10/14/13	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		105	70-130	2	30	10/14/13	
1,3-Dichlorobenzene	11	0.50	ug/L	10		108	70-130	3	30	10/14/13	
1,3-Dichloropropane	9.8	0.50	ug/L	10		98	70-130	3	30	10/14/13	
1,4-Dichlorobenzene	11	0.50	ug/L	10		106	70-130	3	30	10/14/13	
2,2-Dichloropropane	12	0.50	ug/L	10		124	70-130	2	30	10/14/13	
2-Butanone	9.8	5.0	ug/L	10		98	70-130	7	30	10/14/13	
2-Chlorotoluene	10	0.50	ug/L	10		105	70-130	2	30	10/14/13	
2-Hexanone	10	10	ug/L	10		103	70-130	6	30	10/14/13	
4-Chlorotoluene	11	0.50	ug/L	10		105	70-130	2	30	10/14/13	
4-Methyl-2-pentanone	11	5.0	ug/L	10		106	70-130	5	30	10/14/13	
Acetone	10	10	ug/L	10		104	70-130	8	30	10/14/13	
Benzene	9.9	0.50	ug/L	10		99	70-130	1	30	10/14/13	
Bromobenzene	11	0.50	ug/L	10		106	70-130	0	30	10/14/13	
Bromochloromethane	10	0.50	ug/L	10		103	70-130	7	30	10/14/13	
Bromodichloromethane	11	0.50	ug/L	10		107	70-130	4	30	10/14/13	
Bromoform	10	0.50	ug/L	10		101	70-130	1	30	10/14/13	
Bromomethane	7.6	0.50	ug/L	10		76	70-130	4	30	10/14/13	
Carbon Tetrachloride	11	0.50	ug/L	10		109	70-130	0	30	10/14/13	
Chlorobenzene	9.7	0.50	ug/L	10		97	70-130	2	30	10/14/13	
Chloroethane	13	0.50	ug/L	10		132	70-130	8	30	10/14/13	BS High
Chloroform	10	0.50	ug/L	10		104	70-130	4	30	10/14/13	
Chloromethane	9.2	0.50	ug/L	10		92	70-130	4	30	10/14/13	
cis-1,2-Dichloroethene	9.6	0.50	ug/L	10		96	70-130	7	30	10/14/13	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		109	70-130	3	30	10/14/13	
Dibromochloromethane	10	0.50	ug/L	10		103	70-130	7	30	10/14/13	
Dibromomethane	9.8	0.50	ug/L	10		98	70-130	7	30	10/14/13	
Dichlorodifluoromethane	7.8	0.50	ug/L	10		78	70-130	4	30	10/14/13	
Dichloromethane	10	0.50	ug/L	10		100	70-130	1	30	10/14/13	
Di-isopropyl ether (DIPE)	12	3.0	ug/L	10		116	70-130	3	30	10/14/13	
Ethyl tert-Butyl Ether (ETBE)	12	0.50	ug/L	10		118	70-130	2	30	10/14/13	
Ethylbenzene	9.4	0.50	ug/L	10		94	70-130	3	30	10/14/13	
Hexachlorobutadiene	10	0.50	ug/L	10		104	70-130	4	30	10/14/13	
Isopropylbenzene	11	0.50	ug/L	10		106	70-130	1	30	10/14/13	
m,p-Xylenes	19	0.50	ug/L	20		94	70-130	1	30	10/14/13	
Methyl-t-butyl ether	21	0.50	ug/L	20		106	70-130	3	30	10/14/13	
Naphthalene	10	0.50	ug/L	10		100	70-130	1	30	10/14/13	
n-Butylbenzene	11	0.50	ug/L	10		106	70-130	1	30	10/14/13	
n-Propylbenzene	11	0.50	ug/L	10		106	70-130	1	30	10/14/13	
o-Xylene	9.4	0.50	ug/L	10		94	70-130	1	30	10/14/13	
p-Isopropyltoluene	11	0.50	ug/L	10		106	70-130	1	30	10/14/13	
sec-Butylbenzene	11	0.50	ug/L	10		110	70-130	7	30	10/14/13	
Styrene	12	0.50	ug/L	10		118	70-130	1	30	10/14/13	
tert-Amyl Methyl Ether (TAME)	10	3.0	ug/L	10		104	70-130	2	30	10/14/13	
tert-Butyl alcohol (TBA)	10	2.0	ug/L	10		104	70-130	3	30	10/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A312121

Prepared: 10/14/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A312121-BSD1)

tert-Butylbenzene	10	0.50	ug/L	10		100	70-130	2	30	10/14/13	
Tetrachloroethene (PCE)	9.8	0.50	ug/L	10		98	70-130	0	30	10/14/13	
Toluene	9.5	0.50	ug/L	10		95	70-130	3	30	10/14/13	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		108	70-130	4	30	10/14/13	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		112	70-130	5	30	10/14/13	
Trichloroethene (TCE)	11	0.50	ug/L	10		107	70-130	3	30	10/14/13	
Trichlorofluoromethane	10	5.0	ug/L	10		104	70-130	6	30	10/14/13	
Vinyl Chloride	9.7	0.50	ug/L	10		97	70-130	5	30	10/14/13	
Surrogate: 1,2-Dichlorobenzene-d4	5.1			5.0		102	70-130			10/14/13	
Surrogate: Bromofluorobenzene	5.1			5.0		102	70-130			10/14/13	

EPA 525.2 - Quality Control

Batch: A312014

Prepared: 10/10/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank (A312014-BLK1)

Alachlor	ND	1.0	ug/L							10/11/13	
Atrazine	ND	0.50	ug/L							10/11/13	
Benzo(a)pyrene	ND	0.10	ug/L							10/11/13	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							10/11/13	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							10/11/13	
Bromacil	ND	10	ug/L							10/11/13	
Butachlor	ND	0.38	ug/L							10/11/13	
Diazinon	ND	0.25	ug/L							10/11/13	
Dimethoate	ND	10	ug/L							10/11/13	
Metolachlor	ND	0.50	ug/L							10/11/13	
Metribuzin	ND	0.50	ug/L							10/11/13	
Molinate	ND	2.0	ug/L							10/11/13	
Propachlor	ND	0.50	ug/L							10/11/13	
Simazine	ND	1.0	ug/L							10/11/13	
Thiobencarb	ND	1.0	ug/L							10/11/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.3			5.0		106	70-130			10/11/13	

Blank Spike (A312014-BS1)

Alachlor	0.53	1.0	ug/L	0.50		108	70-130			10/11/13	
Atrazine	0.51	0.50	ug/L	0.50		103	70-130			10/11/13	
Benzo(a)pyrene	0.11	0.10	ug/L	0.099		107	70-130			10/11/13	
Bis(2-ethylhexyl) adipate	3.3	3.0	ug/L	3.0		110	70-130			10/11/13	
Bis(2-ethylhexyl) phthalate	3.4	3.0	ug/L	3.0		115	70-130			10/11/13	
Bromacil	2.6	10	ug/L	2.0		129	70-130			10/11/13	
Butachlor	1.4	0.38	ug/L	1.2		114	70-130			10/11/13	
Diazinon	0.049	0.25	ug/L	0.050		98	70-130			10/11/13	
Dimethoate	0.56	10	ug/L	0.50		114	70-130			10/11/13	
Metolachlor	2.8	0.50	ug/L	2.5		111	70-130			10/11/13	
Metribuzin	2.8	0.50	ug/L	2.5		113	70-130			10/11/13	
Molinate	2.7	2.0	ug/L	2.5		109	70-130			10/11/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A312014

Prepared: 10/10/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A312014-BS1)

Propachlor	2.7	0.50	ug/L	2.5		108	70-130			10/11/13	
Simazine	0.41	1.0	ug/L	0.35		117	70-130			10/11/13	
Thiobencarb	0.52	1.0	ug/L	0.50		104	70-130			10/11/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.8			5.0		97	70-130			10/11/13	

Blank Spike Dup (A312014-BSD1)

Alachlor	0.51	1.0	ug/L	0.49		104	70-130	5	30	10/11/13	
Atrazine	0.49	0.50	ug/L	0.49		99	70-130	4	30	10/11/13	
Benzo(a)pyrene	0.10	0.10	ug/L	0.098		106	70-130	2	30	10/11/13	
Bis(2-ethylhexyl) adipate	3.1	3.0	ug/L	2.9		106	70-130	4	30	10/11/13	
Bis(2-ethylhexyl) phthalate	3.3	3.0	ug/L	2.9		112	70-130	4	30	10/11/13	
Bromacil	2.2	10	ug/L	2.0		110	70-130	17	30	10/11/13	
Butachlor	1.2	0.38	ug/L	1.2		99	70-130	14	30	10/11/13	
Diazinon	0.048	0.25	ug/L	0.049		98	70-130	1	30	10/11/13	
Dimethoate	0.47	10	ug/L	0.49		95	70-130	19	30	10/11/13	
Metolachlor	2.5	0.50	ug/L	2.5		104	70-130	8	30	10/11/13	
Metribuzin	2.5	0.50	ug/L	2.5		100	70-130	13	30	10/11/13	
Molinate	2.6	2.0	ug/L	2.5		105	70-130	5	30	10/11/13	
Propachlor	2.5	0.50	ug/L	2.5		104	70-130	5	30	10/11/13	
Simazine	0.34	1.0	ug/L	0.34		99	70-130	18	30	10/11/13	
Thiobencarb	0.49	1.0	ug/L	0.49		100	70-130	5	30	10/11/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.9			4.9		100	70-130			10/11/13	

Matrix Spike (A312014-MS1), Source: A3J0858-01

Alachlor	0.63	1.0	ug/L	0.50	ND	127	70-130			10/11/13	
Atrazine	0.59	0.50	ug/L	0.50	ND	118	70-130			10/11/13	
Benzo(a)pyrene	0.18	0.10	ug/L	0.099	ND	154	70-130			10/11/13	MS1.0 High
Bis(2-ethylhexyl) adipate	3.5	3.0	ug/L	3.0	ND	117	70-130			10/11/13	
Bis(2-ethylhexyl) phthalate	4.3	3.0	ug/L	3.0	ND	133	70-130			10/11/13	MS1.0 High
Bromacil	2.9	10	ug/L	2.0	ND	148	70-130			10/11/13	MS1.0 High
Butachlor	1.6	0.38	ug/L	1.2	ND	130	70-130			10/11/13	
Diazinon	0.053	0.25	ug/L	0.050	ND	106	70-130			10/11/13	
Dimethoate	0.72	10	ug/L	0.50	ND	146	70-130			10/11/13	MS1.0 High
Metolachlor	2.9	0.50	ug/L	2.5	ND	118	70-130			10/11/13	
Metribuzin	2.8	0.50	ug/L	2.5	ND	115	70-130			10/11/13	
Molinate	2.6	2.0	ug/L	2.5	ND	104	70-130			10/11/13	
Propachlor	2.6	0.50	ug/L	2.5	ND	105	70-130			10/11/13	
Simazine	0.45	1.0	ug/L	0.35	ND	129	70-130			10/11/13	
Thiobencarb	0.59	1.0	ug/L	0.50	ND	119	70-130			10/11/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.8			5.0		97	70-130			10/11/13	

EPA 531.1 - Quality Control

Batch: A312119

Prepared: 10/12/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A312119-BLK1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A312119

Prepared: 10/12/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A312119-BLK1)

3-Hydroxycarbofuran	ND	2.0	ug/L							10/12/13	
Aldicarb	ND	2.0	ug/L							10/12/13	
Aldicarb Sulfone	ND	2.0	ug/L							10/12/13	
Aldicarb Sulfoxide	ND	2.0	ug/L							10/12/13	
Carbaryl	ND	2.0	ug/L							10/12/13	
Carbofuran	ND	2.0	ug/L							10/12/13	
Methomyl	ND	2.0	ug/L							10/12/13	
Oxamyl	ND	2.0	ug/L							10/12/13	

Blank Spike (A312119-BS1)

3-Hydroxycarbofuran	4.6	2.0	ug/L	4.2		110	80-120			10/12/13	
Aldicarb	4.7	2.0	ug/L	4.2		112	80-120			10/12/13	
Aldicarb Sulfone	4.4	2.0	ug/L	4.2		107	80-120			10/12/13	
Aldicarb Sulfoxide	4.3	2.0	ug/L	4.2		104	80-120			10/12/13	
Carbaryl	4.5	2.0	ug/L	4.2		108	80-120			10/12/13	
Carbofuran	4.5	2.0	ug/L	4.2		108	80-120			10/12/13	
Methomyl	4.2	2.0	ug/L	4.2		100	80-120			10/12/13	
Oxamyl	4.6	2.0	ug/L	4.2		110	80-120			10/12/13	

Blank Spike Dup (A312119-BSD1)

3-Hydroxycarbofuran	4.3	2.0	ug/L	4.2		102	80-120	8	20	10/12/13	
Aldicarb	4.9	2.0	ug/L	4.2		117	80-120	4	20	10/12/13	
Aldicarb Sulfone	4.0	2.0	ug/L	4.2		96	80-120	10	20	10/12/13	
Aldicarb Sulfoxide	4.0	2.0	ug/L	4.2		95	80-120	9	20	10/12/13	
Carbaryl	4.2	2.0	ug/L	4.2		101	80-120	6	20	10/12/13	
Carbofuran	4.1	2.0	ug/L	4.2		99	80-120	9	20	10/12/13	
Methomyl	3.8	2.0	ug/L	4.2		90	80-120	10	20	10/12/13	
Oxamyl	4.2	2.0	ug/L	4.2		102	80-120	8	20	10/12/13	

Matrix Spike (A312119-MS1), Source: A3J0644-01

3-Hydroxycarbofuran	4.2	2.0	ug/L	4.2	ND	100	65-135			10/12/13	
Aldicarb	4.5	2.0	ug/L	4.2	ND	107	65-135			10/12/13	
Aldicarb Sulfone	4.0	2.0	ug/L	4.2	ND	97	65-135			10/12/13	
Aldicarb Sulfoxide	4.0	2.0	ug/L	4.2	ND	95	65-135			10/12/13	
Carbaryl	4.3	2.0	ug/L	4.2	ND	103	65-135			10/12/13	
Carbofuran	4.2	2.0	ug/L	4.2	ND	101	65-135			10/12/13	
Methomyl	3.7	2.0	ug/L	4.2	ND	90	65-135			10/12/13	
Oxamyl	4.3	2.0	ug/L	4.2	ND	102	65-135			10/12/13	

EPA 547 - Quality Control

Batch: A312197

Prepared: 10/15/2013

Prep Method: EPA 547

Analyst: RJB

Blank (A312197-BLK1)

Glyphosate	ND	25	ug/L							10/15/13	
Surrogate: AMPA	110			100		113	70-130			10/15/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 547 - Quality Control

Batch: A312197

Prepared: 10/15/2013

Prep Method: EPA 547

Analyst: RJB

Blank Spike (A312197-BS1)

Glyphosate	100	25	ug/L	100		101	70-130			10/15/13	
Surrogate: AMPA	110			100		112	70-130			10/15/13	

Blank Spike Dup (A312197-BSD1)

Glyphosate	100	25	ug/L	100		102	70-130	1	30	10/15/13	
Surrogate: AMPA	120			100		115	70-130			10/15/13	

Matrix Spike (A312197-MS1), Source: A3J0722-01

Glyphosate	100	25	ug/L	100	ND	100	70-130			10/15/13	
Surrogate: AMPA	110			100		111	70-130			10/15/13	

Matrix Spike Dup (A312197-MSD1), Source: A3J0722-01

Glyphosate	100	25	ug/L	100	ND	102	70-130	2	30	10/15/13	
Surrogate: AMPA	120			100		115	70-130			10/15/13	

EPA 548.1 - Quality Control

Batch: A312182

Prepared: 10/14/2013

Prep Method: EPA 548.1

Analyst: KHH

Blank (A312182-BLK1)

Endothall	ND	45	ug/L							10/15/13	
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Blank Spike (A312182-BS1)

Endothall	15	45	ug/L	20		74	60-111			10/15/13	
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Blank Spike Dup (A312182-BSD1)

Endothall	14	45	ug/L	20		68	60-111	8	46	10/15/13	
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Matrix Spike (A312182-MS1), Source: A3J0722-01

Endothall	13	45	ug/L	20	ND	66	10-122			10/15/13	
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EPA 549.2 - Quality Control

Batch: A312161

Prepared: 10/14/2013

Prep Method: EPA 549.2

Analyst: PYA

Blank (A312161-BLK1)

Diquat	ND	4.0	ug/L							10/16/13	
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Blank Spike (A312161-BS1)

Diquat	3.6	4.0	ug/L	4.0		90	70-130			10/16/13	
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Blank Spike Dup (A312161-BSD1)

Diquat	3.6	4.0	ug/L	4.0		91	70-130	1	30	10/16/13	
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Matrix Spike (A312161-MS1), Source: A3J1185-01

Diquat	3.5	4.0	ug/L	4.0	ND	87	70-130			10/16/13	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 549.2 - Quality Control

Batch: A312161

Prepared: 10/14/2013

Prep Method: EPA 549.2

Analyst: PYA

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of California - ELAP	1180	State of Nevada	CA000792009A
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA
State of California - NELAP	04227CA	State of Oregon	4017
State of Washington	C997	State of Oregon - NWT PH	4021

BSK is not accredited under the NELAC program for the following parameters:

Boron	Silica (SiO2)	Strontium
Threshold Odor		

A3J0709



California American Water

Calif3295



10082013

Turnaround: Standard
Due Date: 10/22/2013



***Required Fields** Temp: _____

Company/Client Name*: California American Water	Report Attention*: Travis Peterson Additional ccs: Sarp Sekeroglu, RBF Consulting	Invoice To*: Accounts Payable PO#:	Phone*: (831) 646-3295/(831) 646-3269 Fax*: (831) 333-1343
Address*: PO Box 951 City*: Monterey State*: CA Zip*: 93942-0951			E-mail*: susan.jacobson@amwater.com, travis.peterson@amwater.com

Project: Water Quality Analysis	Project #:	Regulatory Carbon Copies <input type="checkbox"/> CDPH <input type="checkbox"/> Merced Co <input type="checkbox"/> Madera Co <input type="checkbox"/> Fresno Co <input type="checkbox"/> Tulare Co <input type="checkbox"/> Other: _____
Reporting Options: <input type="checkbox"/> Trace (J-Flag) <input type="checkbox"/> Swamp <input type="checkbox"/> EDD Type: _____	How would you like your completed results sent*? <input checked="" type="checkbox"/> E-Mail <input type="checkbox"/> Fax <input type="checkbox"/> Mail	Regulatory Compliance <input type="checkbox"/> EDT to California DPH <input type="checkbox"/> System Number*: _____ <input type="checkbox"/> Geotracker #: _____
Sampler Name (Printed/Signature)*:	TAT* <input checked="" type="checkbox"/> Standard - 13 Business Days <input type="checkbox"/> **Rush: Date Needed: _____	**Surcharge

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled*		Matrix*	Comments / Station Code / WTRAX	Alkalinity, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC	Mass Balance-Dissolved: Cations and Anions	Dissolved Metals: Ba, B, Ca, Fe, Mg, Mn, K, Na, Sr, silica	Total Metals: Al, As, Cu, Fe, Mn, Zn	Dissolved: Bromide, Chloride, Nitrite, Fluoride, Sulfate, Orthophosphate-P	Dissolved: Ammonia, TKN, Phosphorus	Nitrate-Nitrite as N, Nitrate-NO3	EPA 524, 504, 505, 515, 525, 531, 547, 548, 549	EXT-Tritium, EXT-Lithium, EXT-Dissolved Iodide, EXT-Dioxin
		Date	Time											
				water	Seawater salinity levels.	X	X	X	X	X	X	X	X	X
					Lab to filter dissolved metals.									
					Lab to filter Diss. Ammonia, TKN, P									
					Okay to analyze out of hold time.									

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company	
Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company	
Received for Lab by: (Signature and Printed Name)	Date	Time	Payment Received at Delivery:	Check / Cash		
			Date:	Amount	PIA#	Init.

Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Courier: _____ Custody Seal: Y / N

Cooling Method: Wet Blue None Chilling Process Begun: Y / N

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$ <u>5.6</u>			Were correct containers and preservatives received for the tests requested?		
	Yes	No	NA	Yes	No	NA
COC Info	If samples were taken today, is there evidence that chilling has begun?			Were there bubbles in the VOA vials? (Volatiles Only)		
	Yes	No	NA	Yes	No	NA
COC Info	Did all bottles arrive unbroken and intact?			Was a sufficient amount of sample received?		
	Yes	No	NA	Yes	No	NA
COC Info	Did all bottle labels agree with COC?			Do samples have a hold time <72 hours?		
	Yes	No	NA	Yes	No	NA
COC Info	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?			Was PM notified of discrepancies? PM: _____ By/Time: _____		
	Yes	No	NA	Yes	No	NA
Bottles Received "—" means preservation/chlorine checks are either N/A or are performed in the lab	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	/		
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—	/		
	None (P) ^{White Cap}	—	—	2C, 1B, 1A		
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y N	/		
	HNO_3 (P) ^{Red Cap}	—	—	2B		
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y N	/		
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y N	/		
	$\text{NaOH} + \text{ZnAc}$ (P)	pH ≥ 9	Y N	/		
	Dissolved Oxygen 300ml (g)	—	—	/		
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—	2C, 1A, 1B		
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—	/		
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—	/		
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—	/		
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—	/		
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—	/		
	$\text{Na}_2\text{S}_2\text{O}_3 + \text{MCAA}$ (CG) ^{Orange Label} 531	pH = 3	Y N	/		
	NH_4Cl (AG) ^{Purple Label} 552	—	—	/		
	EDA (AG) ^{Brown Label} DBPs	—	—	/		
	Ascorbic + Maleic (AG) ^{LT Green Label} 524.3	—	—	/		
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—	3V		
	Buffer pH 4 (CG)	—	—	/		
	None (CG)	—	—	/		
	H_3PO_4 (CG) ^{Salmon Label}	—	—	/		
	Other:	—	—	/		
	Asbestos 1Liter Plastic w/ Foil	—	—	/		
	Low Level Hg / Metals Double Baggie	—	—	/		
	Bottled Water	—	—	/		
	Clear Glass Jar: 250 / 500 / 1 Liter	—	—	/		
Soil Tube Brass / Steel / Plastic	—	—	/			
Tedlar Bag / Plastic Bag	—	—	/			
Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials
	S P			S P		
Comments	No tests required					
	Sampled 10/5 H.T. Exceeded a various analyses.					

Labeled by: PRW @ 13:46

Labels checked by: G-664 @ 1406

RUSH Paged by: _____

External



A3J0709





Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

November 11, 2013

Mr. Michael Ng
BSK Analytical Laboratories
1414 Stanislaus St.
Fresno, CA 93706

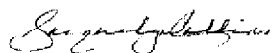
RE: Project: A3J0709
Pace Project No.: 30105811

Dear Mr. Ng:

Enclosed are the analytical results for sample(s) received by the laboratory on October 23, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins

jacquelyn.collins@pacelabs.com
Project Manager

Enclosures





Pace Analytical Services, Inc.
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

CERTIFICATIONS

Project: A3J0709
 Pace Project No.: 30105811

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
 ACLASS DOD-ELAP Accreditation #: ADE-1544
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California/TNI Certification #: 04222CA
 Colorado Certification
 Connecticut Certification #: PH-0694
 Delaware Certification
 Florida/TNI Certification #: E87683
 Guam/PADEP Certification
 Hawaii/PADEP Certification
 Idaho Certification
 Illinois/PADEP Certification
 Indiana/PADEP Certification
 Iowa Certification #: 391
 Kansas/TNI Certification #: E-10358
 Kentucky Certification #: 90133
 Louisiana/TNI Certification #: LA080002
 Louisiana/TNI Certification #: 4088
 Maine Certification #: PA0091
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification

Missouri Certification #: 235
 Montana Certification #: Cert 0082
 Nevada Certification
 New Hampshire/TNI Certification #: 2976
 New Jersey/TNI Certification #: PA 051
 New Mexico Certification
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Oregon/TNI Certification #: PA200002
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 South Dakota Certification
 Tennessee Certification #: TN2867
 Texas/TNI Certification #: T104704188
 Utah/TNI Certification #: ANTE
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 460198
 Washington Certification #: C868
 West Virginia Certification #: 143
 Wisconsin/PADEP Certification
 Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: A3J0709
Pace Project No.: 30105811

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30105811001	A3J0709-01	Water	10/05/13 00:00	10/23/13 10:15

REPORT OF LABORATORY ANALYSIS

G-668

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: A3J0709
Pace Project No.: 30105811

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30105811001	A3J0709-01	EPA 906.0	SLA	1	PASI-PA



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: A3J0709
Pace Project No.: 30105811

Method: EPA 906.0
Description: 906.0 Tritium
Client: BSK Analytical Laboratories
Date: November 11, 2013

General Information:

1 sample was analyzed for EPA 906.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



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 Greensburg, PA 15601
 (724)850-5600

ANALYTICAL RESULTS

Project: A3J0709
 Pace Project No.: 30105811

Sample: A3J0709-01		Lab ID: 30105811001	Collected: 10/05/13 00:00	Received: 10/23/13 10:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Tritium	EPA 906.0	47.5 ± 127 (220)	pCi/L	10/27/13 03:05	10028-17-8	



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 Greensburg, PA 15601
 (724)850-5600

QUALIFIERS

Project: A3J0709
 Pace Project No.: 30105811

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg



SUBCONTRACT ORDER

A3J0709

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical-Radiochem
1638 Roseytown Rd Ste 2,3,4
Greensburg, PA 15601
Phone : (724) 850-5600
Fax: (724) 722-5208
Turnaround (Days): Standard
QC Deliverables: Std. III IV

30105811

Sample ID	Samp Desc	Comments	Sample Date
A3J0709-01	Water Samples		10/05/2013 00:00
	Matrix: Water		
	Analysis	High salinity samples. Okay to run out of HT.	001
	EXT-Tritium	Non preserved glass container	

1-250ml/H₂O

Alvarez BSK 10/16/13 1530/URS

Released By _____ Date _____ Received By _____ Date _____
 G-674 _____ 10-23-13

Sample Condition Upon Receipt



Client Name: Bsk

Project # 3010581

PAC

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1Z 93X921035784837C

Optional Proj. Due Date: Proj. Name:
--

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other Foam, Plastic & Ziplock bags

Thermometer Used 5 6 7

Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature NA

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: <u>PAC 10-23-13</u>

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed <u>PAC</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Handwritten signature and date: 10/23/13

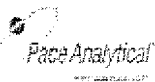


Project Number: 30105811
 Client Name: BSK

Item No.	Matrix Code	Sample Description	Analysis Method	Preserved	Y
001	ST	Glass Jar (120 / 250 / 500 / 1L)			
		Soil kit (2 SB, 1M, soil jar)			
		Chemistry (250 / 500 / 1L)			
		Organics (1L)			
		Nutrient (250 / 500)			
		Phenolics (250 ml)			
		TOC (40 ml / 250 ml)			
		TOX (250 ml)			
		Total Metals			
		Dissolved Metals			
		O & G (1L)			
		TPH (1L)			
		VOA (40 ml 30 ml)			
		Cyanide (250 ml)			
		Sulfide (500 ml)			
		Bacteria (120 ml)			
		Wipes / swipec/ smear/ filter			
		Radchem Nalgene (125 / 250 / 500 / 1L)			
		Radchem Nalgene (1/2 gal. / 1 gal.L)			
		Cubitainer (500 ml / 4L)			
		Ziploc			
		Other			
		Other			

QA Assessment Spreadsheet
PACE Analytical Services

Quality Control Sample Performance Assessment



Analyst: SLA
Date: 10/20/2013 Method: EPA 806 D
Worklist: 17544 SOP: PGHR-021
Matrix: DW MB Sample ID: 848231

Method Blank Assessment						
Analyte	Activity	1.96 Sig Unc.	MDC	Critical Value	Flag	Assessment
Tritium	35.3300	127.7000	221.9000	105.62000		

Laboratory Control Sample Assessment						
Analyte	LCS	LCSD	LCS	LCSD	LCS	LCSD
Count Date:	10/27/13 5:07	10/27/13 6:08				
Spike I.D.:	10-003	10-003				
Spike Concentration (pCi/L):	2533.482	2533.465				
Volume Used (mL):	0.100	0.100				
Aliquot Volume (L, g, F):	0.100	0.100				
Target Conc. (pCi/L, g, F):	2533.482	2533.465				
1.96 Sigma Uncertainty (Calculated):	69.519	69.519				
Result (pCi/L, g, F):	2132.350	2070.450				
1.96 Sigma Unc:	226.000	219.200				
% Recovery:	84.17%	81.72%				
Assessment:	Pass	Pass				
Upper % Recovery Limits:	125.00%	125.00%				
Lower % Recovery Limits:	75.00%	75.00%				

Duplicate Sample Assessment	
LCS/LCSD Y or N?:	Y
Analyte:	Tritium
Sample I.D.:	LCS17544
Duplicate Sample I.D.:	LCSD17544
Sample Result (pCi/L, g, F):	2132.3500
1.96 Sigma Unc:	226.0000
Sample Duplicate Result (pCi/L, g, F):	2070.4500
Duplicate Sample 1.96 Sigma Unc:	219.2000
Either results below MDC?:	N
Relative Percent Difference:	2.95%
Assessment:	Pass
% RPD Limit:	25.00%

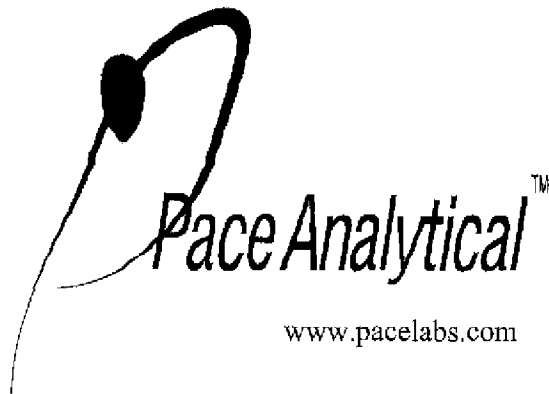
Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC

Comments:

Handwritten signature/initials

Sample Matrix Spike Control Assessment		
Analyte:	Tritium	Tritium
Sample Collection Date:	10/10/2013	10/17/2013
Sample I.D.:	30105413002	30105314001
Sample MS I.D.:	30105413002MS	30105314001MS
Sample MSD I.D.:		
Spike I.D.:	10-003	10-003
MS/MSD Decay Corrected Spike Conc. (pCi/L):	2540.012	2541.156
Spike Volume Used in MS (mL):	0.20	0.20
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):	0.1000	0.1000
MS Target Conc. (pCi/L, g, F):	5080.025	5082.393
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike uncertainty (calculated):	139.398	139.461
MSD Spike uncertainty (calculated):		
Sample Result:	-12.570	-12.560
Sample 1.96 Sigma Unc.:	124.200	124.100
Sample Matrix Spike Result:	4464.660	4757.060
Sample MS 1.96 Sigma Unc.:	287.000	309.600
Sample Matrix Spike Duplicate Result:		
Sample MSD 1.96 Sigma Unc.:		
MS % Recovery:	86.13%	94.04%
MSD % Recovery:		
MS Assessment:	Pass	Pass
MSD Assessment:		
MS/MSD Upper % Recovery Limits:	125.00%	125.00%
MS/MSD Lower % Recovery Limits:	75.00%	75.00%

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Analyte:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Sample Matrix Spike Result:		
Sample Matrix Spike 1.96 Sigma Unc.:		
Sample Matrix Spike Duplicate Result:		
Sample Matrix Spike Duplicate 1.96 Sigma Unc.:		
MS/MSD Relative Percent Difference:		
MS/MSD RPD Assessment:		
% RPD Limit:		



Pace Analytical Services, Inc.

1700 Elm Street

Minneapolis, MN 55414

Phone: 612.607.1700

Fax: 612.607.6444

Report Prepared for:

Michael Ng
BSK Analytical Laboratories
1414 Stanislaus Street
Fresno CA 93706

**REPORT OF
LABORATORY
ANALYSIS FOR
2,3,7,8-TCDD**

Report Summary:

This report contains results of one drinking water sample analyzed to determine 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613 by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

Report Information:

Pace Project #: 10246204
Sample Receipt Date: 10/17/2013
Client Project #: A3J0709
Client Sub PO #: N/A
State Cert #: 01155CA

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 Drinking Water Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Brittany Hansen, your Pace Project Manager.

This report has been reviewed by:

Brittany J. Hansen

October 31, 2013

Brittany Hansen, Project Manager
(612) 607-6429
(612) 607-6444 (fax)
brittany.hansen@pacelabs.com



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Mississippi	MN00064
Alaska	MN00064	Montana	92
Arizona	AZ0014	Nebraska	
Arkansas	88-0680	Nevada	MN_00064_200
California	01155CA	New Jersey (NE)	MN002
Colorado	MN00064	New Mexico	MN00064
Connecticut	PH-0256	New York (NEL)	11647
EPA Region 5	WD-15J	North Carolina	27700
EPA Region 8	8TMS-Q	North Dakota	R-036
Florida (NELAP)	E87605	Ohio	4150
Georgia (DNR)	959	Oklahoma	D9922
Guam	959	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL)	MN300001-001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennessee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	03086	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q

REPORT OF LABORATORY ANALYSIS

G-679

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

BSK

Analytical
Laboratories
Engineering Laboratories

SUBCONTRACT ORDER

A3J0709

1133

10246204

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical-Dioxin
1700 Elm Street S.E. Suite 200
Minneapolis, MN 55414
Phone: (612) 607-1700
Fax: (612) 607-6444
Turnaround (Days): Standard
QC Deliverables: I Std III IV

Sample ID	Samp Desc	Comments	Sample Date
A3J0709-01	Water Samples		10/05/2013 00:00:00

001


Matrix: Water

Analysis
EXT-Dioxin-DW matrix, EPA 1613 2,3,7,8-TCDD

ILAG

High salinity samples. Okay to run out of HT.

Handwritten notes and signatures at the bottom of the page.

	Document Name: Sample Condition Upon Receipt Form	Document Revised: 19Sep2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.07	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt Client Name: BSK Project #: **WO# : 10246204**

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Tracking Number: 7969 2819 3810



Custody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No Optional: Proj. Due Date: _____ Proj. Name: _____

Packing Material: Bubble Wrap Bubble Bags None Other: _____ Temp Blank? Yes No

Thermom. Used: 80512447 72337080 B88A912167504 B88A9132521491 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temp Read (°C): 3.6 Cooler Temp Corrected (°C): 3.4 Biological Tissue Frozen? Yes No

Temp should be above freezing to 6°C Correction Factor: -0.2 Date and Initials of Person Examining Contents: CB 10/17/13

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes Date/Time/ID/Analysis Matrix: <u>wt</u>		
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, Wt-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

CLIENT NOTIFICATION/RESOLUTION Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: [Signature] Date: 10-17-13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Drinking Water Analysis Results
2,3,7,8-TCDD -- USEPA Method 1613B

Tel: 612-607-1700
Fax: 612-607-6444

Sample ID.....A3J0709-01 Water Samples
Client..... BSK Analytical Laboratories
Lab Sample ID..... 10246204001

Date Collected.....10/05/2013
Date Received.....10/17/2013
Date Extracted.....10/25/2013

	Sample A3J0709-01 Water	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	ND	ND	--	--
RL	5.0 pg/L	5.0 pg/L	--	--
2,3,7,8-TCDD Recovery	--	--	91%	111%
Spike Recovery Limit	--	--	73-146%	73-146%
RPD			20.2%	
IS Recovery	51%	52%	53%	54%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	55%	56%	56%	59%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	R131026A_09	R131026A_06	R131026A_04	R131026A_05
Analysis Date	10/26/2013	10/26/2013	10/26/2013	10/26/2013
Analysis Time	20:41	18:57	17:48	18:25
Analyst	BAL	BAL	BAL	BAL
Volume	0.883L	0.999L	1.004L	0.994L
Dilution	NA	NA	NA	NA
ICAL Date	07/19/2013	07/19/2013	07/19/2013	07/19/2013
CCAL Filename	R131026A_03	R131026A_03	R131026A_03	R131026A_03

! = Outside the Control Limits

ND = Not Detected

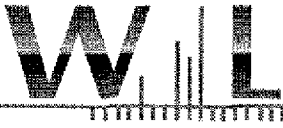
RL = Reporting Limit

Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A

RPD = Relative Percent Difference of Total Coliforms

G-683

Analyst: *Brian A. Lark*



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Certificate of Analysis

Report Date: 11/06/13 14:00
Received Date: 10/17/13 08:40
Turnaround Time: Normal

Project: A3J0709

Phones: (559) 497-2888
Fax: (559) 485-6935

P.O. #:

Attn: Michael Ng

Client: BSK Analytical Laboratories
 550 West Locust Avenue
 Fresno, CA 93650

Dear Michael Ng :

Enclosed are the results of analyses for samples received 10/17/2013 with the Chain of Custody document. The samples were received in good condition, at 1.0 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Lithium, Total	140	1.4	10	ug/l	1	EPA 200.7	11/4/13	11/5/13 10:25	W3K0097	
Iodide, Dissolved	ND	21	500	ug/l	50	EPA 9056A	11/5/13	11/5/13 19:57	W3K0192	M-05. G-14



Certificate of Analysis

Quality Control Section

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

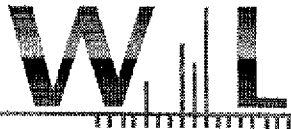
Batch W3K0192 - EPA 9056A

Blank (W3K0192-BLK1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Iodide, Dissolved		ND		ug/l						
LCS (W3K0192-BS1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Iodide, Dissolved		35.3		ug/l	40.0	88	85-115			
Matrix Spike (W3K0192-MS1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57				
Source: 3J15074-01					Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Iodide, Dissolved	179	368		ug/l	200	94	80-120			
Matrix Spike Dup (W3K0192-MSD1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57				
Source: 3J15074-01					Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Iodide, Dissolved	179	355		ug/l	200	88	80-120	3	20	

Metals by EPA 200 Series Methods - Quality Control

Batch W3K0097 - EPA 200.7

Blank (W3K0097-BLK1)					Prepared: 11/04/13	Analyzed: 11/05/13 10:15				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Lithium, Total		1.70		ug/l						
LCS (W3K0097-BS1)					Prepared: 11/04/13	Analyzed: 11/05/13 10:18				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Lithium, Total		988		ug/l	1000	99	85-115			
LCS Dup (W3K0097-BSD1)					Prepared: 11/04/13	Analyzed: 11/05/13 10:21				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Lithium, Total		992		ug/l	1000	99	85-115	0.3	30	
Duplicate (W3K0097-DUP1)					Prepared: 11/04/13	Analyzed: 11/05/13 10:28				
Source: 3J17013-01					Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Lithium, Total	144	134		ug/l				8	30	



Weck Laboratories, Inc.
Analytical Laboratory Service - Since 1964

Certificate of Analysis

Notes:

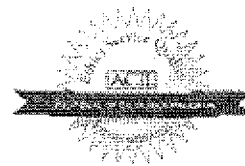
The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Kim G Tu (Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

- J Estimated conc. detected <MRL and >MDL.
- M-05 Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
- Q-14 This analysis was requested by the client after the holding time was exceeded.
- ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
- Sub Subcontracted analysis, original report enclosed.
- DL Method Detection Limit
- RL Method Reporting Limit
- MDA Minimum Detectable Activity
- NR Not Reportable



Weck Laboratories, Inc.

Environmental and Analytical Services - Since 1964

Sample Receipt Acknowledgement

WORK ORDER: 3J17013

Printed: 10/18/2013 12:31:18PM

Client: BSK Analytical Laboratories
Project: Metals

Project Manager: Kim G Tu
Project Number: A3J0709

Report To:

BSK Analytical Laboratories
Michael Ng
550 West Locust Avenue
Fresno, CA 93650
Phone: (559) 497-2888
Fax: (559) 485-6935

Invoice To:

BSK Analytical Laboratories
Accounts Payable - Anise Foote
550 West Locust Avenue
Fresno, CA 93650
Phone : (559) 497-2888
Fax: (559) 485-6935

Date Due: 10/31/13 15:00 (10 day TAT)

Received By: Lian Guang Liao
Logged In By: Jaime Gomez

Date Received: 10/17/13 08:40
Date Logged In: 10/17/13 11:00

Samples Received at:	1°C	All containers intact:	Yes	Chain of custody completed	Yes
Number of Ice chests/packages:	No	Custody seals present:		Sample labels & COC agree	Yes
Appropriate Sample Containers:		Custody seals intact:		Samples preserved properly	Yes
		Samples received on ice Custody Seals	No	Sample volume sufficient	Yes
				Sufficient holding time for all tests	Yes

Analysis	TAT	Expires	Comments
3J17013-01 A3J0709-01 [Water] Sampled 10/05/13 00:00 Pacific			
Iodide water 9056M	10	11/02/13 00:00	
200.7 Li_diss	10	04/03/14 00:00	

Comments:

10/18/2013

Authorized Signature

Date

Note:

If any of the information included in this sample receipt acknowledgement is incorrect (sample information, analysis, etc), please contact the lab at (626) 336-2139. Thank you.

BSK
 Analytical
 Laboratories
 Engineering Laboratories

SUBCONTRACT ORDER

A3J0709

3517013

SENDING LABORATORY:

BSK Associates
 1414 Stanislaus St
 Fresno, CA 93706
 Phone: 559-497-2888
 Fax: 559-485-6935
 Project Manager: Michael Ng
 E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Weck Laboratories, Inc.
 14859 E Clark Avenue
 City of Industry, CA 91745-1396
 Phone : (626) 336-2139
 Fax: (626) 336-2634
 Turnaround (Days): Standard
 QC Deliverables: I Std III IV

Sample ID	Samp Desc	Comments	Sample Date
A3J0709-01	Water Samples		10/05/2013 00:00
Matrix: Water			
	<u>Analysis</u>	<i>500ml/0</i>	High salinity samples. Okay to run out of HT.
	EXT-Iodide		Dissolved
	EXT-Miscellaneous		Lithium

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M. Ng BSK 10/1/13 1730/Amtrak
 Released By _____ Date _____ Received By _____ Date _____
Amtrak _____ Date _____ *Amtrak* 10/7/13 08:40
 Released By _____ Date _____ Received By _____ Date _____



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Travis Peterson
California American Water
836 Carmel Ave.
Monterey, CA 93940

RE: Report for A3J0790 Water Quality Analysis

Dear Travis Peterson,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 10/9/2013. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Michael Ng, Project Manager

If additional clarification of any information is required, please contact your Project Manager, Michael Ng, at (800) 877-8310 or (559) 497-2888 x118.



Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: California American Water Report To: Travis Peterson Project #: MPWSP Exploratory Boreholes #136410 Received: 10/09/2013 - 09:53 Report Due: 10/23/2013	Invoice To: California American Water Invoice Attn: Accounts Payable Project PO#: -
--	--

Sample Receipt Conditions

Cooler: Default Cooler Temperature on Receipt °C: 1.8	Containers Intact COC/Labels Agree Received On Wet Ice Packing Material - Other Sample(s) were received in temperature range. Initial receipt at BSK-FAL
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Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- B2.0 Analyte present in the method blank above the method detection limit (MDL). Laboratory does not determine batch acceptance on detections below the reporting limit (RL).
- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- DL1.0 Sample required a dilution due to the matrix or high concentration of a non-target analyte.
- HT1.6 Holding time exceeded. The holding time for this analysis is a recommendation and is not mandated by any state or federal agency.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- MS1.1 Matrix spike recovery exceeds upper control limit. Reported results for parent matrix may be biased high due to matrix interferences.
- MS1.2 Matrix spike recovery exceeds lower control limit. Reported results for parent matrix may be biased low due to matrix interferences.
- SR3.0 Surrogate recovery exceeds control limits. No material impact as spike recoveries are all within control ranges.
- X.0 Sample filtered prior to analysis

Report Distribution

Recipient(s)	Report Format
Travis Peterson	Final.rpt
Sarp Sekeroglu	Final.rpt

Certificate of Analysis

Sample ID: A3J0790-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-1 Zone #2 (90-100 ft bgs)

Sample Date - Time: 10/07/13 - 18:25
Matrix: Ground Water
Sample Type: Grab

Field Data: pH=7.24 Temp=16.8 °C Turb. =2.52 ntu

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Alkalinity as CaCO3	SM 2320 B	320	3.0	mg/L	1	A311948	10/09/13	10/09/13	X.0
Bicarbonate as CaCO3	SM 2320 B	320	3.0	mg/L	1	A311948	10/09/13	10/09/13	X.0
Carbonate as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A311948	10/09/13	10/09/13	X.0
Hydroxide as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A311948	10/09/13	10/09/13	X.0
Ammonia as N	SM 4500-NH3 G	7.5	0.10	mg/L	1	A312388	10/17/13	10/18/13	
Bromide	EPA 300.1	5.7	0.10	mg/L	20	A312060	10/11/13	10/11/13	X.0
Surrogate: Dichloroacetate	EPA 300.1	108 %	<i>Acceptable range: 90-115 %</i>			<i>Qualifiers - X.0</i>			
Chloride	EPA 300.0	1600	20	mg/L	20	A312048	10/11/13	10/11/13	X.0
Color, Apparent	SM 1210 B	30	1.0	CU	1	A311932	10/09/13 13:56	10/09/13	
Conductivity @ 25C	SM 2510 B	4900	1.0	umhos/cm	1	A311948	10/09/13	10/09/13	
Fluoride	SM 4500-F C	0.20	0.10	mg/L	1	A312667	10/23/13	10/23/13	
Mass Balance-Anions		51		meq/L					
Mass Balance-Dissolved Cations		50		meq/L					
MBAS, Calculated as LAS, mol wt 340	SM 5540 C	ND	0.050	mg/L	1	A311939	10/09/13 12:48	10/09/13	
Nitrate as NO3	EPA 300.0	ND	10	mg/L	10	A311979	10/09/13 18:14	10/09/13	DL1.0, X.0
Nitrite as N	EPA 300.0	ND	0.50	mg/L	10	A311979	10/09/13 18:14	10/09/13	DL1.0, X.0
Threshold Odor	SM 2150 B	50	1.0	T.O.N.	1	A311932	10/09/13 14:23	10/09/13	HT1.6
Orthophosphate as P	SM 4500-P E	0.16	0.050	mg/L	5	A311969	10/09/13 14:45	10/09/13	X.0
pH (1)	SM 4500-H+ B	7.8		pH Units	1	A311948	10/09/13	10/09/13	
pH Temperature in °C		21.3							
Phosphorus - Dissolved (1)	EPA 365.4	0.21	0.10	mg/L	1	A312089	10/11/13	10/16/13	
Sulfate as SO4	EPA 300.0	21	20	mg/L	10	A311979	10/09/13	10/09/13	X.0
Total Dissolved Solids	SM 2540C	3200	5.0	mg/L	1	A312067	10/11/13	10/16/13	
Total Kjeldahl Nitrogen - Dissolved (1)	EPA 351.2	8.1	1.0	mg/L	1	A312089	10/11/13	10/16/13	
Total Oxidizable Nitrogen, as N - Dissolved (1)	SM 4500-NO3 F	ND	0.10	mg/L	1	A312125	10/14/13	10/14/13	
Turbidity	SM 2130 B	19	0.50	NTU	5	A311932	10/09/13 13:56	10/09/13	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.7	0.15	0.050	mg/L	1	A312015	10/10/13	10/17/13	
Arsenic	EPA 200.8	ND	2.0	ug/L	1	A312015	10/10/13	10/18/13	
Barium - Dissolved (1)	EPA 200.7	0.27	0.050	mg/L	1	A312350	10/17/13	10/18/13	
Boron - Dissolved (1)	EPA 200.7	0.45	0.10	mg/L	1	A312350	10/17/13	10/18/13	
Calcium	EPA 200.7	180	0.10	mg/L	1	A312015	10/10/13	10/17/13	
Calcium - Dissolved (1)	EPA 200.7	180	0.10	mg/L	1	A312350	10/17/13	10/18/13	
Copper	EPA 200.8	ND	5.0	ug/L	1	A312015	10/10/13	10/18/13	
Hardness as CaCO3	SM 2340B	920	0.41	mg/L					
Iron	EPA 200.7	1.8	0.030	mg/L	1	A312015	10/10/13	10/17/13	
Iron - Dissolved (1)	EPA 200.7	ND	0.030	mg/L	1	A312350	10/17/13	10/18/13	

Certificate of Analysis

Sample ID: A3J0790-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-1 Zone #2 (90-100 ft bgs)

Sample Date - Time: 10/07/13 - 18:25
Matrix: Ground Water
Sample Type: Grab

Field Data: pH=7.24 Temp=16.8 °C Turb. =2.52 ntu

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Magnesium	EPA 200.7	110	0.10	mg/L	1	A312015	10/10/13	10/17/13	
Magnesium - Dissolved (1)	EPA 200.7	110	0.10	mg/L	1	A312350	10/17/13	10/18/13	
Manganese	EPA 200.7	0.79	0.010	mg/L	1	A312015	10/10/13	10/17/13	
Manganese - Dissolved (1)	EPA 200.7	0.79	0.010	mg/L	1	A312350	10/17/13	10/18/13	
Potassium - Dissolved (1)	EPA 200.7	31	2.0	mg/L	1	A312350	10/17/13	10/18/13	
Silica (SiO ₂) - Dissolved (1)	EPA 200.7	35	0.20	mg/L	1	A312350	10/17/13	10/18/13	
Sodium - Dissolved (1)	EPA 200.7	710	10	mg/L	10	A312350	10/17/13	10/19/13	
Strontium - Dissolved (1)	EPA 200.8	1600	1.0	ug/L	1	A312350	10/17/13	10/21/13	
Zinc	EPA 200.7	ND	0.050	mg/L	1	A312015	10/10/13	10/17/13	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A312133	10/14/13	10/16/13	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A312133	10/14/13	10/16/13	
Surrogate: TCMX	EPA 504.1	79 %	<i>Acceptable range: 70-130 %</i>						
<u>Organohalide Pesticides and PCBs by GC-ECD</u>									
Aldrin	EPA 505	ND	0.075	ug/L	1	A312133	10/14/13	10/16/13	
Chlordane	EPA 505	ND	0.10	ug/L	1	A312133	10/14/13	10/16/13	
Chlorothalonil	EPA 505	ND	5.0	ug/L	1	A312133	10/14/13	10/16/13	
Dieldrin	EPA 505	ND	0.020	ug/L	1	A312133	10/14/13	10/16/13	
Endrin	EPA 505	ND	0.10	ug/L	1	A312133	10/14/13	10/16/13	
Heptachlor	EPA 505	ND	0.010	ug/L	1	A312133	10/14/13	10/16/13	
Heptachlor Epoxide	EPA 505	ND	0.010	ug/L	1	A312133	10/14/13	10/16/13	
Hexachlorobenzene	EPA 505	ND	0.50	ug/L	1	A312133	10/14/13	10/16/13	
Hexachlorocyclopentadiene	EPA 505	ND	1.0	ug/L	1	A312133	10/14/13	10/16/13	
Lindane	EPA 505	ND	0.20	ug/L	1	A312133	10/14/13	10/16/13	
Methoxychlor	EPA 505	ND	10	ug/L	1	A312133	10/14/13	10/16/13	
PCB Aroclor Screen	EPA 505	ND	0.50	ug/L	1	A312133	10/14/13	10/16/13	
Toxaphene	EPA 505	ND	1.0	ug/L	1	A312133	10/14/13	10/16/13	
Trifluralin	EPA 505	ND	1.0	ug/L	1	A312133	10/14/13	10/16/13	
Surrogate: TCMX	EPA 505	79 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A311994	10/09/13	10/11/13	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A311994	10/09/13	10/11/13	
2,4-D	EPA 515.3	ND	10	ug/L	1	A311994	10/09/13	10/11/13	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A311994	10/09/13	10/11/13	
Dalapon	EPA 515.3	ND	10	ug/L	1	A311994	10/09/13	10/11/13	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A311994	10/09/13	10/11/13	

Certificate of Analysis

Sample ID: A3J0790-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-1 Zone #2 (90-100 ft bgs)

Sample Date - Time: 10/07/13 - 18:25
Matrix: Ground Water
Sample Type: Grab

Field Data: pH=7.24 Temp=16.8 °C Turb. =2.52 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chlorinated Acid Herbicides by GC-ECD									
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A311994	10/09/13	10/11/13	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A311994	10/09/13	10/11/13	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A311994	10/09/13	10/11/13	
Surrogate: DCPAA	EPA 515.3	82 %	<i>Acceptable range: 70-130 %</i>						
Volatile Organics by GC-MS									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A312121	10/14/13	10/14/13	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A312121	10/14/13	10/14/13	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A312121	10/14/13	10/14/13	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A312121	10/14/13	10/14/13	
Acetone	EPA 524.2	ND	10	ug/L	1	A312121	10/14/13	10/14/13	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	BS1.0
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	

Certificate of Analysis

Sample ID: A3J0790-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-1 Zone #2 (90-100 ft bgs)

Sample Date - Time: 10/07/13 - 18:25
Matrix: Ground Water
Sample Type: Grab

Field Data: pH=7.24 Temp=16.8 °C Turb. =2.52 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A312121	10/14/13	10/14/13	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A312121	10/14/13	10/14/13	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A312121	10/14/13	10/14/13	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A312121	10/14/13	10/14/13	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A312121	10/14/13	10/14/13	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	95 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	99 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A312014	10/10/13	10/13/13	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A312014	10/10/13	10/13/13	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A312014	10/10/13	10/13/13	

Certificate of Analysis

Sample ID: A3J0790-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-1 Zone #2 (90-100 ft bgs)

Sample Date - Time: 10/07/13 - 18:25
Matrix: Ground Water
Sample Type: Grab

Field Data: pH=7.24 Temp=16.8 °C Turb. =2.52 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Semi-Volatile Organics by GC-MS</u>									
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A312014	10/10/13	10/13/13	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A312014	10/10/13	10/13/13	
Bromacil	EPA 525.2	ND	10	ug/L	1	A312014	10/10/13	10/13/13	
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A312014	10/10/13	10/13/13	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A312014	10/10/13	10/13/13	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A312014	10/10/13	10/13/13	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A312014	10/10/13	10/13/13	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A312014	10/10/13	10/13/13	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A312014	10/10/13	10/13/13	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A312014	10/10/13	10/13/13	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A312014	10/10/13	10/13/13	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A312014	10/10/13	10/13/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	108 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A312119	10/12/13	10/12/13	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A312119	10/12/13	10/12/13	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A312119	10/12/13	10/12/13	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A312119	10/12/13	10/12/13	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A312119	10/12/13	10/12/13	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A312119	10/12/13	10/12/13	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A312119	10/12/13	10/12/13	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A312119	10/12/13	10/12/13	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A312197	10/15/13	10/15/13	
Surrogate: AMPA	EPA 547	103 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A312182	10/14/13	10/15/13	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A312161	10/14/13	10/16/13	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A311979

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: EMH

Blank (A311979-BLK1)

Nitrate as NO3	ND	1.0	mg/L							10/09/13	
Nitrite as N	ND	0.050	mg/L							10/09/13	
Sulfate as SO4	ND	2.0	mg/L							10/09/13	

Blank Spike (A311979-BS1)

Nitrate as NO3	50	1.0	mg/L	50		101	90-110			10/09/13	
Nitrite as N	0.55	0.050	mg/L	0.50		110	90-110			10/09/13	
Sulfate as SO4	50	2.0	mg/L	50		101	90-110			10/09/13	

Blank Spike Dup (A311979-BSD1)

Nitrate as NO3	50	1.0	mg/L	50		100	90-110	0	20	10/09/13	
Nitrite as N	0.55	0.050	mg/L	0.50		110	90-110	0	20	10/09/13	
Sulfate as SO4	50	2.0	mg/L	50		101	90-110	0	20	10/09/13	

Matrix Spike (A311979-MS1), Source: A3J0776-01

Nitrate as NO3	120	2.0	mg/L	100	20	104	80-120			10/09/13	
Nitrite as N	1.1	0.10	mg/L	1.0	ND	106	80-120			10/09/13	
Sulfate as SO4	110	4.0	mg/L	100	10	104	80-120			10/09/13	

Matrix Spike (A311979-MS2), Source: A3J0776-02

Nitrate as NO3	130	2.0	mg/L	100	26	100	80-120			10/09/13	
Nitrite as N	1.0	0.10	mg/L	1.0	ND	103	80-120			10/09/13	
Sulfate as SO4	110	4.0	mg/L	100	11	101	80-120			10/09/13	

Matrix Spike Dup (A311979-MSD1), Source: A3J0776-01

Nitrate as NO3	130	2.0	mg/L	100	20	106	80-120	2	20	10/09/13	
Nitrite as N	1.1	0.10	mg/L	1.0	ND	110	80-120	4	20	10/09/13	
Sulfate as SO4	120	4.0	mg/L	100	10	106	80-120	2	20	10/09/13	

Matrix Spike Dup (A311979-MSD2), Source: A3J0776-02

Nitrate as NO3	130	2.0	mg/L	100	26	104	80-120	3	20	10/09/13	
Nitrite as N	1.1	0.10	mg/L	1.0	ND	107	80-120	4	20	10/09/13	
Sulfate as SO4	120	4.0	mg/L	100	11	104	80-120	3	20	10/09/13	

EPA 300.0 - Quality Control

Batch: A312048

Prepared: 10/10/2013

Prep Method: Method Specific Preparation

Analyst: EMH

Blank (A312048-BLK1)

Chloride	ND	1.0	mg/L							10/10/13	
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Blank Spike (A312048-BS1)

Chloride	51	1.0	mg/L	50		102	90-110			10/10/13	
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Blank Spike Dup (A312048-BSD1)

Chloride	51	1.0	mg/L	50		102	90-110	0	20	10/10/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A312048

Prepared: 10/10/2013

Prep Method: Method Specific Preparation

Analyst: EMH

Matrix Spike (A312048-MS1), Source: A3J0932-02

Chloride	110	2.0	mg/L	100	9.4	100	80-120			10/10/13	
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Matrix Spike (A312048-MS2), Source: A3J0645-06

Chloride	190	2.0	mg/L	100	90	101	80-120			10/11/13	
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Matrix Spike Dup (A312048-MSD1), Source: A3J0932-02

Chloride	110	2.0	mg/L	100	9.4	100	80-120	1	20	10/11/13	
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Matrix Spike Dup (A312048-MSD2), Source: A3J0645-06

Chloride	190	2.0	mg/L	100	90	102	80-120	1	20	10/11/13	
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EPA 300.1 - Quality Control

Batch: A312060

Prepared: 10/11/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A312060-BLK1)

Bromide	ND	0.0050	mg/L							10/11/13	
Surrogate: Dichloroacetate	0.555			0.50		111	90-115			10/11/13	

Blank Spike (A312060-BS1)

Bromide	0.21	0.0050	mg/L	0.20		103	85-115			10/11/13	
Surrogate: Dichloroacetate	0.555			0.50		111	90-115			10/11/13	

Blank Spike Dup (A312060-BSD1)

Bromide	0.20	0.0050	mg/L	0.20		100	85-115	2	10	10/11/13	
Surrogate: Dichloroacetate	0.554			0.50		111	90-115			10/11/13	

Matrix Spike (A312060-MS1), Source: A3J0905-01

Bromide	0.50	0.020	mg/L	0.40	0.064	108	75-125			10/11/13	
Surrogate: Dichloroacetate	2.32			2.0		116	90-115			10/11/13	SR3.0

Matrix Spike Dup (A312060-MSD1), Source: A3J0905-01

Bromide	0.47	0.020	mg/L	0.40	0.064	101	75-125	6	10	10/11/13	
Surrogate: Dichloroacetate	2.22			2.0		111	90-115			10/11/13	

EPA 351.2 - Quality Control

Batch: A312089

Prepared: 10/11/2013

Prep Method: Digestion

Analyst: LJL

Blank (A312089-BLK1)

Total Kjeldahl Nitrogen - Dissolved (1)	ND	1.0	mg/L							10/16/13	
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Blank Spike (A312089-BS1)

Total Kjeldahl Nitrogen - Dissolved (1)	10	1.0	mg/L	10		103	90-110			10/16/13	
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Blank Spike Dup (A312089-BSD1)

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 351.2 - Quality Control

Batch: A312089

Prepared: 10/11/2013

Prep Method: Digestion

Analyst: LJL

Blank Spike Dup (A312089-BSD1)

Total Kjeldahl Nitrogen - Dissolved (1)	11	1.0	mg/L	10		106	90-110	2	10	10/16/13	
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Matrix Spike (A312089-MS1), Source: A3J0687-08

Total Kjeldahl Nitrogen - Dissolved (1)	11	1.0	mg/L	10	ND	111	90-110			10/16/13	MS1.0 High
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Matrix Spike (A312089-MS2), Source: A3J0782-04

Total Kjeldahl Nitrogen - Dissolved (1)	14	1.0	mg/L	10	ND	138	90-110			10/16/13	MS1.0 High
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Matrix Spike Dup (A312089-MSD1), Source: A3J0687-08

Total Kjeldahl Nitrogen - Dissolved (1)	9.5	1.0	mg/L	10	ND	95	90-110	15	10	10/16/13	MS1.0
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Matrix Spike Dup (A312089-MSD2), Source: A3J0782-04

Total Kjeldahl Nitrogen - Dissolved (1)	13	1.0	mg/L	10	ND	130	90-110	6	10	10/16/13	MS1.0 High
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EPA 365.4 - Quality Control

Batch: A312089

Prepared: 10/11/2013

Prep Method: Digestion

Analyst: LJL

Blank (A312089-BLK1)

Phosphorus - Dissolved (1)	ND	0.10	mg/L							10/16/13	
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Blank Spike (A312089-BS1)

Phosphorus - Dissolved (1)	9.4	0.10	mg/L	10		94	90-110			10/16/13	
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Blank Spike Dup (A312089-BSD1)

Phosphorus - Dissolved (1)	9.1	0.10	mg/L	10		91	90-110	3	10	10/16/13	
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Matrix Spike (A312089-MS1), Source: A3J0687-08

Phosphorus - Dissolved (1)	9.3	0.10	mg/L	10	0.16	92	90-110			10/16/13	
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Matrix Spike (A312089-MS2), Source: A3J0782-04

Phosphorus - Dissolved (1)	10	0.10	mg/L	10	0.11	100	90-110			10/16/13	
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Matrix Spike Dup (A312089-MSD1), Source: A3J0687-08

Phosphorus - Dissolved (1)	9.4	0.10	mg/L	10	0.16	92	90-110	1	10	10/16/13	
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Matrix Spike Dup (A312089-MSD2), Source: A3J0782-04

Phosphorus - Dissolved (1)	9.7	0.10	mg/L	10	0.11	96	90-110	4	10	10/16/13	
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SM 2120 B - Quality Control

Batch: A311932

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311932-BLK1)

Color, Apparent	ND	1.0	CU							10/09/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2120 B - Quality Control

Batch: A311932

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Duplicate (A311932-DUP1), Source: A3J0722-01

Color, Apparent	35	1.0	CU		35			0	20	10/09/13	
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Duplicate (A311932-DUP2), Source: A3J0851-02

Color, Apparent	40	1.0	CU		40			0	20	10/09/13	
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SM 2130 B - Quality Control

Batch: A311932

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311932-BLK1)

Turbidity	ND	0.10	NTU							10/09/13	
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Duplicate (A311932-DUP1), Source: A3J0722-01

Turbidity	2.6	0.10	NTU		2.5			3	20	10/09/13	
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Duplicate (A311932-DUP2), Source: A3J0851-02

Turbidity	9.6	0.20	NTU		9.7			1	20	10/09/13	
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SM 2150 B - Quality Control

Batch: A311932

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311932-BLK1)

Threshold Odor	ND	1.0	T.O.N.							10/09/13	
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Duplicate (A311932-DUP1), Source: A3J0722-01

Threshold Odor	4.0	1.0	T.O.N.		4.0			0	20	10/09/13	
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Duplicate (A311932-DUP2), Source: A3J0851-02

Threshold Odor	10	1.0	T.O.N.		10			0	20	10/09/13	
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SM 2320 B - Quality Control

Batch: A311948

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A311948-BLK1)

Alkalinity as CaCO3	ND	3.0	mg/L							10/09/13	
Bicarbonate as CaCO3	ND	3.0	mg/L							10/09/13	
Carbonate as CaCO3	ND	3.0	mg/L							10/09/13	
Hydroxide as CaCO3	ND	3.0	mg/L							10/09/13	

Blank Spike (A311948-BS1)

Alkalinity as CaCO3	100	3.0	mg/L	100		103	80-120			10/09/13	
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Blank Spike Dup (A311948-BSD1)

Alkalinity as CaCO3	100	3.0	mg/L	100		103	80-120	0	20	10/09/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2320 B - Quality Control

Batch: A311948

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Duplicate (A311948-DUP1), Source: A3J0790-01

Alkalinity as CaCO3	320	3.0	mg/L		320			0	10	10/09/13	
Bicarbonate as CaCO3	320	3.0	mg/L		320			0	10	10/09/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	10/09/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	10/09/13	

Duplicate (A311948-DUP2), Source: A3J0851-02

Alkalinity as CaCO3	15	3.0	mg/L		15			0	10	10/09/13	
Bicarbonate as CaCO3	15	3.0	mg/L		15			0	10	10/09/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	10/09/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	10/09/13	

SM 2510 B - Quality Control

Batch: A311948

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A311948-BLK1)

Conductivity @ 25C	ND	1.0	umhos/cm							10/09/13	
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Duplicate (A311948-DUP1), Source: A3J0790-01

Conductivity @ 25C	4800	1.0	umhos/cm		4900			0	20	10/09/13	
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Duplicate (A311948-DUP2), Source: A3J0851-02

Conductivity @ 25C	45	1.0	umhos/cm		45			0	20	10/09/13	
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SM 2540C - Quality Control

Batch: A312067

Prepared: 10/11/2013

Prep Method: Method Specific Preparation

Analyst: DEH

Blank (A312067-BLK1)

Total Dissolved Solids	ND	5.0	mg/L							10/16/13	
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Blank Spike (A312067-BS1)

Total Dissolved Solids	1000	5.0	mg/L	1000		100	70-130			10/16/13	
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SM 4500-F C - Quality Control

Batch: A312667

Prepared: 10/23/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A312667-BLK1)

Fluoride	ND	0.10	mg/L							10/23/13	
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Blank Spike (A312667-BS1)

Fluoride	1.0	0.10	mg/L	1.0		100	90-110			10/23/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-F C - Quality Control

Batch: A312667

Prepared: 10/23/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank Spike Dup (A312667-BSD1)

Fluoride	1.0	0.10	mg/L	1.0		101	90-110	1	20	10/23/13	
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Matrix Spike (A312667-MS1), Source: A3J1329-01

Fluoride	1.1	0.10	mg/L	1.0	ND	100	80-120			10/23/13	
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Matrix Spike Dup (A312667-MSD1), Source: A3J1329-01

Fluoride	1.1	0.10	mg/L	1.0	ND	100	80-120	0	20	10/23/13	
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SM 4500-H+ B - Quality Control

Batch: A311948

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Duplicate (A311948-DUP1), Source: A3J0790-01

pH (1)	7.8		pH Units		7.8			0	20	10/09/13	
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Duplicate (A311948-DUP2), Source: A3J0851-02

pH (1)	6.9		pH Units		6.9			0	20	10/09/13	
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SM 4500-NH3 G - Quality Control

Batch: A312388

Prepared: 10/17/2013

Prep Method: Ammonia Distillation

Analyst: LJL

Blank (A312388-BLK1)

Ammonia as N	ND	0.10	mg/L							10/18/13	B2.0
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Blank Spike (A312388-BS1)

Ammonia as N	10	0.10	mg/L	10		100	80-120			10/18/13	
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Blank Spike Dup (A312388-BSD1)

Ammonia as N	10	0.10	mg/L	10		101	80-120	1	20	10/18/13	
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Matrix Spike (A312388-MS1), Source: A3J0794-01

Ammonia as N	9.9	0.10	mg/L	10	0.22	97	80-120			10/18/13	
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Matrix Spike (A312388-MS2), Source: A3J0828-02

Ammonia as N	49	0.50	mg/L	10	38	112	80-120			10/18/13	
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Matrix Spike Dup (A312388-MSD1), Source: A3J0794-01

Ammonia as N	9.8	0.10	mg/L	10	0.22	96	80-120	2	20	10/18/13	
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Matrix Spike Dup (A312388-MSD2), Source: A3J0828-02

Ammonia as N	46	0.50	mg/L	10	38	82	80-120	6	20	10/18/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-NO3 F - Quality Control

Batch: A312125

Prepared: 10/14/2013

Prep Method: Method Specific Preparation

Analyst: LJL

Blank (A312125-BLK2)

Total Oxidizable Nitrogen, as N - Dissolved (1) ND 0.10 mg/L 10/14/13

Blank Spike (A312125-BS1)

Total Oxidizable Nitrogen, as N - Dissolved (1) 9.8 0.10 mg/L 10 98 80-120 10/14/13

Blank Spike Dup (A312125-BSD1)

Total Oxidizable Nitrogen, as N - Dissolved (1) 10 0.10 mg/L 10 101 80-120 2 20 10/14/13

Matrix Spike (A312125-MS2), Source: A3J0790-01

Total Oxidizable Nitrogen, as N - Dissolved (1) 8.8 0.10 mg/L 10 ND 88 80-120 10/14/13

Matrix Spike Dup (A312125-MSD2), Source: A3J0790-01

Total Oxidizable Nitrogen, as N - Dissolved (1) 9.1 0.10 mg/L 10 ND 91 80-120 3 20 10/14/13

SM 4500-P E - Quality Control

Batch: A311969

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: LJL

Blank (A311969-BLK1)

Orthophosphate as P ND 0.010 mg/L 10/09/13

Blank Spike (A311969-BS1)

Orthophosphate as P 0.25 0.010 mg/L 0.25 100 90-110 10/09/13

Blank Spike Dup (A311969-BSD1)

Orthophosphate as P 0.25 0.010 mg/L 0.25 102 90-110 1 20 10/09/13

Matrix Spike (A311969-MS1), Source: A3J0790-01

Orthophosphate as P 1.4 0.050 mg/L 1.2 0.16 98 80-120 10/09/13

Matrix Spike Dup (A311969-MSD1), Source: A3J0790-01

Orthophosphate as P 1.4 0.050 mg/L 1.2 0.16 99 80-120 1 20 10/09/13

SM 5540 C - Quality Control

Batch: A311939

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311939-BLK1)

MBAS, Calculated as LAS, mol wt 340 ND 0.050 mg/L 10/09/13

Blank Spike (A311939-BS1)

MBAS, Calculated as LAS, mol wt 340 0.94 0.050 mg/L 1.0 94 80-120 10/09/13

Blank Spike Dup (A311939-BSD1)

MBAS, Calculated as LAS, mol wt 340 0.95 0.050 mg/L 1.0 95 80-120 2 20 10/09/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 5540 C - Quality Control

Batch: A311939

Prepared: 10/9/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Matrix Spike (A311939-MS1), Source: A3J0748-01

MBAS, Calculated as LAS, mol wt 340 0.80 0.050 mg/L 1.0 ND 79 80-120 10/09/13 MS1.0 **Low**

Matrix Spike (A311939-MS2), Source: A3J0790-01

MBAS, Calculated as LAS, mol wt 340 0.99 0.050 mg/L 1.0 ND 98 80-120 10/09/13

Matrix Spike Dup (A311939-MSD1), Source: A3J0748-01

MBAS, Calculated as LAS, mol wt 340 0.83 0.050 mg/L 1.0 ND 82 80-120 4 20 10/09/13

Matrix Spike Dup (A311939-MSD2), Source: A3J0790-01

MBAS, Calculated as LAS, mol wt 340 0.99 0.050 mg/L 1.0 ND 98 80-120 0 20 10/09/13

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A312015

Prepared: 10/10/2013

Prep Method: EPA 200.2

Analyst: NRE

Blank (A312015-BLK2)

Aluminum	ND	0.050	mg/L							10/17/13	
Calcium	ND	0.10	mg/L							10/17/13	
Iron	ND	0.030	mg/L							10/17/13	
Magnesium	ND	0.10	mg/L							10/17/13	
Manganese	ND	0.010	mg/L							10/17/13	
Zinc	ND	0.050	mg/L							10/17/13	

Blank Spike (A312015-BS2)

Aluminum	0.20	0.050	mg/L	0.20		100	85-115			10/17/13	
Calcium	10	0.10	mg/L	10		101	85-115			10/17/13	
Iron	2.0	0.030	mg/L	2.0		101	85-115			10/17/13	
Magnesium	9.9	0.10	mg/L	10		99	85-115			10/17/13	
Manganese	0.20	0.010	mg/L	0.20		100	85-115			10/17/13	
Zinc	0.20	0.050	mg/L	0.20		102	85-115			10/17/13	

Blank Spike Dup (A312015-BSD2)

Aluminum	0.21	0.050	mg/L	0.20		103	85-115	3	20	10/17/13	
Calcium	10	0.10	mg/L	10		101	85-115	0	20	10/17/13	
Iron	2.0	0.030	mg/L	2.0		101	85-115	0	20	10/17/13	
Magnesium	9.9	0.10	mg/L	10		99	85-115	0	20	10/17/13	
Manganese	0.20	0.010	mg/L	0.20		100	85-115	0	20	10/17/13	
Zinc	0.20	0.050	mg/L	0.20		102	85-115	0	20	10/17/13	

Matrix Spike (A312015-MS3), Source: A3J0790-01

Aluminum	0.41	0.050	mg/L	0.20	0.15	130	70-130			10/17/13	
Calcium	190	0.10	mg/L	10	180	109	70-130			10/17/13	
Iron	3.9	0.030	mg/L	2.0	1.8	104	70-130			10/17/13	
Magnesium	120	0.10	mg/L	10	110	104	70-130			10/17/13	
Manganese	0.99	0.010	mg/L	0.20	0.79	98	70-130			10/17/13	
Zinc	0.21	0.050	mg/L	0.20	ND	106	70-130			10/17/13	

Matrix Spike (A312015-MS4), Source: A3J0794-07

Aluminum	0.20	0.050	mg/L	0.20	ND	101	70-130			10/17/13	
Calcium	150	0.10	mg/L	10	140	110	70-130			10/17/13	
Iron	2.0	0.030	mg/L	2.0	ND	101	70-130			10/17/13	
Magnesium	27	0.10	mg/L	10	17	98	70-130			10/17/13	
Manganese	0.20	0.010	mg/L	0.20	ND	99	70-130			10/17/13	
Zinc	0.20	0.050	mg/L	0.20	ND	98	70-130			10/17/13	

Matrix Spike Dup (A312015-MSD3), Source: A3J0790-01

Aluminum	0.42	0.050	mg/L	0.20	0.15	133	70-130	1	20	10/17/13	MS1.1 High
Calcium	190	0.10	mg/L	10	180	71	70-130	2	20	10/17/13	
Iron	3.8	0.030	mg/L	2.0	1.8	99	70-130	3	20	10/17/13	
Magnesium	120	0.10	mg/L	10	110	82	70-130	2	20	10/17/13	
Manganese	0.97	0.010	mg/L	0.20	0.79	89	70-130	2	20	10/17/13	
Zinc	0.21	0.050	mg/L	0.20	ND	104	70-130	2	20	10/17/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A312015

Prepared: 10/10/2013

Prep Method: EPA 200.2

Analyst: NRE

Matrix Spike Dup (A312015-MSD4), Source: A3J0794-07

Aluminum	0.20	0.050	mg/L	0.20	ND	99	70-130	3	20	10/17/13	
Calcium	150	0.10	mg/L	10	140	106	70-130	0	20	10/17/13	
Iron	2.0	0.030	mg/L	2.0	ND	101	70-130	1	20	10/17/13	
Magnesium	27	0.10	mg/L	10	17	98	70-130	0	20	10/17/13	
Manganese	0.20	0.010	mg/L	0.20	ND	100	70-130	0	20	10/17/13	
Zinc	0.20	0.050	mg/L	0.20	ND	98	70-130	0	20	10/17/13	

EPA 200.7 - Quality Control

Batch: A312350

Prepared: 10/17/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A312350-BLK2)

Barium - Dissolved (1)	ND	0.050	mg/L							10/18/13	
Boron - Dissolved (1)	ND	0.10	mg/L							10/18/13	
Calcium - Dissolved (1)	ND	0.10	mg/L							10/18/13	
Iron - Dissolved (1)	ND	0.030	mg/L							10/18/13	
Magnesium - Dissolved (1)	ND	0.10	mg/L							10/18/13	
Manganese - Dissolved (1)	ND	0.010	mg/L							10/18/13	
Potassium - Dissolved (1)	ND	2.0	mg/L							10/18/13	
Silica (SiO2) - Dissolved (1)	ND	0.20	mg/L							10/18/13	
Sodium - Dissolved (1)	ND	1.0	mg/L							10/18/13	

Blank Spike (A312350-BS2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		100	85-115			10/18/13	
Boron - Dissolved (1)	0.59	0.10	mg/L	0.60		99	85-115			10/18/13	
Calcium - Dissolved (1)	9.9	0.10	mg/L	10		99	85-115			10/18/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		101	85-115			10/18/13	
Magnesium - Dissolved (1)	9.8	0.10	mg/L	10		98	85-115			10/18/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20		98	85-115			10/18/13	
Potassium - Dissolved (1)	9.9	2.0	mg/L	10		99	85-115			10/18/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		104	85-115			10/18/13	
Sodium - Dissolved (1)	10	1.0	mg/L	10		101	85-115			10/18/13	

Blank Spike Dup (A312350-BSD2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		100	85-115	1	20	10/18/13	
Boron - Dissolved (1)	0.60	0.10	mg/L	0.60		100	85-115	1	20	10/18/13	
Calcium - Dissolved (1)	9.9	0.10	mg/L	10		99	85-115	0	20	10/18/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		101	85-115	0	20	10/18/13	
Magnesium - Dissolved (1)	9.8	0.10	mg/L	10		98	85-115	0	20	10/18/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20		98	85-115	0	20	10/18/13	
Potassium - Dissolved (1)	9.8	2.0	mg/L	10		98	85-115	1	20	10/18/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		104	85-115	1	20	10/18/13	
Sodium - Dissolved (1)	10	1.0	mg/L	10		100	85-115	1	20	10/18/13	

Matrix Spike (A312350-MS3), Source: A3J0909-02

Barium - Dissolved (1)	0.61	0.050	mg/L	0.20	0.44	87	70-130			10/18/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: **A312350**

Prepared: 10/17/2013

Prep Method: **Filtration - Metals**

Analyst: **NRE**

Matrix Spike (A312350-MS3), Source: A3J0909-02

Boron - Dissolved (1)	0.62	0.10	mg/L	0.60	ND	103	70-130			10/18/13	
Calcium - Dissolved (1)	74	0.10	mg/L	10	66	75	70-130			10/18/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0	ND	99	70-130			10/18/13	
Magnesium - Dissolved (1)	36	0.10	mg/L	10	27	89	70-130			10/18/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20	ND	96	70-130			10/18/13	
Potassium - Dissolved (1)	13	2.0	mg/L	10	3.8	95	70-130			10/18/13	
Silica (SiO2) - Dissolved (1)	57	0.20	mg/L	2.1	57	15	70-130			10/18/13	MS1.2 Low
Sodium - Dissolved (1)	49	1.0	mg/L	10	40	94	70-130			10/18/13	

Matrix Spike (A312350-MS4), Source: A3J1148-01

Barium - Dissolved (1)	0.23	0.050	mg/L	0.20	ND	96	70-130			10/18/13	
Boron - Dissolved (1)	0.62	0.10	mg/L	0.60	ND	104	70-130			10/18/13	
Calcium - Dissolved (1)	73	0.10	mg/L	10	65	76	70-130			10/18/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0	ND	98	70-130			10/18/13	
Magnesium - Dissolved (1)	20	0.10	mg/L	10	10	93	70-130			10/18/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20	ND	95	70-130			10/18/13	
Potassium - Dissolved (1)	13	2.0	mg/L	10	3.3	94	70-130			10/18/13	
Silica (SiO2) - Dissolved (1)	37	0.20	mg/L	2.1	35	68	70-130			10/18/13	MS1.2 Low
Sodium - Dissolved (1)	54	1.0	mg/L	10	45	88	70-130			10/18/13	

Matrix Spike Dup (A312350-MSD3), Source: A3J0909-02

Barium - Dissolved (1)	0.63	0.050	mg/L	0.20	0.44	95	70-130	2	20	10/18/13	
Boron - Dissolved (1)	0.61	0.10	mg/L	0.60	ND	102	70-130	1	20	10/18/13	
Calcium - Dissolved (1)	75	0.10	mg/L	10	66	86	70-130	2	20	10/18/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0	ND	98	70-130	1	20	10/18/13	
Magnesium - Dissolved (1)	36	0.10	mg/L	10	27	95	70-130	1	20	10/18/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20	ND	95	70-130	1	20	10/18/13	
Potassium - Dissolved (1)	13	2.0	mg/L	10	3.8	96	70-130	1	20	10/18/13	
Silica (SiO2) - Dissolved (1)	59	0.20	mg/L	2.1	57	75	70-130	2	20	10/18/13	
Sodium - Dissolved (1)	49	1.0	mg/L	10	40	95	70-130	0	20	10/18/13	

Matrix Spike Dup (A312350-MSD4), Source: A3J1148-01

Barium - Dissolved (1)	0.23	0.050	mg/L	0.20	ND	99	70-130	3	20	10/18/13	
Boron - Dissolved (1)	0.64	0.10	mg/L	0.60	ND	107	70-130	3	20	10/18/13	
Calcium - Dissolved (1)	75	0.10	mg/L	10	65	100	70-130	3	20	10/18/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0	ND	100	70-130	2	20	10/18/13	
Magnesium - Dissolved (1)	20	0.10	mg/L	10	10	97	70-130	2	20	10/18/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20	ND	97	70-130	2	20	10/18/13	
Potassium - Dissolved (1)	13	2.0	mg/L	10	3.3	97	70-130	3	20	10/18/13	
Silica (SiO2) - Dissolved (1)	38	0.20	mg/L	2.1	35	123	70-130	3	20	10/18/13	
Sodium - Dissolved (1)	55	1.0	mg/L	10	45	101	70-130	2	20	10/18/13	

EPA 200.8 - Quality Control

Batch: **A312015**

Prepared: 10/10/2013

Prep Method: **EPA 200.2**

Analyst: **MAS**

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.8 - Quality Control

Batch: A312015

Prepared: 10/10/2013

Prep Method: EPA 200.2

Analyst: MAS

Blank (A312015-BLK1)

Arsenic	ND	2.0	ug/L							10/18/13	
Copper	ND	5.0	ug/L							10/18/13	

Blank Spike (A312015-BS1)

Arsenic	200	2.0	ug/L	200		100	85-115			10/18/13	
Copper	200	5.0	ug/L	200		98	85-115			10/18/13	

Blank Spike Dup (A312015-BSD1)

Arsenic	200	2.0	ug/L	200		100	85-115	0	20	10/18/13	
Copper	200	5.0	ug/L	200		98	85-115	0	20	10/18/13	

Matrix Spike (A312015-MS1), Source: A3J0790-01

Arsenic	200	2.0	ug/L	200	ND	99	70-130			10/18/13	
Copper	180	5.0	ug/L	200	ND	89	70-130			10/18/13	

Matrix Spike (A312015-MS2), Source: A3J0794-07

Arsenic	200	2.0	ug/L	200	ND	101	70-130			10/18/13	
Copper	180	5.0	ug/L	200	ND	91	70-130			10/18/13	

Matrix Spike Dup (A312015-MSD1), Source: A3J0790-01

Arsenic	190	2.0	ug/L	200	ND	97	70-130	2	20	10/18/13	
Copper	180	5.0	ug/L	200	ND	87	70-130	3	20	10/18/13	

Matrix Spike Dup (A312015-MSD2), Source: A3J0794-07

Arsenic	210	2.0	ug/L	200	ND	102	70-130	2	20	10/18/13	
Copper	190	5.0	ug/L	200	ND	95	70-130	4	20	10/18/13	

EPA 200.8 - Quality Control

Batch: A312350

Prepared: 10/17/2013

Prep Method: Filtration - Metals

Analyst: MAS

Blank (A312350-BLK1)

Strontium - Dissolved (1)	ND	1.0	ug/L							10/21/13	
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Blank Spike (A312350-BS1)

Strontium - Dissolved (1)	200	1.0	ug/L	200		102	85-115			10/21/13	
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Blank Spike Dup (A312350-BSD1)

Strontium - Dissolved (1)	200	1.0	ug/L	200		102	85-115	1	20	10/21/13	
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Matrix Spike (A312350-MS1), Source: A3J0909-02

Strontium - Dissolved (1)	1000	1.0	ug/L	200	850	89	70-130			10/21/13	
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Matrix Spike (A312350-MS2), Source: A3J1148-01

Strontium - Dissolved (1)	730	1.0	ug/L	200	530	100	70-130			10/21/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.8 - Quality Control

Batch: A312350

Prepared: 10/17/2013

Prep Method: Filtration - Metals

Analyst: MAS

Matrix Spike Dup (A312350-MSD1), Source: A3J0909-02

Strontium - Dissolved (1)	1000	1.0	ug/L	200	850	91	70-130	0	20	10/21/13	
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Matrix Spike Dup (A312350-MSD2), Source: A3J1148-01

Strontium - Dissolved (1)	740	1.0	ug/L	200	530	105	70-130	1	20	10/21/13	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A312133

Prepared: 10/14/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A312133-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							10/16/13	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							10/16/13	
Surrogate: TCMX	1.3			1.5		85	70-130			10/16/13	

Blank Spike (A312133-BS1)

Dibromochloropropane (DBCP)	0.21	0.010	ug/L	0.20		103	70-130			10/16/13	
Ethylene Dibromide (EDB)	0.37	0.020	ug/L	0.40		93	70-130			10/16/13	
Surrogate: TCMX	1.2			1.5		81	70-130			10/16/13	

Blank Spike Dup (A312133-BSD1)

Dibromochloropropane (DBCP)	0.20	0.010	ug/L	0.20		100	70-130	3	20	10/16/13	
Ethylene Dibromide (EDB)	0.37	0.020	ug/L	0.40		92	70-130	1	20	10/16/13	
Surrogate: TCMX	1.1			1.5		75	70-130			10/16/13	

Matrix Spike (A312133-MS1), Source: A3J1076-01

Dibromochloropropane (DBCP)	0.20	0.010	ug/L	0.20	ND	99	65-135			10/16/13	
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.20	ND	104	65-135			10/16/13	
Surrogate: TCMX	1.3			1.5		85	70-130			10/16/13	

Matrix Spike Dup (A312133-MSD1), Source: A3J1076-01

Dibromochloropropane (DBCP)	0.20	0.010	ug/L	0.20	ND	100	65-135	1	20	10/16/13	
Ethylene Dibromide (EDB)	0.20	0.020	ug/L	0.20	ND	101	65-135	3	20	10/16/13	
Surrogate: TCMX	1.2			1.5		81	70-130			10/16/13	

EPA 505 - Quality Control

Batch: A312133

Prepared: 10/14/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A312133-BLK1)

Aldrin	ND	0.075	ug/L							10/17/13	
Chlordane	ND	0.10	ug/L							10/17/13	
Chlorothalonil	ND	5.0	ug/L							10/17/13	
Dieldrin	ND	0.020	ug/L							10/17/13	
Endrin	ND	0.10	ug/L							10/17/13	
Heptachlor	ND	0.010	ug/L							10/17/13	
Heptachlor Epoxide	ND	0.010	ug/L							10/17/13	
Hexachlorobenzene	ND	0.50	ug/L							10/17/13	
Hexachlorocyclopentadiene	ND	1.0	ug/L							10/17/13	
Lindane	ND	0.20	ug/L							10/17/13	
Methoxychlor	ND	10	ug/L							10/17/13	
PCB Aroclor Screen	ND	0.50	ug/L							10/17/13	
Toxaphene	ND	1.0	ug/L							10/17/13	
Trifluralin	ND	1.0	ug/L							10/17/13	
Surrogate: TCMX	1.5			1.5		98	70-130			10/17/13	

Blank Spike (A312133-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A312133

Prepared: 10/14/2013

Prep Method: EPA 505

Analyst: GAK

Blank Spike (A312133-BS1)

Aldrin	0.92	0.075	ug/L	1.0		92	70-130			10/16/13	
Chlorothalonil	10	5.0	ug/L	10		103	70-130			10/16/13	
Dieldrin	0.42	0.020	ug/L	0.40		105	70-130			10/16/13	
Endrin	0.99	0.10	ug/L	1.0		99	70-130			10/16/13	
Heptachlor	0.19	0.010	ug/L	0.20		93	70-130			10/16/13	
Heptachlor Epoxide	0.21	0.010	ug/L	0.20		103	70-130			10/16/13	
Hexachlorobenzene	1.9	0.50	ug/L	2.0		97	70-130			10/16/13	
Hexachlorocyclopentadiene	1.6	1.0	ug/L	2.0		78	70-130			10/16/13	
Lindane	1.0	0.20	ug/L	1.0		103	70-130			10/16/13	
Methoxychlor	1.9	10	ug/L	2.0		97	70-130			10/16/13	
Trifluralin	1.9	1.0	ug/L	2.0		97	70-130			10/16/13	
Surrogate: TCMX	1.2			1.5		81	70-130			10/16/13	

Blank Spike Dup (A312133-BSD1)

Aldrin	0.88	0.075	ug/L	1.0		88	70-130	4	20	10/16/13	
Chlorothalonil	10	5.0	ug/L	10		100	70-130	3	20	10/16/13	
Dieldrin	0.40	0.020	ug/L	0.40		100	70-130	5	20	10/16/13	
Endrin	0.93	0.10	ug/L	1.0		93	70-130	6	20	10/16/13	
Heptachlor	0.19	0.010	ug/L	0.20		93	70-130	0	20	10/16/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20		98	70-130	5	20	10/16/13	
Hexachlorobenzene	1.9	0.50	ug/L	2.0		93	70-130	5	20	10/16/13	
Hexachlorocyclopentadiene	1.5	1.0	ug/L	2.0		73	70-130	6	20	10/16/13	
Lindane	0.98	0.20	ug/L	1.0		98	70-130	4	20	10/16/13	
Methoxychlor	1.8	10	ug/L	2.0		92	70-130	5	20	10/16/13	
Trifluralin	1.9	1.0	ug/L	2.0		96	70-130	2	20	10/16/13	
Surrogate: TCMX	1.1			1.5		75	70-130			10/16/13	

Matrix Spike (A312133-MS1), Source: A3J1076-01

Aldrin	1.0	0.075	ug/L	1.0	ND	102	65-135			10/16/13	
Chlorothalonil	10	5.0	ug/L	10	ND	100	65-135			10/16/13	
Dieldrin	0.41	0.020	ug/L	0.40	ND	101	65-135			10/16/13	
Endrin	0.22	0.10	ug/L	0.20	ND	107	65-135			10/16/13	
Heptachlor	0.19	0.010	ug/L	0.20	ND	96	65-135			10/16/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20	ND	98	65-135			10/16/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0	ND	102	65-135			10/16/13	
Hexachlorocyclopentadiene	1.7	1.0	ug/L	2.0	ND	83	65-135			10/16/13	
Lindane	0.42	0.20	ug/L	0.40	ND	104	65-135			10/16/13	
Methoxychlor	1.9	10	ug/L	2.0	ND	93	65-135			10/16/13	
Trifluralin	2.1	1.0	ug/L	2.0	ND	102	65-135			10/16/13	
Surrogate: TCMX	1.3			1.5		85	70-130			10/16/13	

Matrix Spike Dup (A312133-MSD1), Source: A3J1076-01

Aldrin	1.0	0.075	ug/L	1.0	ND	100	65-135	1	20	10/16/13	
Chlorothalonil	10	5.0	ug/L	10	ND	100	65-135	1	20	10/16/13	
Dieldrin	0.41	0.020	ug/L	0.41	ND	101	65-135	1	20	10/16/13	
Endrin	0.20	0.10	ug/L	0.20	ND	101	65-135	6	20	10/16/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A312133

Prepared: 10/14/2013

Prep Method: EPA 505

Analyst: GAK

Matrix Spike Dup (A312133-MSD1), Source: A3J1076-01

Heptachlor	0.20	0.010	ug/L	0.20	ND	96	65-135	1	20	10/16/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20	ND	98	65-135	0	20	10/16/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0	ND	101	65-135	1	20	10/16/13	
Hexachlorocyclopentadiene	1.6	1.0	ug/L	2.0	ND	77	65-135	6	20	10/16/13	
Lindane	0.43	0.20	ug/L	0.41	ND	105	65-135	1	20	10/16/13	
Methoxychlor	2.0	10	ug/L	2.0	ND	101	65-135	8	20	10/16/13	
Trifluralin	2.0	1.0	ug/L	2.0	ND	101	65-135	1	20	10/16/13	
Surrogate: TCMX	1.2			1.5		81	70-130			10/16/13	

EPA 515.3 - Quality Control

Batch: A311994

Prepared: 10/9/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank (A311994-BLK1)

2,4,5-T	ND	1.0	ug/L							10/11/13	
2,4,5-TP (Silvex)	ND	1.0	ug/L							10/11/13	
2,4-D	ND	10	ug/L							10/11/13	
Bentazon	ND	2.0	ug/L							10/11/13	
Dalapon	ND	10	ug/L							10/11/13	
Dicamba	ND	1.5	ug/L							10/11/13	
Dinoseb	ND	2.0	ug/L							10/11/13	
Pentachlorophenol	ND	0.20	ug/L							10/11/13	
Picloram	ND	1.0	ug/L							10/11/13	
Surrogate: DCPAA	58			58		99	70-130			10/11/13	

Blank Spike (A311994-BS1)

2,4,5-T	4.8	1.0	ug/L	4.0		120	70-130			10/11/13	
2,4,5-TP (Silvex)	4.8	1.0	ug/L	4.0		120	70-130			10/11/13	
2,4-D	49	10	ug/L	40		122	70-130			10/11/13	
Bentazon	8.8	2.0	ug/L	8.0		111	70-130			10/11/13	
Dalapon	43	10	ug/L	40		108	70-130			10/11/13	
Dicamba	7.4	1.5	ug/L	6.0		122	70-130			10/11/13	
Dinoseb	9.6	2.0	ug/L	8.0		120	70-130			10/11/13	
Pentachlorophenol	1.0	0.20	ug/L	0.80		127	70-130			10/11/13	
Picloram	4.9	1.0	ug/L	4.0		123	70-130			10/11/13	
Surrogate: DCPAA	60			58		104	70-130			10/11/13	

Blank Spike Dup (A311994-BSD1)

2,4,5-T	4.7	1.0	ug/L	4.0		118	70-130	1	20	10/11/13	
2,4,5-TP (Silvex)	4.7	1.0	ug/L	4.0		119	70-130	1	20	10/11/13	
2,4-D	49	10	ug/L	40		121	70-130	0	20	10/11/13	
Bentazon	8.5	2.0	ug/L	8.0		106	70-130	4	20	10/11/13	
Dalapon	43	10	ug/L	40		107	70-130	1	20	10/11/13	
Dicamba	7.2	1.5	ug/L	6.0		121	70-130	2	20	10/11/13	
Dinoseb	9.2	2.0	ug/L	8.0		115	70-130	4	20	10/11/13	
Pentachlorophenol	0.99	0.20	ug/L	0.80		124	70-130	2	20	10/11/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A311994

Prepared: 10/9/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A311994-BSD1)

Picloram	4.9	1.0	ug/L	4.0		123	70-130	0	20	10/11/13	
Surrogate: DCPAA	59			58		102	70-130			10/11/13	

Matrix Spike (A311994-MS1), Source: A3J0477-01

2,4,5-T	4.9	1.0	ug/L	4.0	ND	122	70-130			10/11/13	
2,4,5-TP (Silvex)	4.9	1.0	ug/L	4.0	ND	122	70-130			10/11/13	
2,4-D	50	10	ug/L	40	ND	126	70-130			10/11/13	
Bentazon	8.9	2.0	ug/L	8.0	ND	111	70-130			10/11/13	
Dalapon	43	10	ug/L	40	ND	108	70-130			10/11/13	
Dicamba	7.4	1.5	ug/L	6.0	ND	123	70-130			10/11/13	
Dinoseb	9.4	2.0	ug/L	8.0	ND	118	70-130			10/11/13	
Pentachlorophenol	1.0	0.20	ug/L	0.80	ND	125	70-130			10/11/13	
Picloram	5.0	1.0	ug/L	4.0	ND	126	70-130			10/11/13	
Surrogate: DCPAA	60			58		103	70-130			10/11/13	

Matrix Spike Dup (A311994-MSD1), Source: A3J0477-01

2,4,5-T	4.6	1.0	ug/L	4.0	ND	116	70-130	5	20	10/11/13	
2,4,5-TP (Silvex)	4.7	1.0	ug/L	4.0	ND	116	70-130	5	20	10/11/13	
2,4-D	47	10	ug/L	40	ND	118	70-130	6	20	10/11/13	
Bentazon	8.5	2.0	ug/L	8.0	ND	107	70-130	4	20	10/11/13	
Dalapon	41	10	ug/L	40	ND	103	70-130	5	20	10/11/13	
Dicamba	7.0	1.5	ug/L	6.0	ND	117	70-130	5	20	10/11/13	
Dinoseb	9.1	2.0	ug/L	8.0	ND	114	70-130	3	20	10/11/13	
Pentachlorophenol	0.96	0.20	ug/L	0.80	ND	120	70-130	4	20	10/11/13	
Picloram	4.7	1.0	ug/L	4.0	ND	117	70-130	7	20	10/11/13	
Surrogate: DCPAA	58			58		100	70-130			10/11/13	

EPA 524.2 - Quality Control

Batch: A312121

Prepared: 10/14/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A312121-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							10/14/13	
1,1,1-Trichloroethane	ND	0.50	ug/L							10/14/13	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							10/14/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							10/14/13	
1,1,2-Trichloroethane	ND	0.50	ug/L							10/14/13	
1,1-Dichloroethane	ND	0.50	ug/L							10/14/13	
1,1-Dichloroethene	ND	0.50	ug/L							10/14/13	
1,1-Dichloropropene	ND	0.50	ug/L							10/14/13	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							10/14/13	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							10/14/13	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							10/14/13	
1,2-Dichlorobenzene	ND	0.50	ug/L							10/14/13	
1,2-Dichloroethane	ND	0.50	ug/L							10/14/13	
1,2-Dichloropropane	ND	0.50	ug/L							10/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A312121

Prepared: 10/14/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A312121-BLK1)

1,3,5-Trimethylbenzene	ND	0.50	ug/L							10/14/13	
1,3-Dichlorobenzene	ND	0.50	ug/L							10/14/13	
1,3-Dichloropropane	ND	0.50	ug/L							10/14/13	
1,4-Dichlorobenzene	ND	0.50	ug/L							10/14/13	
2,2-Dichloropropane	ND	0.50	ug/L							10/14/13	
2-Butanone	ND	5.0	ug/L							10/14/13	
2-Chlorotoluene	ND	0.50	ug/L							10/14/13	
2-Hexanone	ND	10	ug/L							10/14/13	
4-Chlorotoluene	ND	0.50	ug/L							10/14/13	
4-Methyl-2-pentanone	ND	5.0	ug/L							10/14/13	
Acetone	ND	10	ug/L							10/14/13	
Benzene	ND	0.50	ug/L							10/14/13	
Bromobenzene	ND	0.50	ug/L							10/14/13	
Bromochloromethane	ND	0.50	ug/L							10/14/13	
Bromodichloromethane	ND	0.50	ug/L							10/14/13	
Bromoform	ND	0.50	ug/L							10/14/13	
Bromomethane	ND	0.50	ug/L							10/14/13	
Carbon Tetrachloride	ND	0.50	ug/L							10/14/13	
Chlorobenzene	ND	0.50	ug/L							10/14/13	
Chloroethane	ND	0.50	ug/L							10/14/13	
Chloroform	ND	0.50	ug/L							10/14/13	
Chloromethane	ND	0.50	ug/L							10/14/13	
cis-1,2-Dichloroethene	ND	0.50	ug/L							10/14/13	
cis-1,3-Dichloropropene	ND	0.50	ug/L							10/14/13	
Dibromochloromethane	ND	0.50	ug/L							10/14/13	
Dibromomethane	ND	0.50	ug/L							10/14/13	
Dichlorodifluoromethane	ND	0.50	ug/L							10/14/13	
Dichloromethane	ND	0.50	ug/L							10/14/13	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							10/14/13	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							10/14/13	
Ethylbenzene	ND	0.50	ug/L							10/14/13	
Hexachlorobutadiene	ND	0.50	ug/L							10/14/13	
Isopropylbenzene	ND	0.50	ug/L							10/14/13	
m,p-Xylenes	ND	0.50	ug/L							10/14/13	
Methyl-t-butyl ether	ND	0.50	ug/L							10/14/13	
Naphthalene	ND	0.50	ug/L							10/14/13	
n-Butylbenzene	ND	0.50	ug/L							10/14/13	
n-Propylbenzene	ND	0.50	ug/L							10/14/13	
o-Xylene	ND	0.50	ug/L							10/14/13	
p-Isopropyltoluene	ND	0.50	ug/L							10/14/13	
sec-Butylbenzene	ND	0.50	ug/L							10/14/13	
Styrene	ND	0.50	ug/L							10/14/13	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							10/14/13	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							10/14/13	
tert-Butylbenzene	ND	0.50	ug/L							10/14/13	
Tetrachloroethene (PCE)	ND	0.50	ug/L							10/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A312121

Prepared: 10/14/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A312121-BLK1)

Toluene	ND	0.50	ug/L							10/14/13	
trans-1,2-Dichloroethene	ND	0.50	ug/L							10/14/13	
trans-1,3-Dichloropropene	ND	0.50	ug/L							10/14/13	
Trichloroethene (TCE)	ND	0.50	ug/L							10/14/13	
Trichlorofluoromethane	ND	5.0	ug/L							10/14/13	
Vinyl Chloride	ND	0.50	ug/L							10/14/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.6			5.0		92	70-130			10/14/13	
Surrogate: Bromofluorobenzene	4.9			5.0		97	70-130			10/14/13	

Blank Spike (A312121-BS1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		112	70-130			10/14/13	
1,1,1-Trichloroethane	11	0.50	ug/L	10		111	70-130			10/14/13	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		107	70-130			10/14/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.9	10	ug/L	10		99	70-130			10/14/13	
1,1,2-Trichloroethane	10	0.50	ug/L	10		103	70-130			10/14/13	
1,1-Dichloroethane	10	0.50	ug/L	10		104	70-130			10/14/13	
1,1-Dichloroethene	11	0.50	ug/L	10		111	70-130			10/14/13	
1,1-Dichloropropene	11	0.50	ug/L	10		107	70-130			10/14/13	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		104	70-130			10/14/13	
1,2,4-Trichlorobenzene	10	0.50	ug/L	10		105	70-130			10/14/13	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		104	70-130			10/14/13	
1,2-Dichlorobenzene	10	0.50	ug/L	10		102	70-130			10/14/13	
1,2-Dichloroethane	10	0.50	ug/L	10		104	70-130			10/14/13	
1,2-Dichloropropane	11	0.50	ug/L	10		106	70-130			10/14/13	
1,3,5-Trimethylbenzene	10	0.50	ug/L	10		103	70-130			10/14/13	
1,3-Dichlorobenzene	11	0.50	ug/L	10		105	70-130			10/14/13	
1,3-Dichloropropane	10	0.50	ug/L	10		101	70-130			10/14/13	
1,4-Dichlorobenzene	10	0.50	ug/L	10		103	70-130			10/14/13	
2,2-Dichloropropane	13	0.50	ug/L	10		126	70-130			10/14/13	
2-Butanone	10	5.0	ug/L	10		104	70-130			10/14/13	
2-Chlorotoluene	10	0.50	ug/L	10		103	70-130			10/14/13	
2-Hexanone	11	10	ug/L	10		109	70-130			10/14/13	
4-Chlorotoluene	10	0.50	ug/L	10		103	70-130			10/14/13	
4-Methyl-2-pentanone	11	5.0	ug/L	10		111	70-130			10/14/13	
Acetone	11	10	ug/L	10		113	70-130			10/14/13	
Benzene	9.8	0.50	ug/L	10		98	70-130			10/14/13	
Bromobenzene	11	0.50	ug/L	10		106	70-130			10/14/13	
Bromochloromethane	11	0.50	ug/L	10		110	70-130			10/14/13	
Bromodichloromethane	11	0.50	ug/L	10		111	70-130			10/14/13	
Bromoform	10	0.50	ug/L	10		102	70-130			10/14/13	
Bromomethane	7.9	0.50	ug/L	10		79	70-130			10/14/13	
Carbon Tetrachloride	11	0.50	ug/L	10		108	70-130			10/14/13	
Chlorobenzene	9.9	0.50	ug/L	10		99	70-130			10/14/13	
Chloroethane	12	0.50	ug/L	10		122	70-130			10/14/13	
Chloroform	11	0.50	ug/L	10		109	70-130			10/14/13	
Chloromethane	8.9	0.50	ug/L	10		89	70-130			10/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A312121

Prepared: 10/14/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A312121-BS1)

cis-1,2-Dichloroethene	10	0.50	ug/L	10		104	70-130			10/14/13	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		112	70-130			10/14/13	
Dibromochloromethane	11	0.50	ug/L	10		110	70-130			10/14/13	
Dibromomethane	11	0.50	ug/L	10		105	70-130			10/14/13	
Dichlorodifluoromethane	7.5	0.50	ug/L	10		75	70-130			10/14/13	
Dichloromethane	10	0.50	ug/L	10		100	70-130			10/14/13	
Di-isopropyl ether (DIPE)	12	3.0	ug/L	10		119	70-130			10/14/13	
Ethyl tert-Butyl Ether (ETBE)	12	0.50	ug/L	10		120	70-130			10/14/13	
Ethylbenzene	9.7	0.50	ug/L	10		97	70-130			10/14/13	
Hexachlorobutadiene	9.9	0.50	ug/L	10		99	70-130			10/14/13	
Isopropylbenzene	11	0.50	ug/L	10		106	70-130			10/14/13	
m,p-Xylenes	19	0.50	ug/L	20		95	70-130			10/14/13	
Methyl-t-butyl ether	22	0.50	ug/L	20		110	70-130			10/14/13	
Naphthalene	9.8	0.50	ug/L	10		98	70-130			10/14/13	
n-Butylbenzene	10	0.50	ug/L	10		105	70-130			10/14/13	
n-Propylbenzene	11	0.50	ug/L	10		105	70-130			10/14/13	
o-Xylene	9.5	0.50	ug/L	10		95	70-130			10/14/13	
p-Isopropyltoluene	11	0.50	ug/L	10		105	70-130			10/14/13	
sec-Butylbenzene	10	0.50	ug/L	10		103	70-130			10/14/13	
Styrene	12	0.50	ug/L	10		117	70-130			10/14/13	
tert-Amyl Methyl Ether (TAME)	11	3.0	ug/L	10		106	70-130			10/14/13	
tert-Butyl alcohol (TBA)	11	2.0	ug/L	10		107	70-130			10/14/13	
tert-Butylbenzene	9.9	0.50	ug/L	10		99	70-130			10/14/13	
Tetrachloroethene (PCE)	9.8	0.50	ug/L	10		98	70-130			10/14/13	
Toluene	9.8	0.50	ug/L	10		98	70-130			10/14/13	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		113	70-130			10/14/13	
trans-1,3-Dichloropropene	12	0.50	ug/L	10		117	70-130			10/14/13	
Trichloroethene (TCE)	10	0.50	ug/L	10		104	70-130			10/14/13	
Trichlorofluoromethane	11	5.0	ug/L	10		110	70-130			10/14/13	
Vinyl Chloride	9.2	0.50	ug/L	10		92	70-130			10/14/13	
Surrogate: 1,2-Dichlorobenzene-d4	5.0			5.0		100	70-130			10/14/13	
Surrogate: Bromofluorobenzene	5.1			5.0		102	70-130			10/14/13	

Blank Spike Dup (A312121-BSD1)

1,1,1,2-Tetrachloroethane	11	0.50	ug/L	10		112	70-130	0	30	10/14/13	
1,1,1-Trichloroethane	11	0.50	ug/L	10		111	70-130	0	30	10/14/13	
1,1,2,2-Tetrachloroethane	11	0.50	ug/L	10		107	70-130	0	30	10/14/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.8	10	ug/L	10		98	70-130	1	30	10/14/13	
1,1,2-Trichloroethane	10	0.50	ug/L	10		100	70-130	4	30	10/14/13	
1,1-Dichloroethane	9.8	0.50	ug/L	10		98	70-130	6	30	10/14/13	
1,1-Dichloroethene	11	0.50	ug/L	10		106	70-130	4	30	10/14/13	
1,1-Dichloropropene	11	0.50	ug/L	10		108	70-130	1	30	10/14/13	
1,2,3-Trichlorobenzene	11	0.50	ug/L	10		106	70-130	3	30	10/14/13	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		107	70-130	2	30	10/14/13	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		105	70-130	1	30	10/14/13	
1,2-Dichlorobenzene	10	0.50	ug/L	10		104	70-130	2	30	10/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A312121

Prepared: 10/14/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A312121-BSD1)

1,2-Dichloroethane	9.8	0.50	ug/L	10		98	70-130	5	30	10/14/13	
1,2-Dichloropropane	10	0.50	ug/L	10		104	70-130	3	30	10/14/13	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		105	70-130	2	30	10/14/13	
1,3-Dichlorobenzene	11	0.50	ug/L	10		108	70-130	3	30	10/14/13	
1,3-Dichloropropane	9.8	0.50	ug/L	10		98	70-130	3	30	10/14/13	
1,4-Dichlorobenzene	11	0.50	ug/L	10		106	70-130	3	30	10/14/13	
2,2-Dichloropropane	12	0.50	ug/L	10		124	70-130	2	30	10/14/13	
2-Butanone	9.8	5.0	ug/L	10		98	70-130	7	30	10/14/13	
2-Chlorotoluene	10	0.50	ug/L	10		105	70-130	2	30	10/14/13	
2-Hexanone	10	10	ug/L	10		103	70-130	6	30	10/14/13	
4-Chlorotoluene	11	0.50	ug/L	10		105	70-130	2	30	10/14/13	
4-Methyl-2-pentanone	11	5.0	ug/L	10		106	70-130	5	30	10/14/13	
Acetone	10	10	ug/L	10		104	70-130	8	30	10/14/13	
Benzene	9.9	0.50	ug/L	10		99	70-130	1	30	10/14/13	
Bromobenzene	11	0.50	ug/L	10		106	70-130	0	30	10/14/13	
Bromochloromethane	10	0.50	ug/L	10		103	70-130	7	30	10/14/13	
Bromodichloromethane	11	0.50	ug/L	10		107	70-130	4	30	10/14/13	
Bromoform	10	0.50	ug/L	10		101	70-130	1	30	10/14/13	
Bromomethane	7.6	0.50	ug/L	10		76	70-130	4	30	10/14/13	
Carbon Tetrachloride	11	0.50	ug/L	10		109	70-130	0	30	10/14/13	
Chlorobenzene	9.7	0.50	ug/L	10		97	70-130	2	30	10/14/13	
Chloroethane	13	0.50	ug/L	10		132	70-130	8	30	10/14/13	BS High
Chloroform	10	0.50	ug/L	10		104	70-130	4	30	10/14/13	
Chloromethane	9.2	0.50	ug/L	10		92	70-130	4	30	10/14/13	
cis-1,2-Dichloroethene	9.6	0.50	ug/L	10		96	70-130	7	30	10/14/13	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		109	70-130	3	30	10/14/13	
Dibromochloromethane	10	0.50	ug/L	10		103	70-130	7	30	10/14/13	
Dibromomethane	9.8	0.50	ug/L	10		98	70-130	7	30	10/14/13	
Dichlorodifluoromethane	7.8	0.50	ug/L	10		78	70-130	4	30	10/14/13	
Dichloromethane	10	0.50	ug/L	10		100	70-130	1	30	10/14/13	
Di-isopropyl ether (DIPE)	12	3.0	ug/L	10		116	70-130	3	30	10/14/13	
Ethyl tert-Butyl Ether (ETBE)	12	0.50	ug/L	10		118	70-130	2	30	10/14/13	
Ethylbenzene	9.4	0.50	ug/L	10		94	70-130	3	30	10/14/13	
Hexachlorobutadiene	10	0.50	ug/L	10		104	70-130	4	30	10/14/13	
Isopropylbenzene	11	0.50	ug/L	10		106	70-130	1	30	10/14/13	
m,p-Xylenes	19	0.50	ug/L	20		94	70-130	1	30	10/14/13	
Methyl-t-butyl ether	21	0.50	ug/L	20		106	70-130	3	30	10/14/13	
Naphthalene	10	0.50	ug/L	10		100	70-130	1	30	10/14/13	
n-Butylbenzene	11	0.50	ug/L	10		106	70-130	1	30	10/14/13	
n-Propylbenzene	11	0.50	ug/L	10		106	70-130	1	30	10/14/13	
o-Xylene	9.4	0.50	ug/L	10		94	70-130	1	30	10/14/13	
p-Isopropyltoluene	11	0.50	ug/L	10		106	70-130	1	30	10/14/13	
sec-Butylbenzene	11	0.50	ug/L	10		110	70-130	7	30	10/14/13	
Styrene	12	0.50	ug/L	10		118	70-130	1	30	10/14/13	
tert-Amyl Methyl Ether (TAME)	10	3.0	ug/L	10		104	70-130	2	30	10/14/13	
tert-Butyl alcohol (TBA)	10	2.0	ug/L	10		104	70-130	3	30	10/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A312121

Prepared: 10/14/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A312121-BSD1)

tert-Butylbenzene	10	0.50	ug/L	10		100	70-130	2	30	10/14/13	
Tetrachloroethene (PCE)	9.8	0.50	ug/L	10		98	70-130	0	30	10/14/13	
Toluene	9.5	0.50	ug/L	10		95	70-130	3	30	10/14/13	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		108	70-130	4	30	10/14/13	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		112	70-130	5	30	10/14/13	
Trichloroethene (TCE)	11	0.50	ug/L	10		107	70-130	3	30	10/14/13	
Trichlorofluoromethane	10	5.0	ug/L	10		104	70-130	6	30	10/14/13	
Vinyl Chloride	9.7	0.50	ug/L	10		97	70-130	5	30	10/14/13	
Surrogate: 1,2-Dichlorobenzene-d4	5.1			5.0		102	70-130			10/14/13	
Surrogate: Bromofluorobenzene	5.1			5.0		102	70-130			10/14/13	

EPA 525.2 - Quality Control

Batch: A312014

Prepared: 10/10/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank (A312014-BLK1)

Alachlor	ND	1.0	ug/L							10/11/13	
Atrazine	ND	0.50	ug/L							10/11/13	
Benzo(a)pyrene	ND	0.10	ug/L							10/11/13	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							10/11/13	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							10/11/13	
Bromacil	ND	10	ug/L							10/11/13	
Butachlor	ND	0.38	ug/L							10/11/13	
Diazinon	ND	0.25	ug/L							10/11/13	
Dimethoate	ND	10	ug/L							10/11/13	
Metolachlor	ND	0.50	ug/L							10/11/13	
Metribuzin	ND	0.50	ug/L							10/11/13	
Molinate	ND	2.0	ug/L							10/11/13	
Propachlor	ND	0.50	ug/L							10/11/13	
Simazine	ND	1.0	ug/L							10/11/13	
Thiobencarb	ND	1.0	ug/L							10/11/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.3			5.0		106	70-130			10/11/13	

Blank Spike (A312014-BS1)

Alachlor	0.53	1.0	ug/L	0.50		108	70-130			10/11/13	
Atrazine	0.51	0.50	ug/L	0.50		103	70-130			10/11/13	
Benzo(a)pyrene	0.11	0.10	ug/L	0.099		107	70-130			10/11/13	
Bis(2-ethylhexyl) adipate	3.3	3.0	ug/L	3.0		110	70-130			10/11/13	
Bis(2-ethylhexyl) phthalate	3.4	3.0	ug/L	3.0		115	70-130			10/11/13	
Bromacil	2.6	10	ug/L	2.0		129	70-130			10/11/13	
Butachlor	1.4	0.38	ug/L	1.2		114	70-130			10/11/13	
Diazinon	0.049	0.25	ug/L	0.050		98	70-130			10/11/13	
Dimethoate	0.56	10	ug/L	0.50		114	70-130			10/11/13	
Metolachlor	2.8	0.50	ug/L	2.5		111	70-130			10/11/13	
Metribuzin	2.8	0.50	ug/L	2.5		113	70-130			10/11/13	
Molinate	2.7	2.0	ug/L	2.5		109	70-130			10/11/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A312014

Prepared: 10/10/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A312014-BS1)

Propachlor	2.7	0.50	ug/L	2.5		108	70-130			10/11/13	
Simazine	0.41	1.0	ug/L	0.35		117	70-130			10/11/13	
Thiobencarb	0.52	1.0	ug/L	0.50		104	70-130			10/11/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.8			5.0		97	70-130			10/11/13	

Blank Spike Dup (A312014-BSD1)

Alachlor	0.51	1.0	ug/L	0.49		104	70-130	5	30	10/11/13	
Atrazine	0.49	0.50	ug/L	0.49		99	70-130	4	30	10/11/13	
Benzo(a)pyrene	0.10	0.10	ug/L	0.098		106	70-130	2	30	10/11/13	
Bis(2-ethylhexyl) adipate	3.1	3.0	ug/L	2.9		106	70-130	4	30	10/11/13	
Bis(2-ethylhexyl) phthalate	3.3	3.0	ug/L	2.9		112	70-130	4	30	10/11/13	
Bromacil	2.2	10	ug/L	2.0		110	70-130	17	30	10/11/13	
Butachlor	1.2	0.38	ug/L	1.2		99	70-130	14	30	10/11/13	
Diazinon	0.048	0.25	ug/L	0.049		98	70-130	1	30	10/11/13	
Dimethoate	0.47	10	ug/L	0.49		95	70-130	19	30	10/11/13	
Metolachlor	2.5	0.50	ug/L	2.5		104	70-130	8	30	10/11/13	
Metribuzin	2.5	0.50	ug/L	2.5		100	70-130	13	30	10/11/13	
Molinate	2.6	2.0	ug/L	2.5		105	70-130	5	30	10/11/13	
Propachlor	2.5	0.50	ug/L	2.5		104	70-130	5	30	10/11/13	
Simazine	0.34	1.0	ug/L	0.34		99	70-130	18	30	10/11/13	
Thiobencarb	0.49	1.0	ug/L	0.49		100	70-130	5	30	10/11/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.9			4.9		100	70-130			10/11/13	

Matrix Spike (A312014-MS1), Source: A3J0858-01

Alachlor	0.63	1.0	ug/L	0.50	ND	127	70-130			10/11/13	
Atrazine	0.59	0.50	ug/L	0.50	ND	118	70-130			10/11/13	
Benzo(a)pyrene	0.18	0.10	ug/L	0.099	ND	154	70-130			10/11/13	MS1.0 High
Bis(2-ethylhexyl) adipate	3.5	3.0	ug/L	3.0	ND	117	70-130			10/11/13	
Bis(2-ethylhexyl) phthalate	4.3	3.0	ug/L	3.0	ND	133	70-130			10/11/13	MS1.0 High
Bromacil	2.9	10	ug/L	2.0	ND	148	70-130			10/11/13	MS1.0 High
Butachlor	1.6	0.38	ug/L	1.2	ND	130	70-130			10/11/13	
Diazinon	0.053	0.25	ug/L	0.050	ND	106	70-130			10/11/13	
Dimethoate	0.72	10	ug/L	0.50	ND	146	70-130			10/11/13	MS1.0 High
Metolachlor	2.9	0.50	ug/L	2.5	ND	118	70-130			10/11/13	
Metribuzin	2.8	0.50	ug/L	2.5	ND	115	70-130			10/11/13	
Molinate	2.6	2.0	ug/L	2.5	ND	104	70-130			10/11/13	
Propachlor	2.6	0.50	ug/L	2.5	ND	105	70-130			10/11/13	
Simazine	0.45	1.0	ug/L	0.35	ND	129	70-130			10/11/13	
Thiobencarb	0.59	1.0	ug/L	0.50	ND	119	70-130			10/11/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.8			5.0		97	70-130			10/11/13	

EPA 531.1 - Quality Control

Batch: A312119

Prepared: 10/12/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A312119-BLK1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A312119

Prepared: 10/12/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A312119-BLK1)

3-Hydroxycarbofuran	ND	2.0	ug/L							10/12/13	
Aldicarb	ND	2.0	ug/L							10/12/13	
Aldicarb Sulfone	ND	2.0	ug/L							10/12/13	
Aldicarb Sulfoxide	ND	2.0	ug/L							10/12/13	
Carbaryl	ND	2.0	ug/L							10/12/13	
Carbofuran	ND	2.0	ug/L							10/12/13	
Methomyl	ND	2.0	ug/L							10/12/13	
Oxamyl	ND	2.0	ug/L							10/12/13	

Blank Spike (A312119-BS1)

3-Hydroxycarbofuran	4.6	2.0	ug/L	4.2		110	80-120			10/12/13	
Aldicarb	4.7	2.0	ug/L	4.2		112	80-120			10/12/13	
Aldicarb Sulfone	4.4	2.0	ug/L	4.2		107	80-120			10/12/13	
Aldicarb Sulfoxide	4.3	2.0	ug/L	4.2		104	80-120			10/12/13	
Carbaryl	4.5	2.0	ug/L	4.2		108	80-120			10/12/13	
Carbofuran	4.5	2.0	ug/L	4.2		108	80-120			10/12/13	
Methomyl	4.2	2.0	ug/L	4.2		100	80-120			10/12/13	
Oxamyl	4.6	2.0	ug/L	4.2		110	80-120			10/12/13	

Blank Spike Dup (A312119-BSD1)

3-Hydroxycarbofuran	4.3	2.0	ug/L	4.2		102	80-120	8	20	10/12/13	
Aldicarb	4.9	2.0	ug/L	4.2		117	80-120	4	20	10/12/13	
Aldicarb Sulfone	4.0	2.0	ug/L	4.2		96	80-120	10	20	10/12/13	
Aldicarb Sulfoxide	4.0	2.0	ug/L	4.2		95	80-120	9	20	10/12/13	
Carbaryl	4.2	2.0	ug/L	4.2		101	80-120	6	20	10/12/13	
Carbofuran	4.1	2.0	ug/L	4.2		99	80-120	9	20	10/12/13	
Methomyl	3.8	2.0	ug/L	4.2		90	80-120	10	20	10/12/13	
Oxamyl	4.2	2.0	ug/L	4.2		102	80-120	8	20	10/12/13	

Matrix Spike (A312119-MS1), Source: A3J0644-01

3-Hydroxycarbofuran	4.2	2.0	ug/L	4.2	ND	100	65-135			10/12/13	
Aldicarb	4.5	2.0	ug/L	4.2	ND	107	65-135			10/12/13	
Aldicarb Sulfone	4.0	2.0	ug/L	4.2	ND	97	65-135			10/12/13	
Aldicarb Sulfoxide	4.0	2.0	ug/L	4.2	ND	95	65-135			10/12/13	
Carbaryl	4.3	2.0	ug/L	4.2	ND	103	65-135			10/12/13	
Carbofuran	4.2	2.0	ug/L	4.2	ND	101	65-135			10/12/13	
Methomyl	3.7	2.0	ug/L	4.2	ND	90	65-135			10/12/13	
Oxamyl	4.3	2.0	ug/L	4.2	ND	102	65-135			10/12/13	

EPA 547 - Quality Control

Batch: A312197

Prepared: 10/15/2013

Prep Method: EPA 547

Analyst: RJB

Blank (A312197-BLK1)

Glyphosate	ND	25	ug/L							10/15/13	
Surrogate: AMPA	110			100		113	70-130			10/15/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 547 - Quality Control

Batch: A312197

Prepared: 10/15/2013

Prep Method: EPA 547

Analyst: RJB

Blank Spike (A312197-BS1)

Glyphosate	100	25	ug/L	100		101	70-130			10/15/13	
Surrogate: AMPA	110			100		112	70-130			10/15/13	

Blank Spike Dup (A312197-BSD1)

Glyphosate	100	25	ug/L	100		102	70-130	1	30	10/15/13	
Surrogate: AMPA	120			100		115	70-130			10/15/13	

Matrix Spike (A312197-MS1), Source: A3J0722-01

Glyphosate	100	25	ug/L	100	ND	100	70-130			10/15/13	
Surrogate: AMPA	110			100		111	70-130			10/15/13	

Matrix Spike Dup (A312197-MSD1), Source: A3J0722-01

Glyphosate	100	25	ug/L	100	ND	102	70-130	2	30	10/15/13	
Surrogate: AMPA	120			100		115	70-130			10/15/13	

EPA 548.1 - Quality Control

Batch: A312182

Prepared: 10/14/2013

Prep Method: EPA 548.1

Analyst: KHH

Blank (A312182-BLK1)

Endothall	ND	45	ug/L							10/15/13	
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Blank Spike (A312182-BS1)

Endothall	15	45	ug/L	20		74	60-111			10/15/13	
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Blank Spike Dup (A312182-BSD1)

Endothall	14	45	ug/L	20		68	60-111	8	46	10/15/13	
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Matrix Spike (A312182-MS1), Source: A3J0722-01

Endothall	13	45	ug/L	20	ND	66	10-122			10/15/13	
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EPA 549.2 - Quality Control

Batch: A312161

Prepared: 10/14/2013

Prep Method: EPA 549.2

Analyst: PYA

Blank (A312161-BLK1)

Diquat	ND	4.0	ug/L							10/16/13	
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Blank Spike (A312161-BS1)

Diquat	3.6	4.0	ug/L	4.0		90	70-130			10/16/13	
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Blank Spike Dup (A312161-BSD1)

Diquat	3.6	4.0	ug/L	4.0		91	70-130	1	30	10/16/13	
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Matrix Spike (A312161-MS1), Source: A3J1185-01

Diquat	3.5	4.0	ug/L	4.0	ND	87	70-130			10/16/13	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 549.2 - Quality Control

Batch: A312161

Prepared: 10/14/2013

Prep Method: EPA 549.2

Analyst: PYA

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of California - ELAP	1180	State of Nevada	CA000792009A
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA
State of California - NELAP	04227CA	State of Oregon	4017
State of Washington	C997	State of Oregon - NWT PH	4021

BSK is not accredited under the NELAC program for the following parameters:

Boron	Silica (SiO2)	Strontium
Threshold Odor		

A3J0790



California American Water

Calif3295



10092013

Turnaround: Standard

Due Date: 10/23/2013



*Required Fields

Temp: 18

Company/Client Name*: <u>RBF Consulting</u>	Report Attention*: <u>Sarp Sekereglu</u>	Invoice To*:	Phone*: <u>831-883-8187</u>	Fax: <u>831-883-9967</u>
Address*: <u>3180 Inglin Rd. #110 Marina, CA 93933</u>	Additional cc's:	PO#:	E-mail*: <u>s.sekereglu@rbf.com</u>	

City*: <u>Marina, CA</u>	State*: <u>CA</u>	Zip*: <u>93933</u>	Regulatory Carbon Copies
Project: <u>MPLWSP Exploratory boreholes</u>	Project #: <u>136410</u>		CDPH <input type="checkbox"/> Fresno Co Merced Co <input type="checkbox"/> Tulare Co Madera Co <input type="checkbox"/> Other: _____

Reporting Options: <input type="checkbox"/> Trace (J-Flag) <input type="checkbox"/> Swamp <input type="checkbox"/> EDD Type _____	How would you like your completed results sent? <input checked="" type="checkbox"/> E-Mail <input type="checkbox"/> Fax <input type="checkbox"/> Mail	Regulatory Compliance <input type="checkbox"/> EDT to California DPH System Number*: _____
Sampler Name (Printed/Signature)*: <u>Nathaniel Reynolds</u>	TAT* <input type="checkbox"/> Standard - 10 Business Days <input type="checkbox"/> **Rush: Date Needed _____	**Surcharge <input type="checkbox"/> Geotracker #: _____

#	Sample Description*	Sampled*		Matrix*	Comments / Station Code / WTRAX
		Date	Time		
21	MPLWSP ML-1 Zone #2 (90-100 ft deep)	10-8-13	18:25	GW	Field parameters = Temp = 16.8 °C pH = 7.24 TDS = 422 mg/L Turb = 2.52 NTU

Relinquished by (Signature and Printed Name): <u>Nathaniel Reynolds</u>	Company: <u>PRECISENTIA</u>	Date: <u>10-8-13</u>	Time: _____	Received by (Signature and Printed Name): _____	Company: _____
Relinquished by (Signature and Printed Name): <u>Shelly Teggio</u>	Company: <u>RBF</u>	Date: <u>10-8-13</u>	Time: <u>9:10 am</u>	Received by (Signature and Printed Name): _____	Company: _____

Received by Lab (Signature and Printed Name): <u>Nick Robles</u>	Date: <u>10-9-13</u>	Time: <u>9:53</u>	Payment Received at Delivery: Date: _____ Amount: _____ PIA#: _____	Check / Cash
Shipping Method: <u>CONTRAC</u> UPS GSO WALK-IN FED EX Courier _____	Custody Seal: <u>Y/N</u>			Chilling Process Begun: <u>Y/N</u>

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf



*Required Fields

Temp:

Company/Client Name: California American Water		Report Attention*: Travis Peterson Additional co's: Sarp Sekeroglu, RBF Consulting		Invoice To: Accounts Payable PO#:		Phone*: (831) 646-3295/(831) 646-3269		Fax*: (831) 333-1343	
Address*: PO Box 951		City*: Monterey		State*: CA		Zip*: 93942-0951		E-mail*: susan.jacobson@amwater.com, travis.petersen@amwater.com	

Project: Water Quality Analysis		Project #:		Regulatory Carbon Copies <input type="checkbox"/> CDPH <input type="checkbox"/> Fresno Co <input type="checkbox"/> Merced Co <input type="checkbox"/> Tulare Co <input type="checkbox"/> Madera Co <input type="checkbox"/> Other: _____		Alkalinity, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC	Mass Balance-Dissolved: Cations and Anions	Dissolved Metals: Ba, B, Ca, Fe, Mg, Mn, K, Na, Sr, silica	Total Metals: Al, As, Cu, Fe, Mn, Zn	Dissolved: Bromide, Chloride, Nitrite, Fluoride, Sulfate, Orthophosphate-P	Dissolved: Ammonia, TKN, Phosphorus	Nitrate+Nitrite as N, Nitrate-NO3	EPA 524, 504, 505, 515, 525, 531, 547, 548, 549	EXT-Tritium, EXT-Lithium, EXT-Dissolved Iodide, EXT-Dioxin
Reporting Options: <input type="checkbox"/> Trace (J-Flag) <input type="checkbox"/> Swamp <input type="checkbox"/> EDD Type: _____		How would you like your completed results sent*? <input checked="" type="checkbox"/> E-Mail <input type="checkbox"/> Fax <input type="checkbox"/> Mail		Regulatory Compliance <input type="checkbox"/> EDT to California DPH System Number*: _____										
Sampler Name (Printed/Signature)*:		TAT* <input checked="" type="checkbox"/> Standard - 10 Business Days <input type="checkbox"/> **Rush: Date Needed _____		Geotracker #: _____										

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled*		Matrix*	Comments / Station Code / WTRAX	Alkalinity, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC	Mass Balance-Dissolved: Cations and Anions	Dissolved Metals: Ba, B, Ca, Fe, Mg, Mn, K, Na, Sr, silica	Total Metals: Al, As, Cu, Fe, Mn, Zn	Dissolved: Bromide, Chloride, Nitrite, Fluoride, Sulfate, Orthophosphate-P	Dissolved: Ammonia, TKN, Phosphorus	Nitrate+Nitrite as N, Nitrate-NO3	EPA 524, 504, 505, 515, 525, 531, 547, 548, 549	EXT-Tritium, EXT-Lithium, EXT-Dissolved Iodide, EXT-Dioxin
		Date	Time											
				water	Seawater salinity levels.	X	X	X	X	X	X	X	X	X
					Lab to filter dissolved metals.									
					Lab to filter Diss. Ammonia, TKN, P									
					Okay to analyze out of hold time.									

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Received for Lab by: (Signature and Printed Name)	Date	Time	Payment Received at Delivery:		
		Date:		Amount:	PIA#:
				Check	Cash

Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Courier _____ Custody Seal: Y / N

Cooling Method: Wet B/Ue None Chilling Process Begun: Y / N

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf



Sample Integrity

BSK Bottles: Yes No Page of

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$		Yes No NA		Were correct containers and preservatives received for the tests requested?		Yes No NA	
	If samples were taken today, is there evidence that chilling has begun?		Yes No NA		Were there bobbies in the VOA vials? (Volatiles Only)		Yes No NA	
COC Info	Did all bottles arrive unbroken and intact?		Yes No		Was a sufficient amount of sample received?		Yes No	
	Did all bottle labels agree with COC?		Yes No		Do samples have a hold time < 72 hours?		Yes No	
COC Info	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?		Yes No NA		Was PM notified of discrepancies? PM: By/Time:		Yes No NA	
	Bottles Received <small>* means preservation/chlorine checks are either N/A or are performed in the lab</small>	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?				
Bacti $\text{Na}_2\text{S}_2\text{O}_3$		—	—					
None (P) ^{White Cap}		—	—		1B, 2C, 1A			
Cr6 Buffer (P) ^{Blue Cap}		pH 9-9.5	Y N					
HNO_3 (P) ^{Red Cap}		—	—		2b			
H_2SO_4 (P) ^{Yellow Cap}		pH ≤ 2	Y N		1A			
NaOH (P) ^{Green Cap}		Cl, pH ≥ 12	Y N					
NaOH + ZnAc (P)		pH ≥ 9	Y N					
Dissolved Oxygen 300ml (g)		—	—					
None (AG) 608/8081/8082, 625, 632/6321, 8151, 8270		—	—		1A, B, 2C			10-9-13
H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel		—	—					
$\text{Na}_2\text{S}_2\text{O}_3$ 1-Liter (Brown P) 549		—	—		1C			NR
$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548		—	—		2A, 2C			
$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3		—	—					
$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505		—	—		6V			
$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) ^{Orange Label} 531		pH = 3	Y N		1U			
NH_4Cl (AG) ^{Purple Label} 552		—	—					
EDA (AG) ^{Brown Label} DBPs		—	—		1A			
Ascorbic + Maleic (AG) ^{Lt Green Label} 524.3		—	—					
HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624		—	—		3U			
Buffer pH 4 (CG)		—	—					
None (CG)		—	—					
H_3PO_4 (CG) ^{Salmon Label}		—	—					
Other:								
Asbestos 1Liter Plastic w/ Foil	—	—						
Low Level Hg / Metals Double Baggie	—	—						
Bottled Water	—	—						
Clear Glass Jar: 250 / 500 / 1 Liter	—	—						
Soil Tube Brass / Steel / Plastic	—	—						
Tedlar Bag / Plastic Bag	—	—						
Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials		
	S P			S P				
	S P			S P				
Comments	250L AG came with cracked lid							

Labeled by: JLL @ 11:33

Labels checked by: CEJ @ 1:59

RUSH Paged by: @

External



A3J0790





Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601

(724) 850-5600

October 24, 2013

Mr. Michael Ng
BSK Analytical Laboratories
1414 Stanislaus St.
Fresno, CA 93706

RE: Project: A3J0790
Pace Project No.: 30105219

Dear Mr. Ng:

Enclosed are the analytical results for sample(s) received by the laboratory on October 15, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins

jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



Pace Analytical Services, Inc.
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

CERTIFICATIONS

Project: A3J0790
 Pace Project No.: 30105219

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
 ACLASS DOD-ELAP Accreditation #: ADE-1544
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California/TNI Certification #: 04222CA
 Colorado Certification
 Connecticut Certification #: PH-0694
 Delaware Certification
 Florida/TNI Certification #: E87683
 Guam/PADEP Certification
 Hawaii/PADEP Certification
 Idaho Certification
 Illinois/PADEP Certification
 Indiana/PADEP Certification
 Iowa Certification #: 391
 Kansas/TNI Certification #: E-10358
 Kentucky Certification #: 90133
 Louisiana/TNI Certification #: LA080002
 Louisiana/TNI Certification #: 4086
 Maine Certification #: PA0091
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification

Missouri Certification #: 235
 Montana Certification #: Cert 0082
 Nevada Certification
 New Hampshire/TNI Certification #: 2976
 New Jersey/TNI Certification #: PA 051
 New Mexico Certification
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Oregon/TNI Certification #: PA200002
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 South Dakota Certification
 Tennessee Certification #: TN2867
 Texas/TNI Certification #: T104704188
 Utah/TNI Certification #: ANTE
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 480198
 Washington Certification #: C868
 West Virginia Certification #: 143
 Wisconsin/PADEP Certification
 Wyoming Certification #: 8TMS-Q



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: A3J0790
Pace Project No.: 30105219

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30105219001	A3J0790-01	Water	10/07/13 18:25	10/15/13 09:30



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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: A3J0790
Pace Project No.: 30105219

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30105219001	A3J0790-01	EPA 906.0	SLA	1	PASI-PA



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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: A3J0790
Pace Project No.: 30105219

Method: EPA 906.0
Description: 906.0 Tritium
Client: BSK Analytical Laboratories
Date: October 24, 2013

General Information:

1 sample was analyzed for EPA 906.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



Pace Analytical Services, Inc.
 1638 Rossettown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

ANALYTICAL RESULTS

Project: A3J0790
 Pace Project No.: 30105219

Sample: A3J0790-01		Lab ID: 30105219001	Collected: 10/07/13 18:25	Received: 10/15/13 09:30	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Tritium	EPA 906.0	-17.9 ± 117 (210)	pCi/L	10/22/13 11:27	10028-17-8	



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 Greensburg, PA 15601
 (724)850-5600

QUALITY CONTROL DATA

Project: A3J0790
 Pace Project No.: 30105219

QC Batch:	RADC/17468	Analysis Method:	EPA 906.0
QC Batch Method:	EPA 906.0	Analysis Description:	906.0 Tritium
Associated Lab Samples:	30105219001		

METHOD BLANK:	645156	Matrix:	Water
Associated Lab Samples:	30105219001		

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Tritium	2.51 ± 116 (206)	pCi/L	10/22/13 10:25	



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 Greensburg, PA 15601
 (724)850-5600

QUALIFIERS

Project: A3J0790
 Pace Project No.: 30105219

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

BSK

Analytical
Laboratories
Engineering Laboratories

SUBCONTRACT ORDER

A3J0790

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical-Radiochem
1638 Roseytown Rd Ste 2,3,4
Greensburg, PA 15601
Phone: (724) 850-5600
Fax: (724) 722-5208
Turnaround (Days): Standard
QC Deliverables: I Std III IV

30105219

Sample ID	Samp Desc	Sample Date
A3J0790-01	MPWSP ML-1 Zone #2 (90-100 ft bgs)	10/07/2013 18:25 001

Matrix: Water

Analysis
EXT-Tritium

050AGX

Non preserved glass container

[Handwritten signature and notes]
9/36 BSK 10/01/13/1531 / UPS

MAR

Sample Condition Upon Receipt



Client Name: MAR 10/13/13
BAC BASIL

Project # 30105219

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1Z 93X 42113 5661 7325

Optional:
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 5 6 7

Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 33

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: <u>MAR 10-13-13</u>

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>✓</u>		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRD (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed <u>MAR</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

[Signature]

Quality Control Sample Performance Assessment



Analyst: SLA
 Date: 10/22/2013 Method: EPA 806.0
 Worklist: 17468 SOP: PCH-R-021
 Matrix: DW MB Sample ID: 345156

Method Blank Assessment						
Analyte	Activity	1.96 Sig. Uns.	MDC	Critical Value	Flag	Assessment
Tritium	2.5100	116.2000	203.9900	97.66000		

Laboratory Control Sample Assessment						
Analyte:	LCS	LCSD	LCS	LCSD	LCS	LCSD
Count Date:	10/18/13 0.04	10/19/13 1.26				
Spike I.D.:	10-003	10-023				
Spike Concentration (pCi/L):	2536.685	2536.683				
Volume Used (mL):	0.100	0.100				
Aliquot Volume (L, g, Fl):	0.100	0.100				
Target Conc. (pCi/L, g, Fl):	2536.685	2536.688				
1.96 Sigma Uncertainty (Calculated):	69.807	69.826				
Result (pCi/L, g, Fl):	2160.070	2310.030				
1.96 Sigma Uns.:	223.600	225.700				
% Recovery:	85.15%	91.10%				
Assessment:	Pass	Pass				
Upper % Recovery Limits:	125.00%	125.00%				
Lower % Recovery Limits:	75.00%	75.00%				

Duplicate Sample Assessment	
LCS/LCSD Y or N?	Y
Analyte:	Tritium
Sample I.D.:	LCS17468
Duplicate Sample I.D.:	LCS017468
Sample Result (pCi/L, g, Fl):	2310.0700
1.96 Sigma Uns.:	223.6000
Sample Duplicate Result (pCi/L, g, Fl):	2310.0500
Duplicate Sample 1.96 Sigma Uns.:	225.7000
Either results below MDC?	N
Relative Percent Difference:	6.74%
Assessment:	Pass
% RPD Limit:	25.00%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment			
Analyte:	Tritium	Tritium	
Sample Collection Date:	9/24/2013	10/8/2013	
Sample I.D.:	35109631004	3511126001	
Sample MS I.D.:	35109631004MS	3511126001MS	
Sample MSD I.D.:			
Spike I.D.:	10-003	10-003	
MS/MSD Decay Corrected Spike Conc. (pCi/L):	2546.281	2546.756	
Spike Volume Used in MS (mL):	0.20	0.20	
Spike Volume Used in MSD (mL):			
MS Aliquot (L, g, Fl):	0.1000	0.0500	
MS Target Conc (pCi/L, g, Fl):	5092.562	10163.026	
MSD Aliquot (L, g, Fl):			
MSD Target Conc. (pCi/L, g, Fl):			
MS Spike uncertainty (calculated):	159.740	278.873	
MSD Spike uncertainty (calculated):			
Sample Result:	117.980	54.420	
Sample 1.96 Sigma Uns.:	128.400	123.600	
Sample Matrix Spike Result:	4859.060	9351.770	
Sample MS 1.96 Sigma Uns.:	308.600	407.700	
Sample Matrix Spike Duplicate Result:			
Sample MSD 1.96 Sigma Uns.:			
MS % Recovery:	93.10%	91.48%	
MSD % Recovery:			
MS Assessment:	Pass	Pass	
MSD Assessment:			
MS/MSD Upper % Recovery Limits:	125.00%	125.00%	
MS/MSD Lower % Recovery Limits:	75.00%	75.00%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment			
Analyte:			
Sample I.D.:			
Sample MS I.D.:			
Sample MSD I.D.:			
Sample Matrix Spike Result:			
Sample Matrix Spike 1.96 Sigma Uns.:			
Sample Matrix Spike Duplicate Result:			
Sample Matrix Spike Duplicate 1.96 Sigma Uns.:			
MS/MSD Relative Percent Difference:			
MS/MSD RPD Assessment:			
% RPD Limit:			

Handwritten signature



1838 Roseytown Road

Greensburg, PA 15601

(724)850-5600

SAMPLE ACKNOWLEDGMENT

Samples Submitted By: BSK Analytical Laboratories
Client Project ID: A3J0790
Client PO#:

Pace Project Manager: Jacquelyn Collins
 Phone (724)850-5600
 jacquelyn.collins@pacelabs.com
Pace Analytical Project ID: 30105219
Samples Received: October 15, 2013 09:30 AM
Estimated Completion: November 05, 2013

CC: Mr. Michael Ng

Customer Sample ID	Pace Analytical Lab ID	Matrix	Date/Time Collected	Method
A3J0790-01	30105219001	Water	10/07/13 18:25	906.0 Tritium



1638 Roseytown Road
Greensburg, PA 15601
(724)850-5600

SAMPLE ACKNOWLEDGMENT

Analyte List

Customer Sample ID	Method	Compound	Reporting Limit Units
A3J0790-01	906.0 Tritium	Tritium	



Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Michael Ng
BSK Analytical Laboratories
1414 Stanislaus Street
Fresno CA 93706

Report Information:

Pace Project #: 10245866
Sample Receipt Date: 10/15/2013
Client Project #: A3J0790
Client Sub PO #: N/A
State Cert #: 01155CA

**REPORT OF
LABORATORY
ANALYSIS FOR
2,3,7,8-TCDD**

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 Drinking Water Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Brittany Hansen, your Pace Project Manager.

Report Summary:

This report contains results of one drinking water sample analyzed to determine 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613 by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

This report has been reviewed by:

October 28, 2013

Brittany Hansen, Project Manager
(612) 607-6429
(612) 607-6444 (fax)
brittany.hansen@pacelabs.com





Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Mississippi	MN00064
Alaska	MN00064	Montana	92
Arizona	AZ0014	Nebraska	
Arkansas	88-0680	Nevada	MN_00064_200
California	01155CA	New Jersey (NE)	MN002
Colorado	MN00064	New Mexico	MN00064
Connecticut	PH-0256	New York (NEL)	11647
EPA Region 5	WD-15J	North Carolina	27700
EPA Region 8	8TMS-Q	North Dakota	R-036
Florida (NELAP)	E87605	Ohio	4150
Georgia (DNR)	959	Oklahoma	D9922
Guam	959	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL)	MN300001-001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennessee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	03086	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444



Pace AnalyticalTM

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

BSK
Analytical
Laboratories
Engineering Laboratories

SUBCONTRACT ORDER

A3J0790

10245966

1158

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical-Dioxin
1700 Elm Street S.E. Suite 200
Minneapolis, MN 55414
Phone: (612) 607-1700
Fax: (612) 607-6444
Turnaround (Days): Standard
QC Deliverables: I Std III IV

Sample ID Samp Desc Sample Date

A3J0790-01 MPWSP ML-1 Zone #2 (90-100 ft bgs)

10/07/2013 18:25

Matrix: Water

Analysis
EXT-Dioxin-DW matrix, EPA 1613 2,3,7,8-TCDD


ILAG Ø

061

Released By: [Signature] Date: 10/4/13 1530 / Fed Ex
Received By: [Signature] Date: 10 15 13 0921

G-745

T- 33° , 12.3° C


	Document Name: Sample Condition Upon Receipt Form	Document Revised: 15 Sep 2013
	Document No.: F-MN-L-213-rev.07	Page 1 of 1 Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt **Client Name:** Bsk **Project #:** _____

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Tracking Number: see SRF

WO# : 10245866



10245866

Custody Seal on Cooler/Box Present? Yes No **Seals Intact?** Yes No **Optional:** Proj. Due Date: _____ Proj. Name: _____

Packing Material: Bubble Wrap Bubble Bags None Other: _____ **Temp Blank?** Yes No

Thermom. Used: 80512447 888A912167504 72337080 888A9132521491 **Type of Ice:** Wet Blue None Samples on Ice, cooling process has begun

Cooler Temp Read (°C): 3.4, 10.4 **Cooler Temp Corrected (°C):** 33.0.3 **Biological Tissue Frozen?** Yes No

Temp should be above freezing to 5°C **Correction Factor:** -1 **Date and Initials of Person Examining Contents:** CB 10 15 13

Question	Yes	No	N/A	Number	Comments
Chain of Custody Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.	
Chain of Custody Filled Out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.	
Chain of Custody Relinquished?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.	
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.	
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6.	
Rush Turn Around Time Requested?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7.	
Sufficient Volume?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	
Correct Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	
Pace Containers Used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Containers intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11.	
Sample Labels Match COC? Includes Date/Time/ID/Analysis Matrix:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12.	Time not on samples but on COC
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13. All containers needing preservation are found to be in compliance with EPA recommendation (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>12) Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-ORO (water)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.	<input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.	Sample # _____ Initial when completed: _____ Lot # of added preservative: _____
Trip Blank Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.	
Trip Blank Custody Seals Present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Pace Trip Blank Lot # (if purchased):					

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** Yes No

Person Contacted: _____ **Date/Time:** _____

Comments/Resolution: _____

Previously waived temp.



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Drinking Water Analysis Results
2,3,7,8-TCDD – USEPA Method 1613B

Tel: 612-607-1700
Fax: 612-607-6444

Sample ID.....A3J0790-01 MPWSP ML-1
Client..... BSK Analytical Laboratories
Lab Sample ID..... 10245866001

Date Collected.....10/07/2013
Date Received.....10/15/2013
Date Extracted.....10/18/2013

	Sample A3J0790-01 MPW	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	ND	ND	--	--
RL	5.0 pg/L	5.0 pg/L	--	--
2,3,7,8-TCDD Recovery	--	--	122%	132%
Spike Recovery Limit	--	--	73-146%	73-146%
RPD				7.4%
IS Recovery	61%	85%	86%	83%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	79%	101%	105%	109%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	R131021A_20	R131021A_06	R131021A_03	R131021A_04
Analysis Date	10/22/2013	10/21/2013	10/21/2013	10/21/2013
Analysis Time	02:44	18:43	17:00	17:34
Analyst	SMT	SMT	SMT	SMT
Volume	1.024L	1.025L	1.011L	1.018L
Dilution	NA	NA	NA	NA
ICAL Date	07/19/2013	07/19/2013	07/19/2013	07/19/2013
CCAL Filename	R131021A_02	R131021A_02	R131021A_02	R131021A_02



Weck Laboratories, Inc.
 Analytical Laboratory Services - Since 1954

Certificate of Analysis

Report Date: 11/06/13 14:00
Received Date: 10/15/13 15:25
Turnaround Time: Normal
Phones: (559) 497-2888
Fax: (559) 485-6935
P.O. #:

Project: A3J0790

Attn: Michael Ng

Client: BSK Analytical Laboratories
 550 West Locust Avenue
 Fresno, CA 93650

Dear Michael Ng :

Enclosed are the results of analyses for samples received 10/15/2013 with the Chain of Custody document. The samples were received in good condition, at 2.4 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab Sample ID: 3J15074-01	Sample ID: A3J0790-01	Matrix: Water								
Sampled by: Client	Sampled: 10/07/13 18:25									
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Lithium, Total	34	1.4	10	ug/l	1	EPA 200.7	11/4/13	11/5/13 10:23	W3K0097	
Iodide, Dissolved	180	2.1	50	ug/l	5	EPA 9056A	11/5/13	11/5/13 19:57	W3K0192	Q-4



Certificate of Analysis

Quality Control Section

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

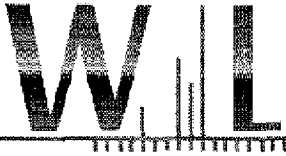
Batch W3K0192 - EPA 9056A

Blank (W3K0192-BLK1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved		ND		ug/l					
LCS (W3K0192-BS1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved		35.3		ug/l	40.0	88	85-115		
Matrix Spike (W3K0192-MS1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57			
Source: 3J15074-01					Spike Level	%REC	%REC Limits	RPD	RPD Limit
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved	179	368		ug/l	200	94	80-120		
Matrix Spike Dup (W3K0192-MSD1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57			
Source: 3J15074-01					Spike Level	%REC	%REC Limits	RPD	RPD Limit
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved	179	355		ug/l	200	88	80-120	3	20

Metals by EPA 200 Series Methods - Quality Control

Batch W3K0097 - EPA 200.7

Blank (W3K0097-BLK1)					Prepared: 11/04/13	Analyzed: 11/05/13 10:15			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total		1.70		ug/l					
LCS (W3K0097-BS1)					Prepared: 11/04/13	Analyzed: 11/05/13 10:18			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total		988		ug/l	1000	99	85-115		
LCS Dup (W3K0097-BSD1)					Prepared: 11/04/13	Analyzed: 11/05/13 10:21			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total		992		ug/l	1000	99	85-115	0.3	30
Duplicate (W3K0097-DUP1)					Prepared: 11/04/13	Analyzed: 11/05/13 10:28			
Source: 3J17013-01					Spike Level	%REC	%REC Limits	RPD	RPD Limit
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total	144	134		ug/l				8	30



Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1894

Certificate of Analysis

Notes:

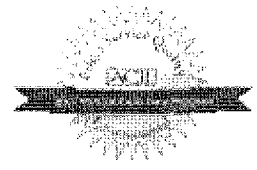
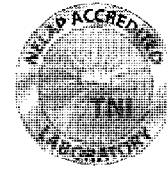
The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services. The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL). For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Kim G Tu (Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

- J Estimated conc. detected <MRL and >MDL.
- Q-14 This analysis was requested by the client after the holding time was exceeded.
- ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
- Sub Subcontracted analysis, original report enclosed.
- DL Method Detection Limit
- RL Method Reporting Limit
- MDA Minimum Detectable Activity
- NR Not Reportable



Weck Laboratories, Inc.

Environmental and Analytical Services - Since 1964

Sample Receipt Acknowledgement

WORK ORDER: 3J15074

Printed: 10/16/2013 3:28:22PM

Client: BSK Analytical Laboratories
Project: MetalsProject Manager: Kim G Tu
Project Number: A3J0790**Report To:**BSK Analytical Laboratories
Michael Ng
550 West Locust Avenue
Fresno, CA 93650
Phone: (559) 497-2888
Fax: (559) 485-6935**Invoice To:**BSK Analytical Laboratories
Accounts Payable - Anise Foote
550 West Locust Avenue
Fresno, CA 93650
Phone: (559) 497-2888
Fax: (559) 485-6935**Date Due:** 10/29/13 15:00 (10 day TAT)

Received By: Adrian Talabis

Date Received: 10/15/13 15:25

Logged In By: Adrian Talabis

Date Logged In: 10/15/13 16:15

Samples Received at:	2.4°C	All containers intact:	Yes	Chain of custody completed	Yes
Number of Ice chests/packages:	No	Custody seals present:		Sample labels & COC agree	Yes
Appropriate Sample Containers:		Custody seals intact:		Samples preserved properly	Yes
		Samples received on ice:		Sample volume sufficient	Yes
		Custody Seals:	No	Sufficient holding time for all tests	Yes

Analysis	TAT	Expires	Comments
3J15074-01 A3J0790-01 [Water] Sampled 10/07/13 18:25 Pacific			
Iodide water 9056M	10	11/04/13 18:25	
200.7 Li_diss	10	04/05/14 18:25	

Comments:

10/16/2013

Authorized Signature

Date

Note:

If any of the information included in this sample receipt acknowledgement is incorrect (sample information, analysis, etc), please contact the lab at (626) 336-2139. Thank you.

BSK
Analytical
Laboratories
Engineering Laboratories

SUBCONTRACT ORDER

A3J0790

3515074

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E Clark Avenue
City of Industry, CA 91745-1396
Phone : (626) 336-2139
Fax: (626) 336-2634
Turnaround (Days): Standard
QC Deliverables: I (S) III IV

Sample ID	Samp Desc	Sample Date
A3J0790-01	MPWSP ML-1 Zone #2 (90-100 ft bgs)	10/07/2013 18:25

Matrix: Water

Analysis

EXT-Iodide

EXT-Miscellaneous

500P0

Dissolved

Lithium

2.400

Released By: *[Signature]* Date: *10/14/13 1730* Received By: *[Signature]* Date: *10-15-13*

Released By: *Ontrac* Date: *10-15-13* Received By: *[Signature]* Date: *15:25*



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Travis Peterson
California American Water
836 Carmel Ave.
Monterey, CA 93940

RE: Report for A3L1789 Water Quality Analysis

Dear Travis Peterson,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 12/20/2013. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Michael Ng, Project Manager

If additional clarification of any information is required, please contact your Project Manager, Michael Ng, at (800) 877-8310 or (559) 497-2888 x118.



Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: California American Water
Report To: Travis Peterson
Project #: Water Quality Analysis - MPWSP
Received: 12/20/2013 - 15:00
Report Due: 1/08/2014

Invoice To: California American Water
Invoice Attn: susan.jacobson@amwater.com
Project PO#: -

Sample Receipt Conditions

<p>Cooler: Default Cooler Temperature on Receipt °C: 0.4</p>	<p>Containers Intact COC/Labels Agree Received On Wet Ice Received On Blue Ice Sample(s) arrived at lab on same day sampled. Packing Material - Other Sample(s) were received in temperature range. Initial receipt at BSK-FAL</p>
---	---

Detailed Narrative

Chain of Custody Notes

Date: 12-24-13
Initials: MSN

Note: Samples were received past holding times for some tests. Per Sarp Sekeroglu, okay to analyze the tests past holding time.

Chain of Custody Notes

Date: 02-11-14
Initials: MSN

Note: Dissolved Sodium was over-range for this sample and there was insufficient volume left to reanalyze for Dissolved Sodium. Per Sarp Sekeroglu and Andrew Kieta, okay to analyze for Total Sodium in place of Dissolved Sodium.

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- B2.0 Analyte present in the method blank above the method detection limit (MDL). Laboratory does not determine batch acceptance on detections below the reporting limit (RL).
- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- BS3.0 BS/BSD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- DL1.0 Sample required a dilution due to the matrix or high concentration of a non-target analyte.
- HT1.0 Holding time exceeded. Sample was received at the lab past holding time.
- HT1.6 Holding time exceeded. The holding time for this analysis is a recommendation and is not mandated by any state or federal agency.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- MS1.4 Matrix spike recovery data unreliable due to significant parent sample concentration relative to fortification level (>4x).

Report Distribution

Recipient(s)	Report Format
Travis Peterson	Final.rpt

Certificate of Analysis

Sample ID: A3L1789-01
Sampled By: Nathan Reynolds
Sample Description: ML-2 Zone #1 (167-177 ft bgs)

Sample Date - Time: 12/17/13 - 16:45
Matrix: Water
Sample Type: Grab

Field Data: pH=6.86 Temp=17.3 °C Cond.=34730 umho Turb. =1.68 ntu

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Alkalinity as CaCO3	SM 2320 B	750	30	mg/L	10	A315355	12/27/13	12/27/13	
Bicarbonate as CaCO3	SM 2320 B	750	30	mg/L	10	A315355	12/27/13	12/27/13	
Carbonate as CaCO3	SM 2320 B	ND	30	mg/L	10	A315355	12/27/13	12/27/13	
Hydroxide as CaCO3	SM 2320 B	ND	30	mg/L	10	A315355	12/27/13	12/27/13	
Ammonia as N	SM 4500-NH3 G	14	0.10	mg/L	1	A315240	12/24/13	12/27/13	
Bromide	EPA 300.1	45	1.0	mg/L	200	A315371	12/27/13	12/27/13	
Surrogate: Dichloroacetate	EPA 300.1	100 %	<i>Acceptable range: 90-115 %</i>						
Chloride	EPA 300.0	12000	500	mg/L	500	A315134	12/23/13	12/23/13	
Color, Apparent	SM 1210 B	45	1.0	CU	1	A315108	12/20/13 17:55	12/20/13	HT1.0
Conductivity @ 25C	SM 2510 B	31000	1.0	umhos/cm	1	A315183	12/24/13	12/24/13	
Fluoride	EPA 300.0	ND	20	mg/L	200	A315318	12/26/13	12/26/13	DL1.0
Mass Balance-Anions		390		meq/L					
Mass Balance-Dissolved Cations		380		meq/L					
MBAS, Calculated as LAS, mol wt 340	SM 5540 C	ND	0.10	mg/L	2	A315233	12/24/13 08:30	12/24/13	HT1.0
Nitrate as NO3	EPA 300.0	ND	500	mg/L	500	A315134	12/23/13 20:25	12/23/13	DL1.0, HT1.0
Nitrite as N	EPA 300.0	ND	25	mg/L	500	A315134	12/23/13 20:25	12/23/13	DL1.0, HT1.0
Threshold Odor	SM 2150 B	1.0	1.0	T.O.N.	1	A315108	12/20/13 17:55	12/20/13	HT1.6
Orthophosphate as P	SM 4500-P E	0.20	0.010	mg/L	1	A315135	12/20/13 18:54	12/20/13	HT1.0
pH (1)	SM 4500-H+ B	7.7		pH Units	1	A315183	12/24/13	12/24/13	
pH Temperature in °C		20.1							
Phosphorus - Dissolved (1)	EPA 365.4	ND	0.10	mg/L	1	A315207	12/23/13	12/26/13	
Sulfate as SO4	EPA 300.0	1000	1000	mg/L	500	A315134	12/23/13	12/23/13	
Total Dissolved Solids	SM 2540C	19000	5.0	mg/L	1	A315189	12/23/13	12/27/13	
Total Kjeldahl Nitrogen - Dissolved (1)	EPA 351.2	14	1.0	mg/L	1	A315207	12/23/13	12/27/13	
Total Oxidizable Nitrogen, as N - Dissolved (1)	SM 4500-NO3 F	ND	0.10	mg/L	1	A315381	12/30/13	12/30/13	
Turbidity	SM 2130 B	6.0	0.10	NTU	1	A315108	12/20/13 17:55	12/20/13	HT1.0

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.7	0.082	0.050	mg/L	1	A315185	12/23/13	12/27/13	
Arsenic	EPA 200.8	ND	10	ug/L	5	A315185	12/23/13	12/30/13	
Barium - Dissolved (1)	EPA 200.7	0.074	0.050	mg/L	1	A315238	12/24/13	12/30/13	
Boron - Dissolved (1)	EPA 200.7	1.7	0.10	mg/L	1	A315238	12/24/13	12/30/13	
Calcium	EPA 200.7	570	0.10	mg/L	1	A315185	12/23/13	12/27/13	
Calcium - Dissolved (1)	EPA 200.7	620	0.10	mg/L	1	A315238	12/24/13	12/30/13	
Copper	EPA 200.8	38	25	ug/L	5	A315185	12/23/13	12/30/13	
Hardness as CaCO3	SM 2340B	4800	0.41	mg/L					
Iron	EPA 200.7	3.0	0.030	mg/L	1	A315185	12/23/13	12/27/13	
Iron - Dissolved (1)	EPA 200.7	ND	0.030	mg/L	1	A315238	12/24/13	12/30/13	

Certificate of Analysis

Sample ID: A3L1789-01
Sampled By: Nathan Reynolds
Sample Description: ML-2 Zone #1 (167-177 ft bgs)

Sample Date - Time: 12/17/13 - 16:45
Matrix: Water
Sample Type: Grab

Field Data: pH=6.86 Temp=17.3 °C Cond.=34730 umho Turb. =1.68 ntu

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Magnesium	EPA 200.7	820	0.10	mg/L	1	A315185	12/23/13	12/27/13	
Magnesium - Dissolved (1)	EPA 200.7	900	0.10	mg/L	1	A315238	12/24/13	12/30/13	
Manganese	EPA 200.7	2.4	0.010	mg/L	1	A315185	12/23/13	12/27/13	
Manganese - Dissolved (1)	EPA 200.7	2.6	0.010	mg/L	1	A315238	12/24/13	12/30/13	
Potassium - Dissolved (1)	EPA 200.7	130	2.0	mg/L	1	A315238	12/24/13	12/30/13	
Silica (SiO2) - Dissolved (1)	EPA 200.7	34	0.20	mg/L	1	A315238	12/24/13	12/30/13	
Sodium - Dissolved (1)	EPA 200.7	6200	10	mg/L	10	A401747	02/11/14	02/12/14	
Strontium - Dissolved (1)	EPA 200.8	7900	5.0	ug/L	5	A315238	12/24/13	01/03/14	
Zinc	EPA 200.7	ND	0.050	mg/L	1	A315185	12/23/13	12/27/13	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A315261	12/24/13	12/25/13	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A315261	12/24/13	12/25/13	
Surrogate: TCMX	EPA 504.1	111 %	Acceptable range: 70-130 %						
<u>Organohalide Pesticides and PCBs by GC-ECD</u>									
Aldrin	EPA 505	ND	0.075	ug/L	1	A315261	12/24/13	12/25/13	
Chlordane	EPA 505	ND	0.10	ug/L	1	A315261	12/24/13	12/25/13	
Chlorothalonil	EPA 505	ND	5.0	ug/L	1	A315261	12/24/13	12/25/13	
Dieldrin	EPA 505	ND	0.020	ug/L	1	A315261	12/24/13	12/25/13	
Endrin	EPA 505	ND	0.10	ug/L	1	A315261	12/24/13	12/25/13	
Heptachlor	EPA 505	ND	0.010	ug/L	1	A315261	12/24/13	12/25/13	
Heptachlor Epoxide	EPA 505	ND	0.010	ug/L	1	A315261	12/24/13	12/25/13	
Hexachlorobenzene	EPA 505	ND	0.50	ug/L	1	A315261	12/24/13	12/25/13	
Hexachlorocyclopentadiene	EPA 505	ND	1.0	ug/L	1	A315261	12/24/13	12/25/13	
Lindane	EPA 505	ND	0.20	ug/L	1	A315261	12/24/13	12/25/13	
Methoxychlor	EPA 505	ND	10	ug/L	1	A315261	12/24/13	12/25/13	
PCB Aroclor Screen	EPA 505	ND	0.50	ug/L	1	A315261	12/24/13	12/25/13	
Toxaphene	EPA 505	ND	1.0	ug/L	1	A315261	12/24/13	12/25/13	
Trifluralin	EPA 505	ND	1.0	ug/L	1	A315261	12/24/13	12/25/13	
Surrogate: TCMX	EPA 505	111 %	Acceptable range: 70-130 %						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A315300	12/26/13	12/28/13	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A315300	12/26/13	12/28/13	
2,4-D	EPA 515.3	ND	10	ug/L	1	A315300	12/26/13	12/28/13	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A315300	12/26/13	12/28/13	
Dalapon	EPA 515.3	ND	10	ug/L	1	A315300	12/26/13	12/28/13	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A315300	12/26/13	12/28/13	

Certificate of Analysis

Sample ID: A3L1789-01
Sampled By: Nathan Reynolds
Sample Description: ML-2 Zone #1 (167-177 ft bgs)

Sample Date - Time: 12/17/13 - 16:45
Matrix: Water
Sample Type: Grab

Field Data: pH=6.86 Temp=17.3 °C Cond.=34730 umho Turb. =1.68 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chlorinated Acid Herbicides by GC-ECD									
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A315300	12/26/13	12/28/13	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A315300	12/26/13	12/28/13	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A315300	12/26/13	12/28/13	
Surrogate: DCPAA	EPA 515.3	84 %	<i>Acceptable range: 70-130 %</i>						
Volatile Organics by GC-MS									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A315401	12/30/13	12/30/13	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A315401	12/30/13	12/30/13	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A315401	12/30/13	12/30/13	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A315401	12/30/13	12/30/13	
Acetone	EPA 524.2	ND	10	ug/L	1	A315401	12/30/13	12/30/13	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	

Certificate of Analysis

Sample ID: A3L1789-01
Sampled By: Nathan Reynolds
Sample Description: ML-2 Zone #1 (167-177 ft bgs)

Sample Date - Time: 12/17/13 - 16:45
Matrix: Water
Sample Type: Grab

Field Data: pH=6.86 Temp=17.3 °C Cond.=34730 umho Turb. =1.68 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A315401	12/30/13	12/30/13	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	BS1.0, CV0.0
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A315401	12/30/13	12/30/13	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A315401	12/30/13	12/30/13	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A315401	12/30/13	12/30/13	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A315401	12/30/13	12/30/13	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	93 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	102 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A315174	12/23/13	12/24/13	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A315174	12/23/13	12/24/13	

Certificate of Analysis

Sample ID: A3L1789-01
Sampled By: Nathan Reynolds
Sample Description: ML-2 Zone #1 (167-177 ft bgs)

Sample Date - Time: 12/17/13 - 16:45
Matrix: Water
Sample Type: Grab

Field Data: pH=6.86 Temp=17.3 °C Cond.=34730 umho Turb. =1.68 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Semi-Volatile Organics by GC-MS</u>									
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A315174	12/23/13	12/24/13	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A315174	12/23/13	12/24/13	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A315174	12/23/13	12/24/13	
Bromacil	EPA 525.2	ND	10	ug/L	1	A315174	12/23/13	12/24/13	BS1.0
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A315174	12/23/13	12/24/13	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A315174	12/23/13	12/24/13	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A315174	12/23/13	12/24/13	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A315174	12/23/13	12/24/13	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A315174	12/23/13	12/24/13	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A315174	12/23/13	12/24/13	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A315174	12/23/13	12/24/13	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A315174	12/23/13	12/24/13	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A315174	12/23/13	12/24/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	96 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A315375	12/27/13	12/28/13	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A315375	12/27/13	12/28/13	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A315375	12/27/13	12/28/13	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A315375	12/27/13	12/28/13	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A315375	12/27/13	12/28/13	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A315375	12/27/13	12/28/13	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A315375	12/27/13	12/28/13	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A315375	12/27/13	12/28/13	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A315140	12/21/13	12/21/13	
Surrogate: AMPA	EPA 547	86 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A315232	12/23/13	12/26/13	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A315144	12/21/13	12/26/13	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A315134

Prepared: 12/23/2013

Prep Method: Method Specific Preparation

Analyst: EMH

Blank (A315134-BLK1)

Chloride	ND	1.0	mg/L							12/23/13	
Nitrate as NO3	ND	1.0	mg/L							12/23/13	
Nitrite as N	ND	0.050	mg/L							12/23/13	
Sulfate as SO4	ND	2.0	mg/L							12/23/13	

Blank Spike (A315134-BS1)

Chloride	50	1.0	mg/L	50		99	90-110			12/23/13	
Nitrate as NO3	49	1.0	mg/L	50		98	90-110			12/23/13	
Nitrite as N	0.49	0.050	mg/L	0.50		98	90-110			12/23/13	
Sulfate as SO4	49	2.0	mg/L	50		99	90-110			12/23/13	

Blank Spike Dup (A315134-BSD1)

Chloride	49	1.0	mg/L	50		99	90-110	0	20	12/23/13	
Nitrate as NO3	49	1.0	mg/L	50		98	90-110	0	20	12/23/13	
Nitrite as N	0.49	0.050	mg/L	0.50		98	90-110	0	20	12/23/13	
Sulfate as SO4	49	2.0	mg/L	50		98	90-110	0	20	12/23/13	

Matrix Spike (A315134-MS1), Source: A3L1709-02

Chloride	110	2.0	mg/L	100	9.6	102	80-120			12/23/13	
Nitrate as NO3	100	2.0	mg/L	100	ND	101	80-120			12/23/13	
Nitrite as N	0.75	0.10	mg/L	1.0	ND	75	80-120			12/23/13	MS1.0 Low
Sulfate as SO4	140	4.0	mg/L	100	41	101	80-120			12/23/13	

Matrix Spike (A315134-MS2), Source: A3L1697-01

Chloride	110	2.0	mg/L	100	5.6	102	80-120			12/23/13	
Nitrate as NO3	210	2.0	mg/L	100	110	98	80-120			12/23/13	
Nitrite as N	0.97	0.10	mg/L	1.0	ND	97	80-120			12/23/13	
Sulfate as SO4	130	4.0	mg/L	100	24	101	80-120			12/23/13	

Matrix Spike Dup (A315134-MSD1), Source: A3L1709-02

Chloride	110	2.0	mg/L	100	9.6	101	80-120	1	20	12/23/13	
Nitrate as NO3	100	2.0	mg/L	100	ND	100	80-120	1	20	12/23/13	
Nitrite as N	0.74	0.10	mg/L	1.0	ND	74	80-120	1	20	12/23/13	MS1.0 Low
Sulfate as SO4	140	4.0	mg/L	100	41	99	80-120	1	20	12/23/13	

Matrix Spike Dup (A315134-MSD2), Source: A3L1697-01

Chloride	110	2.0	mg/L	100	5.6	102	80-120	1	20	12/23/13	
Nitrate as NO3	210	2.0	mg/L	100	110	99	80-120	1	20	12/23/13	
Nitrite as N	0.98	0.10	mg/L	1.0	ND	98	80-120	1	20	12/23/13	
Sulfate as SO4	130	4.0	mg/L	100	24	102	80-120	1	20	12/23/13	

EPA 300.0 - Quality Control

Batch: A315318

Prepared: 12/26/2013

Prep Method: Method Specific Preparation

Analyst: n.a.

Blank (A315318-BLK1)

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A315318

Prepared: 12/26/2013

Prep Method: Method Specific Preparation

Analyst: n.a.

Blank (A315318-BLK1)

Fluoride ND 0.10 mg/L 12/26/13

Blank Spike (A315318-BS1)

Fluoride 0.49 0.10 mg/L 0.50 98 90-110 12/26/13

Blank Spike Dup (A315318-BSD1)

Fluoride 0.50 0.10 mg/L 0.50 100 90-110 2 10 12/26/13

Matrix Spike (A315318-MS1), Source: A3L1709-02

Fluoride 1.1 0.20 mg/L 1.0 ND 99 80-120 12/26/13

Matrix Spike (A315318-MS2), Source: A3L1860-02

Fluoride 1.3 0.20 mg/L 1.0 0.27 98 80-120 12/26/13

Matrix Spike Dup (A315318-MSD1), Source: A3L1709-02

Fluoride 1.1 0.20 mg/L 1.0 ND 97 80-120 2 10 12/26/13

Matrix Spike Dup (A315318-MSD2), Source: A3L1860-02

Fluoride 1.3 0.20 mg/L 1.0 0.27 102 80-120 3 10 12/26/13

EPA 300.1 - Quality Control

Batch: A315371

Prepared: 12/27/2013

Prep Method: Method Specific Preparation

Analyst: TRL

Blank (A315371-BLK1)

Bromide ND 0.0050 mg/L 12/27/13

Surrogate: Dichloroacetate 0.495 0.50 99 90-115 12/27/13

Blank Spike (A315371-BS1)

Bromide 0.19 0.0050 mg/L 0.20 96 85-115 12/27/13

Surrogate: Dichloroacetate 0.492 0.50 98 90-115 12/27/13

Blank Spike Dup (A315371-BSD1)

Bromide 0.19 0.0050 mg/L 0.20 97 85-115 1 10 12/27/13

Surrogate: Dichloroacetate 0.494 0.50 99 90-115 12/27/13

Matrix Spike (A315371-MS1), Source: A3L1963-02

Bromide 4.3 0.10 mg/L 2.0 2.4 93 75-125 12/27/13

Surrogate: Dichloroacetate 9.63 10 96 90-115 12/27/13

Matrix Spike (A315371-MS2), Source: A3L2009-03

Bromide 0.50 0.020 mg/L 0.40 0.13 93 75-125 12/28/13

Surrogate: Dichloroacetate 1.89 2.0 95 90-115 12/28/13

Matrix Spike Dup (A315371-MSD1), Source: A3L1963-02

Bromide 4.3 0.10 mg/L 2.0 2.4 94 75-125 0 10 12/27/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.1 - Quality Control

Batch: A315371

Prepared: 12/27/2013

Prep Method: Method Specific Preparation

Analyst: TRL

Matrix Spike Dup (A315371-MSD1), Source: A3L1963-02

Surrogate: Dichloroacetate 9.74 10 97 90-115 12/27/13

Matrix Spike Dup (A315371-MSD2), Source: A3L2009-03

Bromide 0.51 0.020 mg/L 0.40 0.13 94 75-125 1 10 12/28/13
 Surrogate: Dichloroacetate 1.96 2.0 98 90-115 12/28/13

EPA 351.2 - Quality Control

Batch: A315207

Prepared: 12/23/2013

Prep Method: Digestion

Analyst: KKC

Blank (A315207-BLK2)

Total Kjeldahl Nitrogen - Dissolved (1) ND 1.0 mg/L 12/27/13

Blank Spike (A315207-BS2)

Total Kjeldahl Nitrogen - Dissolved (1) 9.9 1.0 mg/L 10 99 90-110 12/27/13

Blank Spike Dup (A315207-BSD2)

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 105 90-110 5 10 12/27/13

Matrix Spike (A315207-MS2), Source: A3L1656-01

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 ND 100 90-110 12/27/13

Matrix Spike Dup (A315207-MSD2), Source: A3L1656-01

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 ND 99 90-110 2 10 12/27/13

EPA 365.4 - Quality Control

Batch: A315207

Prepared: 12/23/2013

Prep Method: Digestion

Analyst: KKC

Blank (A315207-BLK1)

Phosphorus - Dissolved (1) ND 0.10 mg/L 12/26/13

Blank Spike (A315207-BS1)

Phosphorus - Dissolved (1) 9.3 0.10 mg/L 10 93 90-110 12/26/13

Blank Spike Dup (A315207-BSD1)

Phosphorus - Dissolved (1) 9.9 0.10 mg/L 10 99 90-110 7 10 12/26/13

Matrix Spike (A315207-MS1), Source: A3L1656-01

Phosphorus - Dissolved (1) 9.5 0.10 mg/L 10 ND 95 90-110 12/26/13

Matrix Spike Dup (A315207-MSD1), Source: A3L1656-01

Phosphorus - Dissolved (1) 9.8 0.10 mg/L 10 ND 98 90-110 3 10 12/26/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2120 B - Quality Control

Batch: A315108

Prepared: 12/20/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A315108-BLK1)

Color, Apparent ND 1.0 CU 12/20/13

Duplicate (A315108-DUP1), Source: A3L1654-01

Color, Apparent 5.0 1.0 CU 5.0 0 20 12/20/13

Duplicate (A315108-DUP2), Source: A3L1715-01

Color, Apparent 5.0 1.0 CU 5.0 0 20 12/20/13

SM 2130 B - Quality Control

Batch: A315108

Prepared: 12/20/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A315108-BLK1)

Turbidity ND 0.10 NTU 12/20/13

Duplicate (A315108-DUP1), Source: A3L1654-01

Turbidity ND 0.10 NTU ND 20 12/20/13

Duplicate (A315108-DUP2), Source: A3L1715-01

Turbidity ND 0.10 NTU ND 20 12/20/13

SM 2150 B - Quality Control

Batch: A315108

Prepared: 12/20/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A315108-BLK1)

Threshold Odor ND 1.0 T.O.N. 12/20/13

Duplicate (A315108-DUP1), Source: A3L1654-01

Threshold Odor 1.0 1.0 T.O.N. 1.0 0 20 12/20/13

Duplicate (A315108-DUP2), Source: A3L1715-01

Threshold Odor 1.0 1.0 T.O.N. 1.0 0 20 12/20/13

SM 2320 B - Quality Control

Batch: A315355

Prepared: 12/27/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A315355-BLK1)

Alkalinity as CaCO3 ND 3.0 mg/L 12/27/13
 Bicarbonate as CaCO3 ND 3.0 mg/L 12/27/13
 Carbonate as CaCO3 ND 3.0 mg/L 12/27/13
 Hydroxide as CaCO3 ND 3.0 mg/L 12/27/13

Blank Spike (A315355-BS1)

Alkalinity as CaCO3 96 3.0 mg/L 100 96 80-120 12/27/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2320 B - Quality Control

Batch: A315355

Prepared: 12/27/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank Spike Dup (A315355-BSD1)

Alkalinity as CaCO3	100	3.0	mg/L	100		101	80-120	5	20	12/27/13	
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Duplicate (A315355-DUP1), Source: A3L1932-01

Alkalinity as CaCO3	270	3.0	mg/L		270			2	10	12/27/13	
Bicarbonate as CaCO3	270	3.0	mg/L		270			2	10	12/27/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	12/27/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	12/27/13	

Duplicate (A315355-DUP2), Source: A3L1949-01

Alkalinity as CaCO3	110	3.0	mg/L		100			3	10	12/27/13	
Bicarbonate as CaCO3	110	3.0	mg/L		100			3	10	12/27/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	12/27/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	12/27/13	

SM 2510 B - Quality Control

Batch: A315183

Prepared: 12/24/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A315183-BLK1)

Conductivity @ 25C	ND	1.0	umhos/cm							12/24/13	
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Duplicate (A315183-DUP1), Source: A3L1704-01

Conductivity @ 25C	780	1.0	umhos/cm		790			1	20	12/24/13	
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Duplicate (A315183-DUP2), Source: A3L1860-02

Conductivity @ 25C	350	1.0	umhos/cm		350			0	20	12/24/13	
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SM 2540C - Quality Control

Batch: A315189

Prepared: 12/23/2013

Prep Method: Method Specific Preparation

Analyst: DEH

Blank (A315189-BLK1)

Total Dissolved Solids	ND	5.0	mg/L							12/27/13	
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Blank Spike (A315189-BS1)

Total Dissolved Solids	990	5.0	mg/L	1000		99	70-130			12/27/13	
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Duplicate (A315189-DUP1), Source: A3L1658-01

Total Dissolved Solids	370	5.0	mg/L		370			1	20	12/27/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-H+ B - Quality Control

Batch: A315183

Prepared: 12/24/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Duplicate (A315183-DUP1), Source: A3L1704-01

pH (1)	7.8		pH Units		7.8			0	20	12/24/13	
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Duplicate (A315183-DUP2), Source: A3L1860-02

pH (1)	7.8		pH Units		7.8			0	20	12/24/13	
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SM 4500-NH3 G - Quality Control

Batch: A315240

Prepared: 12/24/2013

Prep Method: Ammonia Distillation

Analyst: KKC

Blank (A315240-BLK1)

Ammonia as N	ND	0.10	mg/L							12/27/13	B2.0
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Blank Spike (A315240-BS1)

Ammonia as N	9.8	0.10	mg/L	10		98	80-120			12/27/13	
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Blank Spike Dup (A315240-BSD1)

Ammonia as N	9.7	0.10	mg/L	10		97	80-120	1	20	12/27/13	
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Matrix Spike (A315240-MS1), Source: A3L1407-01

Ammonia as N	9.5	0.10	mg/L	10	0.38	91	80-120			12/27/13	
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Matrix Spike (A315240-MS2), Source: A3L1480-06

Ammonia as N	10	0.10	mg/L	10	0.57	96	80-120			12/28/13	
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Matrix Spike Dup (A315240-MSD1), Source: A3L1407-01

Ammonia as N	9.4	0.10	mg/L	10	0.38	90	80-120	1	20	12/27/13	
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Matrix Spike Dup (A315240-MSD2), Source: A3L1480-06

Ammonia as N	9.7	0.10	mg/L	10	0.57	91	80-120	5	20	12/28/13	
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SM 4500-NO3 F - Quality Control

Batch: A315381

Prepared: 12/30/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A315381-BLK1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	ND	0.10	mg/L							12/30/13	
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Blank Spike (A315381-BS1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	10	0.10	mg/L	10		104	80-120			12/30/13	
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Blank Spike Dup (A315381-BSD1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	10	0.10	mg/L	10		102	80-120	2	20	12/30/13	
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Matrix Spike (A315381-MS1), Source: A3L1608-03

Total Oxidizable Nitrogen, as N - Dissolved (1)	23	1.0	mg/L	10	14	95	80-120			12/30/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-NO3 F - Quality Control

Batch: A315381

Prepared: 12/30/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Matrix Spike (A315381-MS2), Source: A3L1789-01

Total Oxidizable Nitrogen, as N - Dissolved (1) 9.4 0.10 mg/L 10 ND 93 80-120 12/30/13

Matrix Spike Dup (A315381-MSD1), Source: A3L1608-03

Total Oxidizable Nitrogen, as N - Dissolved (1) 23 1.0 mg/L 10 14 90 80-120 2 20 12/30/13

Matrix Spike Dup (A315381-MSD2), Source: A3L1789-01

Total Oxidizable Nitrogen, as N - Dissolved (1) 9.5 0.10 mg/L 10 ND 95 80-120 1 20 12/30/13

SM 4500-P E - Quality Control

Batch: A315135

Prepared: 12/20/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A315135-BLK1)

Orthophosphate as P ND 0.010 mg/L 12/20/13

Blank Spike (A315135-BS1)

Orthophosphate as P 0.25 0.010 mg/L 0.25 100 90-110 12/20/13

Blank Spike Dup (A315135-BSD1)

Orthophosphate as P 0.25 0.010 mg/L 0.25 100 90-110 0 20 12/20/13

Matrix Spike (A315135-MS1), Source: A3L1716-01

Orthophosphate as P 0.33 0.010 mg/L 0.25 0.079 100 80-120 12/20/13

Matrix Spike Dup (A315135-MSD1), Source: A3L1716-01

Orthophosphate as P 0.34 0.010 mg/L 0.25 0.079 103 80-120 2 20 12/20/13

SM 5540 C - Quality Control

Batch: A315233

Prepared: 12/24/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A315233-BLK1)

MBAS, Calculated as LAS, mol wt 340 ND 0.050 mg/L 12/24/13

Blank Spike (A315233-BS1)

MBAS, Calculated as LAS, mol wt 340 0.91 0.050 mg/L 1.0 91 80-120 12/24/13

Blank Spike Dup (A315233-BSD1)

MBAS, Calculated as LAS, mol wt 340 0.95 0.050 mg/L 1.0 95 80-120 4 20 12/24/13

Matrix Spike (A315233-MS1), Source: A3L1866-01

MBAS, Calculated as LAS, mol wt 340 1.0 0.050 mg/L 1.0 ND 101 80-120 12/24/13

Matrix Spike Dup (A315233-MSD1), Source: A3L1866-01

MBAS, Calculated as LAS, mol wt 340 0.95 0.050 mg/L 1.0 ND 95 80-120 7 20 12/24/13

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A315185

Prepared: 12/23/2013

Prep Method: EPA 200.2

Analyst: NRE

Blank (A315185-BLK2)

Aluminum	ND	0.050	mg/L							12/27/13	
Calcium	ND	0.10	mg/L							12/27/13	
Iron	ND	0.030	mg/L							12/27/13	
Magnesium	ND	0.10	mg/L							12/27/13	
Manganese	ND	0.010	mg/L							12/27/13	
Zinc	ND	0.050	mg/L							12/27/13	

Blank Spike (A315185-BS2)

Aluminum	0.19	0.050	mg/L	0.20		94	85-115			12/27/13	
Calcium	9.5	0.10	mg/L	10		95	85-115			12/27/13	
Iron	1.9	0.030	mg/L	2.0		95	85-115			12/27/13	
Magnesium	9.3	0.10	mg/L	10		93	85-115			12/27/13	
Manganese	0.19	0.010	mg/L	0.20		93	85-115			12/27/13	
Zinc	0.19	0.050	mg/L	0.20		96	85-115			12/27/13	

Blank Spike Dup (A315185-BSD2)

Aluminum	0.18	0.050	mg/L	0.20		89	85-115	6	20	12/27/13	
Calcium	9.5	0.10	mg/L	10		95	85-115	1	20	12/27/13	
Iron	1.9	0.030	mg/L	2.0		94	85-115	1	20	12/27/13	
Magnesium	9.3	0.10	mg/L	10		93	85-115	0	20	12/27/13	
Manganese	0.19	0.010	mg/L	0.20		93	85-115	1	20	12/27/13	
Zinc	0.19	0.050	mg/L	0.20		96	85-115	0	20	12/27/13	

Matrix Spike (A315185-MS3), Source: A3L1769-01

Aluminum	0.34	0.050	mg/L	0.20	0.084	126	70-130			12/27/13	
Calcium	22	0.10	mg/L	10	12	97	70-130			12/27/13	
Iron	3.2	0.030	mg/L	2.0	1.2	99	70-130			12/27/13	
Magnesium	15	0.10	mg/L	10	5.7	97	70-130			12/27/13	
Manganese	0.20	0.010	mg/L	0.20	0.014	94	70-130			12/27/13	
Zinc	0.32	0.050	mg/L	0.20	0.13	96	70-130			12/27/13	

Matrix Spike Dup (A315185-MSD3), Source: A3L1769-01

Aluminum	0.33	0.050	mg/L	0.20	0.084	125	70-130	1	20	12/27/13	
Calcium	21	0.10	mg/L	10	12	93	70-130	2	20	12/27/13	
Iron	3.1	0.030	mg/L	2.0	1.2	97	70-130	2	20	12/27/13	
Magnesium	15	0.10	mg/L	10	5.7	94	70-130	2	20	12/27/13	
Manganese	0.20	0.010	mg/L	0.20	0.014	93	70-130	1	20	12/27/13	
Zinc	0.32	0.050	mg/L	0.20	0.13	94	70-130	1	20	12/27/13	

EPA 200.7 - Quality Control

Batch: A315238

Prepared: 12/24/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A315238-BLK2)

Barium - Dissolved (1)	ND	0.050	mg/L							12/30/13	
Boron - Dissolved (1)	ND	0.10	mg/L							12/30/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A315238

Prepared: 12/24/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A315238-BLK2)

Calcium - Dissolved (1)	ND	0.10	mg/L							12/30/13	
Iron - Dissolved (1)	ND	0.030	mg/L							12/30/13	
Magnesium - Dissolved (1)	ND	0.10	mg/L							12/30/13	
Manganese - Dissolved (1)	ND	0.010	mg/L							12/30/13	
Potassium - Dissolved (1)	ND	2.0	mg/L							12/30/13	
Silica (SiO2) - Dissolved (1)	ND	0.20	mg/L							12/30/13	

Blank Spike (A315238-BS2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		100	85-115			12/30/13	
Boron - Dissolved (1)	0.57	0.10	mg/L	0.60		96	85-115			12/30/13	
Calcium - Dissolved (1)	10	0.10	mg/L	10		100	85-115			12/30/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		100	85-115			12/30/13	
Magnesium - Dissolved (1)	9.8	0.10	mg/L	10		98	85-115			12/30/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20		98	85-115			12/30/13	
Potassium - Dissolved (1)	10	2.0	mg/L	10		101	85-115			12/30/13	
Silica (SiO2) - Dissolved (1)	2.1	0.20	mg/L	2.1		100	85-115			12/30/13	

Blank Spike Dup (A315238-BSD2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		100	85-115	0	20	12/30/13	
Boron - Dissolved (1)	0.57	0.10	mg/L	0.60		96	85-115	0	20	12/30/13	
Calcium - Dissolved (1)	9.9	0.10	mg/L	10		99	85-115	1	20	12/30/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		99	85-115	1	20	12/30/13	
Magnesium - Dissolved (1)	9.7	0.10	mg/L	10		97	85-115	1	20	12/30/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20		97	85-115	1	20	12/30/13	
Potassium - Dissolved (1)	10	2.0	mg/L	10		100	85-115	1	20	12/30/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		101	85-115	1	20	12/30/13	

Matrix Spike (A315238-MS2), Source: A3L1798-01

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20	ND	101	70-130			12/30/13	
Boron - Dissolved (1)	1.5	0.10	mg/L	0.60	0.94	93	70-130			12/30/13	
Calcium - Dissolved (1)	12	0.10	mg/L	10	1.9	98	70-130			12/30/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.17	97	70-130			12/30/13	
Magnesium - Dissolved (1)	10	0.10	mg/L	10	0.72	95	70-130			12/30/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20	ND	94	70-130			12/30/13	
Potassium - Dissolved (1)	11	2.0	mg/L	10	ND	97	70-130			12/30/13	
Silica (SiO2) - Dissolved (1)	31	0.20	mg/L	2.1	29	91	70-130			12/30/13	

Matrix Spike Dup (A315238-MSD2), Source: A3L1798-01

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20	ND	102	70-130	1	20	12/30/13	
Boron - Dissolved (1)	1.5	0.10	mg/L	0.60	0.94	97	70-130	1	20	12/30/13	
Calcium - Dissolved (1)	12	0.10	mg/L	10	1.9	99	70-130	1	20	12/30/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.17	97	70-130	0	20	12/30/13	
Magnesium - Dissolved (1)	10	0.10	mg/L	10	0.72	96	70-130	1	20	12/30/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20	ND	96	70-130	1	20	12/30/13	
Potassium - Dissolved (1)	11	2.0	mg/L	10	ND	97	70-130	0	20	12/30/13	
Silica (SiO2) - Dissolved (1)	31	0.20	mg/L	2.1	29	102	70-130	1	20	12/30/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A401747

Prepared: 2/11/2014

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A401747-BLK1)

Sodium - Dissolved (1) ND 1.0 mg/L 02/12/14

Blank Spike (A401747-BS1)

Sodium - Dissolved (1) 10 1.0 mg/L 10 102 85-115 02/12/14

Blank Spike Dup (A401747-BSD1)

Sodium - Dissolved (1) 10 1.0 mg/L 10 104 85-115 1 20 02/12/14

Matrix Spike (A401747-MS1), Source: A3L1789-01

Sodium - Dissolved (1) 6100 10 mg/L 10 6200 NR 70-130 02/12/14 MS1.4 Low

Matrix Spike Dup (A401747-MSD1), Source: A3L1789-01

Sodium - Dissolved (1) 6100 10 mg/L 10 6200 NR 70-130 1 20 02/12/14 MS1.4 Low

EPA 200.8 - Quality Control

Batch: A315185

Prepared: 12/23/2013

Prep Method: EPA 200.2

Analyst: MAS

Blank (A315185-BLK1)

Arsenic ND 2.0 ug/L 12/30/13

Copper ND 5.0 ug/L 12/30/13

Blank Spike (A315185-BS1)

Arsenic 190 2.0 ug/L 200 97 85-115 12/30/13

Copper 190 5.0 ug/L 200 94 85-115 12/30/13

Blank Spike Dup (A315185-BSD1)

Arsenic 200 2.0 ug/L 200 98 85-115 1 20 12/30/13

Copper 190 5.0 ug/L 200 95 85-115 1 20 12/30/13

Matrix Spike (A315185-MS1), Source: A3L1769-01

Arsenic 190 2.0 ug/L 200 ND 97 70-130 12/30/13

Copper 200 5.0 ug/L 200 9.0 93 70-130 12/30/13

Matrix Spike (A315185-MS2), Source: A3L1789-01

Arsenic 220 10 ug/L 200 ND 111 70-130 12/30/13

Copper 230 25 ug/L 200 38 96 70-130 12/30/13

Matrix Spike Dup (A315185-MSD1), Source: A3L1769-01

Arsenic 190 2.0 ug/L 200 ND 96 70-130 0 20 12/30/13

Copper 190 5.0 ug/L 200 9.0 92 70-130 1 20 12/30/13

Matrix Spike Dup (A315185-MSD2), Source: A3L1789-01

Arsenic 210 10 ug/L 200 ND 107 70-130 4 20 12/30/13

Copper 220 25 ug/L 200 38 92 70-130 4 20 12/30/13

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.8 - Quality Control

Batch: A315238

Prepared: 12/24/2013

Prep Method: Filtration - Metals

Analyst: PSK

Blank (A315238-BLK1)

Strontium - Dissolved (1) ND 1.0 ug/L 12/27/13

Blank Spike (A315238-BS1)

Strontium - Dissolved (1) 200 1.0 ug/L 200 98 85-115 12/27/13

Blank Spike Dup (A315238-BSD1)

Strontium - Dissolved (1) 200 1.0 ug/L 200 98 85-115 1 20 12/27/13

Matrix Spike (A315238-MS1), Source: A3L1798-01

Strontium - Dissolved (1) 230 1.0 ug/L 200 8600 NR 70-130 12/27/13 MS1.0 Low

Matrix Spike Dup (A315238-MSD1), Source: A3L1798-01

Strontium - Dissolved (1) 230 1.0 ug/L 200 8600 NR 70-130 3 20 12/27/13 MS1.0 Low

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A315261

Prepared: 12/24/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A315261-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							12/25/13	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							12/25/13	
Surrogate: TCMX	4.8			4.5		109	70-130			12/25/13	

Blank Spike (A315261-BS1)

Dibromochloropropane (DBCP)	0.21	0.010	ug/L	0.20		105	70-130			12/25/13	
Ethylene Dibromide (EDB)	0.22	0.020	ug/L	0.20		109	70-130			12/25/13	
Surrogate: TCMX	5.0			4.5		112	70-130			12/25/13	

Blank Spike Dup (A315261-BSD1)

Dibromochloropropane (DBCP)	0.21	0.010	ug/L	0.20		107	70-130	2	20	12/25/13	
Ethylene Dibromide (EDB)	0.22	0.020	ug/L	0.20		111	70-130	2	20	12/25/13	
Surrogate: TCMX	5.1			4.5		115	70-130			12/25/13	

Matrix Spike (A315261-MS1), Source: A3L1733-01

Dibromochloropropane (DBCP)	0.80	0.010	ug/L	0.20	0.73	30	65-135			12/25/13	MS1.4 Low
Ethylene Dibromide (EDB)	0.22	0.020	ug/L	0.20	ND	103	65-135			12/25/13	
Surrogate: TCMX	5.3			4.5		117	70-130			12/25/13	

Matrix Spike Dup (A315261-MSD1), Source: A3L1733-01

Dibromochloropropane (DBCP)	0.88	0.010	ug/L	0.20	0.73	70	65-135	9	20	12/25/13	
Ethylene Dibromide (EDB)	0.24	0.020	ug/L	0.20	ND	114	65-135	9	20	12/25/13	
Surrogate: TCMX	5.7			4.5		128	70-130			12/25/13	

EPA 505 - Quality Control

Batch: A315261

Prepared: 12/24/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A315261-BLK1)

Aldrin	ND	0.075	ug/L							12/25/13	
Chlordane	ND	0.10	ug/L							12/25/13	
Chlorothalonil	ND	5.0	ug/L							12/25/13	
Dieldrin	ND	0.020	ug/L							12/25/13	
Endrin	ND	0.10	ug/L							12/25/13	
Heptachlor	ND	0.010	ug/L							12/25/13	
Heptachlor Epoxide	ND	0.010	ug/L							12/25/13	
Hexachlorobenzene	ND	0.50	ug/L							12/25/13	
Hexachlorocyclopentadiene	ND	1.0	ug/L							12/25/13	
Lindane	ND	0.20	ug/L							12/25/13	
Methoxychlor	ND	10	ug/L							12/25/13	
PCB Aroclor Screen	ND	0.50	ug/L							12/25/13	
Toxaphene	ND	1.0	ug/L							12/25/13	
Trifluralin	ND	1.0	ug/L							12/25/13	
Surrogate: TCMX	4.8			4.5		109	70-130			12/25/13	

Blank Spike (A315261-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A315261

Prepared: 12/24/2013

Prep Method: EPA 505

Analyst: GAK

Blank Spike (A315261-BS1)

Aldrin	1.0	0.075	ug/L	1.0		102	70-130			12/25/13	
Chlorothalonil	10	5.0	ug/L	10		105	70-130			12/25/13	
Dieldrin	0.43	0.020	ug/L	0.40		107	70-130			12/25/13	
Endrin	0.22	0.10	ug/L	0.20		108	70-130			12/25/13	
Heptachlor	0.21	0.010	ug/L	0.20		106	70-130			12/25/13	
Heptachlor Epoxide	0.21	0.010	ug/L	0.20		106	70-130			12/25/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0		105	70-130			12/25/13	
Hexachlorocyclopentadiene	2.1	1.0	ug/L	2.0		105	70-130			12/25/13	
Lindane	0.42	0.20	ug/L	0.40		105	70-130			12/25/13	
Methoxychlor	2.3	10	ug/L	2.0		115	70-130			12/25/13	
Trifluralin	2.1	1.0	ug/L	2.0		107	70-130			12/25/13	
Surrogate: TCMX	5.0			4.5		112	70-130			12/25/13	

Blank Spike Dup (A315261-BSD1)

Aldrin	1.1	0.075	ug/L	1.0		110	70-130	8	20	12/25/13	
Chlorothalonil	10	5.0	ug/L	10		102	70-130	2	20	12/25/13	
Dieldrin	0.43	0.020	ug/L	0.40		108	70-130	0	20	12/25/13	
Endrin	0.22	0.10	ug/L	0.20		110	70-130	1	20	12/25/13	
Heptachlor	0.22	0.010	ug/L	0.20		110	70-130	4	20	12/25/13	
Heptachlor Epoxide	0.21	0.010	ug/L	0.20		107	70-130	1	20	12/25/13	
Hexachlorobenzene	2.2	0.50	ug/L	2.0		108	70-130	3	20	12/25/13	
Hexachlorocyclopentadiene	2.2	1.0	ug/L	2.0		109	70-130	4	20	12/25/13	
Lindane	0.44	0.20	ug/L	0.40		109	70-130	4	20	12/25/13	
Methoxychlor	2.3	10	ug/L	2.0		114	70-130	2	20	12/25/13	
Trifluralin	2.2	1.0	ug/L	2.0		110	70-130	3	20	12/25/13	
Surrogate: TCMX	5.1			4.5		115	70-130			12/25/13	

Matrix Spike (A315261-MS1), Source: A3L1733-01

Aldrin	1.1	0.075	ug/L	1.0	ND	108	65-135			12/25/13	
Chlorothalonil	10	5.0	ug/L	10	ND	99	65-135			12/25/13	
Dieldrin	0.39	0.020	ug/L	0.40	ND	96	65-135			12/25/13	
Endrin	0.21	0.10	ug/L	0.20	ND	105	65-135			12/25/13	
Heptachlor	0.22	0.010	ug/L	0.20	ND	108	65-135			12/25/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20	ND	97	65-135			12/25/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0	ND	102	65-135			12/25/13	
Hexachlorocyclopentadiene	2.2	1.0	ug/L	2.0	ND	105	65-135			12/25/13	
Lindane	0.40	0.20	ug/L	0.40	ND	98	65-135			12/25/13	
Methoxychlor	2.2	10	ug/L	2.0	ND	107	65-135			12/25/13	
Trifluralin	2.1	1.0	ug/L	2.0	ND	106	65-135			12/25/13	
Surrogate: TCMX	5.3			4.5		117	70-130			12/25/13	

Matrix Spike Dup (A315261-MSD1), Source: A3L1733-01

Aldrin	1.2	0.075	ug/L	1.0	ND	121	65-135	11	20	12/25/13	
Chlorothalonil	11	5.0	ug/L	10	ND	107	65-135	7	20	12/25/13	
Dieldrin	0.42	0.020	ug/L	0.40	ND	106	65-135	9	20	12/25/13	
Endrin	0.22	0.10	ug/L	0.20	ND	112	65-135	5	20	12/25/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A315261
Prep Method: EPA 505

Prepared: 12/24/2013
Analyst: GAK

Matrix Spike Dup (A315261-MSD1), Source: A3L1733-01

Heptachlor	0.24	0.010	ug/L	0.20	ND	118	65-135	8	20	12/25/13	
Heptachlor Epoxide	0.21	0.010	ug/L	0.20	ND	106	65-135	8	20	12/25/13	
Hexachlorobenzene	2.3	0.50	ug/L	2.0	ND	113	65-135	10	20	12/25/13	
Hexachlorocyclopentadiene	2.4	1.0	ug/L	2.0	ND	117	65-135	11	20	12/25/13	
Lindane	0.44	0.20	ug/L	0.40	ND	109	65-135	10	20	12/25/13	
Methoxychlor	2.3	10	ug/L	2.0	ND	117	65-135	8	20	12/25/13	
Trifluralin	2.3	1.0	ug/L	2.0	ND	112	65-135	5	20	12/25/13	
Surrogate: TCMX	5.7			4.5		128	70-130			12/25/13	

EPA 515.3 - Quality Control

Batch: A315300
Prep Method: EPA 515.3

Prepared: 12/26/2013
Analyst: GAK

Blank (A315300-BLK1)

2,4,5-T	ND	1.0	ug/L							12/28/13	
2,4,5-TP (Silvex)	ND	1.0	ug/L							12/28/13	
2,4-D	ND	10	ug/L							12/28/13	
Bentazon	ND	2.0	ug/L							12/28/13	
Dalapon	ND	10	ug/L							12/28/13	
Dicamba	ND	1.5	ug/L							12/28/13	
Dinoseb	ND	2.0	ug/L							12/28/13	
Pentachlorophenol	ND	0.20	ug/L							12/28/13	
Picloram	ND	1.0	ug/L							12/28/13	
Surrogate: DCPAA	59			58		102	70-130			12/28/13	

Blank Spike (A315300-BS1)

2,4,5-T	4.7	1.0	ug/L	4.0		117	70-130			12/28/13	
2,4,5-TP (Silvex)	0.94	1.0	ug/L	0.80		117	70-130			12/28/13	
2,4-D	0.47	10	ug/L	0.40		117	70-130			12/28/13	
Bentazon	8.7	2.0	ug/L	8.0		109	70-130			12/28/13	
Dalapon	4.2	10	ug/L	4.0		106	70-130			12/28/13	
Dicamba	7.1	1.5	ug/L	6.0		118	70-130			12/28/13	
Dinoseb	0.90	2.0	ug/L	0.80		113	70-130			12/28/13	
Pentachlorophenol	0.19	0.20	ug/L	0.16		116	70-130			12/28/13	
Picloram	0.46	1.0	ug/L	0.40		116	70-130			12/28/13	
Surrogate: DCPAA	59			58		101	70-130			12/28/13	

Blank Spike Dup (A315300-BSD1)

2,4,5-T	4.0	1.0	ug/L	4.0		100	70-130	15	20	12/28/13	
2,4,5-TP (Silvex)	0.80	1.0	ug/L	0.80		100	70-130	16	20	12/28/13	
2,4-D	0.38	10	ug/L	0.40		96	70-130	19	20	12/28/13	
Bentazon	8.1	2.0	ug/L	8.0		102	70-130	7	20	12/28/13	
Dalapon	3.9	10	ug/L	4.0		98	70-130	8	20	12/28/13	
Dicamba	5.9	1.5	ug/L	6.0		98	70-130	18	20	12/28/13	
Dinoseb	0.81	2.0	ug/L	0.80		102	70-130	10	20	12/28/13	
Pentachlorophenol	0.15	0.20	ug/L	0.16		96	70-130	19	20	12/28/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A315300

Prepared: 12/26/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A315300-BSD1)

Picloram	0.40	1.0	ug/L	0.40		100	70-130	15	20	12/28/13	
Surrogate: DCPAA	48			58		83	70-130			12/28/13	

Matrix Spike (A315300-MS1), Source: A3L1370-07

2,4,5-T	4.0	1.0	ug/L	4.0	ND	100	70-130			12/28/13	
2,4,5-TP (Silvex)	0.80	1.0	ug/L	0.80	ND	100	70-130			12/28/13	
2,4-D	0.40	10	ug/L	0.40	ND	99	70-130			12/28/13	
Bentazon	8.1	2.0	ug/L	8.0	ND	102	70-130			12/28/13	
Dalapon	4.2	10	ug/L	4.0	ND	106	70-130			12/28/13	
Dicamba	6.0	1.5	ug/L	6.0	ND	101	70-130			12/28/13	
Dinoseb	0.75	2.0	ug/L	0.80	ND	94	70-130			12/28/13	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	92	70-130			12/28/13	
Picloram	0.42	1.0	ug/L	0.40	ND	106	70-130			12/28/13	
Surrogate: DCPAA	50			58		86	70-130			12/28/13	

EPA 524.2 - Quality Control

Batch: A315401

Prepared: 12/30/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A315401-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							12/30/13	
1,1,1-Trichloroethane	ND	0.50	ug/L							12/30/13	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							12/30/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							12/30/13	
1,1,2-Trichloroethane	ND	0.50	ug/L							12/30/13	
1,1-Dichloroethane	ND	0.50	ug/L							12/30/13	
1,1-Dichloroethene	ND	0.50	ug/L							12/30/13	
1,1-Dichloropropene	ND	0.50	ug/L							12/30/13	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							12/30/13	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							12/30/13	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							12/30/13	
1,2-Dichlorobenzene	ND	0.50	ug/L							12/30/13	
1,2-Dichloroethane	ND	0.50	ug/L							12/30/13	
1,2-Dichloropropane	ND	0.50	ug/L							12/30/13	
1,3,5-Trimethylbenzene	ND	0.50	ug/L							12/30/13	
1,3-Dichlorobenzene	ND	0.50	ug/L							12/30/13	
1,3-Dichloropropane	ND	0.50	ug/L							12/30/13	
1,4-Dichlorobenzene	ND	0.50	ug/L							12/30/13	
2,2-Dichloropropane	ND	0.50	ug/L							12/30/13	
2-Butanone	ND	5.0	ug/L							12/30/13	
2-Chlorotoluene	ND	0.50	ug/L							12/30/13	
2-Hexanone	ND	10	ug/L							12/30/13	
4-Chlorotoluene	ND	0.50	ug/L							12/30/13	
4-Methyl-2-pentanone	ND	5.0	ug/L							12/30/13	
Acetone	ND	10	ug/L							12/30/13	
Benzene	ND	0.50	ug/L							12/30/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A315401

Prepared: 12/30/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A315401-BLK1)

Bromobenzene	ND	0.50	ug/L							12/30/13	
Bromochloromethane	ND	0.50	ug/L							12/30/13	
Bromodichloromethane	ND	0.50	ug/L							12/30/13	
Bromoform	ND	0.50	ug/L							12/30/13	
Bromomethane	ND	0.50	ug/L							12/30/13	
Carbon Tetrachloride	ND	0.50	ug/L							12/30/13	
Chlorobenzene	ND	0.50	ug/L							12/30/13	
Chloroethane	ND	0.50	ug/L							12/30/13	
Chloroform	ND	0.50	ug/L							12/30/13	
Chloromethane	ND	0.50	ug/L							12/30/13	
cis-1,2-Dichloroethene	ND	0.50	ug/L							12/30/13	
cis-1,3-Dichloropropene	ND	0.50	ug/L							12/30/13	
Dibromochloromethane	ND	0.50	ug/L							12/30/13	
Dibromomethane	ND	0.50	ug/L							12/30/13	
Dichlorodifluoromethane	ND	0.50	ug/L							12/30/13	
Dichloromethane	ND	0.50	ug/L							12/30/13	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							12/30/13	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							12/30/13	
Ethylbenzene	ND	0.50	ug/L							12/30/13	
Hexachlorobutadiene	ND	0.50	ug/L							12/30/13	
Isopropylbenzene	ND	0.50	ug/L							12/30/13	
m,p-Xylenes	ND	0.50	ug/L							12/30/13	
Methyl-t-butyl ether	ND	0.50	ug/L							12/30/13	
Naphthalene	ND	0.50	ug/L							12/30/13	
n-Butylbenzene	ND	0.50	ug/L							12/30/13	
n-Propylbenzene	ND	0.50	ug/L							12/30/13	
o-Xylene	ND	0.50	ug/L							12/30/13	
p-Isopropyltoluene	ND	0.50	ug/L							12/30/13	
sec-Butylbenzene	ND	0.50	ug/L							12/30/13	
Styrene	ND	0.50	ug/L							12/30/13	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							12/30/13	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							12/30/13	
tert-Butylbenzene	ND	0.50	ug/L							12/30/13	
Tetrachloroethene (PCE)	ND	0.50	ug/L							12/30/13	
Toluene	ND	0.50	ug/L							12/30/13	
trans-1,2-Dichloroethene	ND	0.50	ug/L							12/30/13	
trans-1,3-Dichloropropene	ND	0.50	ug/L							12/30/13	
Trichloroethene (TCE)	ND	0.50	ug/L							12/30/13	
Trichlorofluoromethane	ND	5.0	ug/L							12/30/13	
Vinyl Chloride	ND	0.50	ug/L							12/30/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.7			5.0		94	70-130			12/30/13	
Surrogate: Bromofluorobenzene	51			50		101	70-130			12/30/13	

Blank Spike (A315401-BS1)

1,1,1,2-Tetrachloroethane	9.5	0.50	ug/L	10		95	70-130			12/30/13	
1,1,1-Trichloroethane	10	0.50	ug/L	10		101	70-130			12/30/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A315401

Prepared: 12/30/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A315401-BS1)

1,1,2,2-Tetrachloroethane	10	0.50	ug/L	10		102	70-130			12/30/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.4	10	ug/L	10		94	70-130			12/30/13	
1,1,2-Trichloroethane	10	0.50	ug/L	10		100	70-130			12/30/13	
1,1-Dichloroethane	10	0.50	ug/L	10		101	70-130			12/30/13	
1,1-Dichloroethene	10	0.50	ug/L	10		101	70-130			12/30/13	
1,1-Dichloropropene	11	0.50	ug/L	10		106	70-130			12/30/13	
1,2,3-Trichlorobenzene	9.2	0.50	ug/L	10		92	70-130			12/30/13	
1,2,4-Trichlorobenzene	9.5	0.50	ug/L	10		95	70-130			12/30/13	
1,2,4-Trimethylbenzene	9.7	0.50	ug/L	10		97	70-130			12/30/13	
1,2-Dichlorobenzene	9.3	0.50	ug/L	10		93	70-130			12/30/13	
1,2-Dichloroethane	9.8	0.50	ug/L	10		98	70-130			12/30/13	
1,2-Dichloropropane	7.7	0.50	ug/L	10		77	70-130			12/30/13	
1,3,5-Trimethylbenzene	10	0.50	ug/L	10		104	70-130			12/30/13	
1,3-Dichlorobenzene	9.4	0.50	ug/L	10		94	70-130			12/30/13	
1,3-Dichloropropane	8.8	0.50	ug/L	10		88	70-130			12/30/13	
1,4-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130			12/30/13	
2,2-Dichloropropane	10	0.50	ug/L	10		105	70-130			12/30/13	
2-Butanone	8.1	5.0	ug/L	10		81	70-130			12/30/13	
2-Chlorotoluene	9.7	0.50	ug/L	10		97	70-130			12/30/13	
2-Hexanone	11	10	ug/L	10		105	70-130			12/30/13	
4-Chlorotoluene	10	0.50	ug/L	10		102	70-130			12/30/13	
4-Methyl-2-pentanone	8.7	5.0	ug/L	10		87	70-130			12/30/13	
Acetone	9.1	10	ug/L	10		91	70-130			12/30/13	
Benzene	8.1	0.50	ug/L	10		81	70-130			12/30/13	
Bromobenzene	9.8	0.50	ug/L	10		98	70-130			12/30/13	
Bromochloromethane	9.0	0.50	ug/L	10		90	70-130			12/30/13	
Bromodichloromethane	9.9	0.50	ug/L	10		99	70-130			12/30/13	
Bromoform	9.1	0.50	ug/L	10		91	70-130			12/30/13	
Bromomethane	10	0.50	ug/L	10		103	70-130			12/30/13	
Carbon Tetrachloride	10	0.50	ug/L	10		100	70-130			12/30/13	
Chlorobenzene	9.3	0.50	ug/L	10		93	70-130			12/30/13	
Chloroethane	9.8	0.50	ug/L	10		98	70-130			12/30/13	
Chloroform	10	0.50	ug/L	10		100	70-130			12/30/13	
Chloromethane	8.4	0.50	ug/L	10		84	70-130			12/30/13	
cis-1,2-Dichloroethene	9.8	0.50	ug/L	10		98	70-130			12/30/13	
cis-1,3-Dichloropropene	9.9	0.50	ug/L	10		99	70-130			12/30/13	
Dibromochloromethane	8.2	0.50	ug/L	10		82	70-130			12/30/13	
Dibromomethane	8.6	0.50	ug/L	10		86	70-130			12/30/13	
Dichlorodifluoromethane	11	0.50	ug/L	10		106	70-130			12/30/13	
Dichloromethane	9.9	0.50	ug/L	10		99	70-130			12/30/13	
Di-isopropyl ether (DIPE)	8.8	3.0	ug/L	10		88	70-130			12/30/13	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		102	70-130			12/30/13	
Ethylbenzene	9.5	0.50	ug/L	10		95	70-130			12/30/13	
Hexachlorobutadiene	9.6	0.50	ug/L	10		96	70-130			12/30/13	
Isopropylbenzene	9.8	0.50	ug/L	10		98	70-130			12/30/13	
m,p-Xylenes	19	0.50	ug/L	20		97	70-130			12/30/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A315401

Prepared: 12/30/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A315401-BS1)

Methyl-t-butyl ether	21	0.50	ug/L	20		103	70-130			12/30/13	
Naphthalene	8.7	0.50	ug/L	10		87	70-130			12/30/13	
n-Butylbenzene	9.1	0.50	ug/L	10		91	70-130			12/30/13	
n-Propylbenzene	9.7	0.50	ug/L	10		97	70-130			12/30/13	
o-Xylene	11	0.50	ug/L	10		108	70-130			12/30/13	
p-Isopropyltoluene	9.6	0.50	ug/L	10		96	70-130			12/30/13	
sec-Butylbenzene	9.6	0.50	ug/L	10		96	70-130			12/30/13	
Styrene	18	0.50	ug/L	10		183	70-130			12/30/13	BS High
tert-Amyl Methyl Ether (TAME)	8.4	3.0	ug/L	10		84	70-130			12/30/13	
tert-Butyl alcohol (TBA)	7.4	2.0	ug/L	10		74	70-130			12/30/13	
tert-Butylbenzene	9.6	0.50	ug/L	10		96	70-130			12/30/13	
Tetrachloroethene (PCE)	8.5	0.50	ug/L	10		85	70-130			12/30/13	
Toluene	9.9	0.50	ug/L	10		99	70-130			12/30/13	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		100	70-130			12/30/13	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		105	70-130			12/30/13	
Trichloroethene (TCE)	9.1	0.50	ug/L	10		91	70-130			12/30/13	
Trichlorofluoromethane	9.8	5.0	ug/L	10		98	70-130			12/30/13	
Vinyl Chloride	11	0.50	ug/L	10		108	70-130			12/30/13	
Surrogate: 1,2-Dichlorobenzene-d4	5.1			5.0		102	70-130			12/30/13	
Surrogate: Bromofluorobenzene	50			50		101	70-130			12/30/13	

Blank Spike Dup (A315401-BSD1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		101	70-130	7	30	12/30/13	
1,1,1-Trichloroethane	9.5	0.50	ug/L	10		95	70-130	7	30	12/30/13	
1,1,2,2-Tetrachloroethane	10	0.50	ug/L	10		100	70-130	2	30	12/30/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	9.6	10	ug/L	10		96	70-130	2	30	12/30/13	
1,1,2-Trichloroethane	10	0.50	ug/L	10		103	70-130	3	30	12/30/13	
1,1-Dichloroethane	10	0.50	ug/L	10		104	70-130	3	30	12/30/13	
1,1-Dichloroethene	10	0.50	ug/L	10		101	70-130	0	30	12/30/13	
1,1-Dichloropropene	9.8	0.50	ug/L	10		98	70-130	8	30	12/30/13	
1,2,3-Trichlorobenzene	9.7	0.50	ug/L	10		97	70-130	5	30	12/30/13	
1,2,4-Trichlorobenzene	9.9	0.50	ug/L	10		99	70-130	4	30	12/30/13	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		100	70-130	3	30	12/30/13	
1,2-Dichlorobenzene	10	0.50	ug/L	10		103	70-130	10	30	12/30/13	
1,2-Dichloroethane	10	0.50	ug/L	10		105	70-130	6	30	12/30/13	
1,2-Dichloropropane	10	0.50	ug/L	10		104	70-130	29	30	12/30/13	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		106	70-130	2	30	12/30/13	
1,3-Dichlorobenzene	11	0.50	ug/L	10		106	70-130	11	30	12/30/13	
1,3-Dichloropropane	10	0.50	ug/L	10		102	70-130	15	30	12/30/13	
1,4-Dichlorobenzene	9.9	0.50	ug/L	10		99	70-130	2	30	12/30/13	
2,2-Dichloropropane	11	0.50	ug/L	10		108	70-130	3	30	12/30/13	
2-Butanone	10	5.0	ug/L	10		102	70-130	23	30	12/30/13	
2-Chlorotoluene	9.8	0.50	ug/L	10		98	70-130	1	30	12/30/13	
2-Hexanone	9.9	10	ug/L	10		99	70-130	6	30	12/30/13	
4-Chlorotoluene	10	0.50	ug/L	10		103	70-130	1	30	12/30/13	
4-Methyl-2-pentanone	8.9	5.0	ug/L	10		89	70-130	3	30	12/30/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A315401

Prepared: 12/30/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A315401-BSD1)

Acetone	11	10	ug/L	10		105	70-130	15	30	12/30/13	
Benzene	10	0.50	ug/L	10		102	70-130	23	30	12/30/13	
Bromobenzene	9.7	0.50	ug/L	10		97	70-130	1	30	12/30/13	
Bromochloromethane	10	0.50	ug/L	10		101	70-130	11	30	12/30/13	
Bromodichloromethane	10	0.50	ug/L	10		105	70-130	6	30	12/30/13	
Bromoform	10	0.50	ug/L	10		102	70-130	11	30	12/30/13	
Bromomethane	7.4	0.50	ug/L	10		74	70-130	34	30	12/30/13	BS3.0
Carbon Tetrachloride	9.8	0.50	ug/L	10		98	70-130	2	30	12/30/13	
Chlorobenzene	10	0.50	ug/L	10		101	70-130	8	30	12/30/13	
Chloroethane	9.8	0.50	ug/L	10		98	70-130	0	30	12/30/13	
Chloroform	10	0.50	ug/L	10		103	70-130	3	30	12/30/13	
Chloromethane	8.2	0.50	ug/L	10		82	70-130	3	30	12/30/13	
cis-1,2-Dichloroethene	10	0.50	ug/L	10		103	70-130	5	30	12/30/13	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		107	70-130	7	30	12/30/13	
Dibromochloromethane	10	0.50	ug/L	10		100	70-130	19	30	12/30/13	
Dibromomethane	10	0.50	ug/L	10		102	70-130	18	30	12/30/13	
Dichlorodifluoromethane	9.3	0.50	ug/L	10		93	70-130	12	30	12/30/13	
Dichloromethane	10	0.50	ug/L	10		104	70-130	5	30	12/30/13	
Di-isopropyl ether (DIPE)	9.7	3.0	ug/L	10		97	70-130	10	30	12/30/13	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		102	70-130	0	30	12/30/13	
Ethylbenzene	10	0.50	ug/L	10		100	70-130	6	30	12/30/13	
Hexachlorobutadiene	10	0.50	ug/L	10		101	70-130	5	30	12/30/13	
Isopropylbenzene	9.7	0.50	ug/L	10		97	70-130	1	30	12/30/13	
m,p-Xylenes	20	0.50	ug/L	20		98	70-130	1	30	12/30/13	
Methyl-t-butyl ether	21	0.50	ug/L	20		104	70-130	2	30	12/30/13	
Naphthalene	9.1	0.50	ug/L	10		91	70-130	4	30	12/30/13	
n-Butylbenzene	9.5	0.50	ug/L	10		95	70-130	4	30	12/30/13	
n-Propylbenzene	9.7	0.50	ug/L	10		97	70-130	0	30	12/30/13	
o-Xylene	11	0.50	ug/L	10		108	70-130	1	30	12/30/13	
p-Isopropyltoluene	9.7	0.50	ug/L	10		97	70-130	1	30	12/30/13	
sec-Butylbenzene	9.8	0.50	ug/L	10		98	70-130	1	30	12/30/13	
Styrene	19	0.50	ug/L	10		187	70-130	2	30	12/30/13	BS High
tert-Amyl Methyl Ether (TAME)	9.4	3.0	ug/L	10		94	70-130	11	30	12/30/13	
tert-Butyl alcohol (TBA)	9.7	2.0	ug/L	10		97	70-130	27	30	12/30/13	
tert-Butylbenzene	9.7	0.50	ug/L	10		97	70-130	1	30	12/30/13	
Tetrachloroethene (PCE)	9.8	0.50	ug/L	10		98	70-130	14	30	12/30/13	
Toluene	9.9	0.50	ug/L	10		99	70-130	0	30	12/30/13	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		103	70-130	2	30	12/30/13	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		108	70-130	3	30	12/30/13	
Trichloroethene (TCE)	10	0.50	ug/L	10		103	70-130	12	30	12/30/13	
Trichlorofluoromethane	10	5.0	ug/L	10		100	70-130	2	30	12/30/13	
Vinyl Chloride	10	0.50	ug/L	10		104	70-130	4	30	12/30/13	
Surrogate: 1,2-Dichlorobenzene-d4	5.1			5.0		103	70-130			12/30/13	
Surrogate: Bromofluorobenzene	51			50		101	70-130			12/30/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A315174

Prepared: 12/23/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank (A315174-BLK1)

Alachlor	ND	1.0	ug/L							12/23/13	
Atrazine	ND	0.50	ug/L							12/23/13	
Benzo(a)pyrene	ND	0.10	ug/L							12/23/13	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							12/23/13	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							12/23/13	
Bromacil	ND	10	ug/L							12/23/13	
Butachlor	ND	0.38	ug/L							12/23/13	
Diazinon	ND	0.25	ug/L							12/23/13	
Dimethoate	ND	10	ug/L							12/23/13	
Metolachlor	ND	0.50	ug/L							12/23/13	
Metribuzin	ND	0.50	ug/L							12/23/13	
Molinate	ND	2.0	ug/L							12/23/13	
Propachlor	ND	0.50	ug/L							12/23/13	
Simazine	ND	1.0	ug/L							12/23/13	
Thiobencarb	ND	1.0	ug/L							12/23/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.2			5.0		103	70-130			12/23/13	

Blank Spike (A315174-BS1)

Alachlor	0.54	1.0	ug/L	0.50		107	70-130			12/24/13	
Atrazine	0.53	0.50	ug/L	0.50		105	70-130			12/24/13	
Benzo(a)pyrene	0.13	0.10	ug/L	0.10		125	70-130			12/24/13	
Bis(2-ethylhexyl) adipate	3.0	3.0	ug/L	3.0		101	70-130			12/24/13	
Bis(2-ethylhexyl) phthalate	3.3	3.0	ug/L	3.0		108	70-130			12/24/13	
Bromacil	2.6	10	ug/L	2.0		131	70-130			12/24/13	BS High
Butachlor	1.5	0.38	ug/L	1.3		117	70-130			12/24/13	
Diazinon	0.043	0.25	ug/L	0.050		86	70-130			12/24/13	
Dimethoate	0.63	10	ug/L	0.50		124	70-130			12/24/13	
Metolachlor	3.0	0.50	ug/L	2.5		118	70-130			12/24/13	
Metribuzin	3.0	0.50	ug/L	2.5		117	70-130			12/24/13	
Molinate	2.7	2.0	ug/L	2.5		105	70-130			12/24/13	
Propachlor	2.8	0.50	ug/L	2.5		110	70-130			12/24/13	
Simazine	0.39	1.0	ug/L	0.35		111	70-130			12/24/13	
Thiobencarb	0.55	1.0	ug/L	0.50		110	70-130			12/24/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.8			5.0		96	70-130			12/24/13	

Blank Spike Dup (A315174-BSD1)

Alachlor	0.50	1.0	ug/L	0.50		101	70-130	7	30	12/23/13	
Atrazine	0.53	0.50	ug/L	0.50		106	70-130	0	30	12/23/13	
Benzo(a)pyrene	0.13	0.10	ug/L	0.10		128	70-130	1	30	12/23/13	
Bis(2-ethylhexyl) adipate	3.0	3.0	ug/L	3.0		101	70-130	1	30	12/23/13	
Bis(2-ethylhexyl) phthalate	3.3	3.0	ug/L	3.0		111	70-130	2	30	12/23/13	
Bromacil	2.3	10	ug/L	2.0		115	70-130	14	30	12/23/13	
Butachlor	1.3	0.38	ug/L	1.2		108	70-130	8	30	12/23/13	
Diazinon	0.035	0.25	ug/L	0.050		70	70-130	22	30	12/23/13	
Dimethoate	0.55	10	ug/L	0.50		111	70-130	12	30	12/23/13	
Metolachlor	2.7	0.50	ug/L	2.5		110	70-130	8	30	12/23/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A315174

Prepared: 12/23/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike Dup (A315174-BSD1)

Metribuzin	2.9	0.50	ug/L	2.5		114	70-130	4	30	12/23/13	
Molinate	2.7	2.0	ug/L	2.5		107	70-130	1	30	12/23/13	
Propachlor	2.7	0.50	ug/L	2.5		108	70-130	3	30	12/23/13	
Simazine	0.40	1.0	ug/L	0.35		115	70-130	2	30	12/23/13	
Thiobencarb	0.57	1.0	ug/L	0.50		113	70-130	2	30	12/23/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			5.0		100	70-130			12/23/13	

Matrix Spike (A315174-MS1), Source: A3L1502-01

Alachlor	0.53	1.0	ug/L	0.50	ND	106	70-130			12/23/13	
Atrazine	0.56	0.50	ug/L	0.50	ND	113	70-130			12/23/13	
Benzo(a)pyrene	0.12	0.10	ug/L	0.10	ND	122	70-130			12/23/13	
Bis(2-ethylhexyl) adipate	3.0	3.0	ug/L	3.0	ND	101	70-130			12/23/13	
Bis(2-ethylhexyl) phthalate	3.1	3.0	ug/L	3.0	ND	104	70-130			12/23/13	
Bromacil	2.5	10	ug/L	2.0	ND	125	70-130			12/23/13	
Butachlor	1.4	0.38	ug/L	1.2	ND	111	70-130			12/23/13	
Diazinon	0.047	0.25	ug/L	0.050	ND	94	70-130			12/23/13	
Dimethoate	0.60	10	ug/L	0.50	ND	121	70-130			12/23/13	
Metolachlor	2.8	0.50	ug/L	2.5	ND	112	70-130			12/23/13	
Metribuzin	2.9	0.50	ug/L	2.5	ND	117	70-130			12/23/13	
Molinate	2.7	2.0	ug/L	2.5	ND	109	70-130			12/23/13	
Propachlor	2.7	0.50	ug/L	2.5	ND	108	70-130			12/23/13	
Simazine	0.40	1.0	ug/L	0.35	ND	115	70-130			12/23/13	
Thiobencarb	0.54	1.0	ug/L	0.50	ND	108	70-130			12/23/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			5.0		100	70-130			12/23/13	

EPA 531.1 - Quality Control

Batch: A315375

Prepared: 12/27/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A315375-BLK1)

3-Hydroxycarbofuran	ND	3.0	ug/L							12/28/13	
Aldicarb	ND	3.0	ug/L							12/28/13	
Aldicarb Sulfone	ND	2.0	ug/L							12/28/13	
Aldicarb Sulfoxide	ND	3.0	ug/L							12/28/13	
Carbaryl	ND	5.0	ug/L							12/28/13	
Carbofuran	ND	5.0	ug/L							12/28/13	
Methomyl	ND	2.0	ug/L							12/28/13	
Oxamyl	ND	20	ug/L							12/28/13	

Blank Spike (A315375-BS1)

3-Hydroxycarbofuran	4.4	3.0	ug/L	4.2		105	80-120			12/28/13	
Aldicarb	4.0	3.0	ug/L	4.2		97	80-120			12/28/13	
Aldicarb Sulfone	4.4	2.0	ug/L	4.2		107	80-120			12/28/13	
Aldicarb Sulfoxide	4.5	3.0	ug/L	4.2		108	80-120			12/28/13	
Carbaryl	4.2	5.0	ug/L	4.2		100	80-120			12/28/13	
Carbofuran	4.6	5.0	ug/L	4.2		110	80-120			12/28/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A315375

Prepared: 12/27/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank Spike (A315375-BS1)

Methomyl	4.4	2.0	ug/L	4.2		105	80-120			12/28/13	
Oxamyl	4.5	20	ug/L	4.2		108	80-120			12/28/13	

Blank Spike Dup (A315375-BSD1)

3-Hydroxycarbofuran	4.1	3.0	ug/L	4.2		98	80-120	6	20	12/28/13	
Aldicarb	3.8	3.0	ug/L	4.2		90	80-120	7	20	12/28/13	
Aldicarb Sulfone	4.0	2.0	ug/L	4.2		97	80-120	10	20	12/28/13	
Aldicarb Sulfoxide	4.1	3.0	ug/L	4.2		97	80-120	11	20	12/28/13	
Carbaryl	3.9	5.0	ug/L	4.2		94	80-120	7	20	12/28/13	
Carbofuran	4.2	5.0	ug/L	4.2		100	80-120	9	20	12/28/13	
Methomyl	4.0	2.0	ug/L	4.2		96	80-120	8	20	12/28/13	
Oxamyl	4.1	20	ug/L	4.2		98	80-120	9	20	12/28/13	

Matrix Spike (A315375-MS1), Source: A3L1685-01

3-Hydroxycarbofuran	4.1	3.0	ug/L	4.2	ND	98	65-135			12/28/13	
Aldicarb	3.9	3.0	ug/L	4.2	ND	93	65-135			12/28/13	
Aldicarb Sulfone	4.2	2.0	ug/L	4.2	ND	100	65-135			12/28/13	
Aldicarb Sulfoxide	4.2	3.0	ug/L	4.2	ND	101	65-135			12/28/13	
Carbaryl	4.0	5.0	ug/L	4.2	ND	96	65-135			12/28/13	
Carbofuran	4.2	5.0	ug/L	4.2	ND	101	65-135			12/28/13	
Methomyl	4.1	2.0	ug/L	4.2	ND	98	65-135			12/28/13	
Oxamyl	4.2	20	ug/L	4.2	ND	100	65-135			12/28/13	

EPA 547 - Quality Control

Batch: A315140

Prepared: 12/21/2013

Prep Method: EPA 547

Analyst: RJB

Blank (A315140-BLK1)

Glyphosate	ND	25	ug/L							12/21/13	
Surrogate: AMPA	100			100		101	70-130			12/21/13	

Blank Spike (A315140-BS1)

Glyphosate	95	25	ug/L	100		94	70-130			12/21/13	
Surrogate: AMPA	110			100		107	70-130			12/21/13	

Blank Spike Dup (A315140-BSD1)

Glyphosate	100	25	ug/L	100		100	70-130	7	30	12/21/13	
Surrogate: AMPA	110			100		106	70-130			12/21/13	

Matrix Spike (A315140-MS1), Source: A3L1380-01

Glyphosate	110	25	ug/L	100	ND	106	70-130			12/21/13	
Surrogate: AMPA	110			100		108	70-130			12/21/13	

Matrix Spike Dup (A315140-MSD1), Source: A3L1380-01

Glyphosate	96	25	ug/L	100	ND	96	70-130	9	30	12/21/13	
Surrogate: AMPA	100			100		105	70-130			12/21/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 548.1 - Quality Control

Batch: A315232

Prepared: 12/23/2013

Prep Method: EPA 548.1

Analyst: KHH

Blank (A315232-BLK1)

Endothall ND 45 ug/L 12/26/13

Blank Spike (A315232-BS1)

Endothall 19 45 ug/L 20 95 60-111 12/26/13

Blank Spike Dup (A315232-BSD1)

Endothall 16 45 ug/L 20 81 60-111 16 46 12/26/13

Matrix Spike (A315232-MS1), Source: A3L1502-01

Endothall 13 45 ug/L 20 ND 63 10-122 12/26/13

EPA 549.2 - Quality Control

Batch: A315144

Prepared: 12/21/2013

Prep Method: EPA 549.2

Analyst: PYA

Blank (A315144-BLK1)

Diquat ND 4.0 ug/L 12/26/13

Blank Spike (A315144-BS1)

Diquat 3.6 4.0 ug/L 4.0 90 70-130 12/26/13

Blank Spike Dup (A315144-BSD1)

Diquat 3.7 4.0 ug/L 4.0 93 70-130 4 30 12/26/13

Matrix Spike (A315144-MS1), Source: A3L1441-01

Diquat 3.6 4.0 ug/L 4.0 ND 91 70-130 12/26/13

Matrix Spike (A315144-MS2), Source: A3L1451-01

Diquat 3.7 4.0 ug/L 4.0 ND 92 70-130 12/26/13

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA
State of California - NELAP	04227CA	State of Oregon	4017
State of Washington	C997	State of Oregon - NWTTPH	4021

BSK is not accredited under the NELAC program for the following parameters:

Boron	Silica (SiO2)	Strontium
Threshold Odor		

A3L1789



California American Water

Calif3295



12202013

Turnaround: Standard
Due Date: 01/06/2014



*Required Fields

Temp: 0.4

Company/Client Name*: California American Water		Report Attention*: Travis Peterson Additional co's: Sarp Sekeroglu, RBF Consulting		Invoice To*: Accounts Payable PO#		Phone*: (831) 646-3295/(831) 646-3289 Fax*: (831) 333-1343	
E-mail*: susan.jacobson@amwater.com, travis.peterson@amwater.com							

Address*: PO Box 951		City*: Monterey		State*: CA		Zip*: 93942-0951	
Project: Water Quality Analysis -- MPWSP				Project #			
Reporting Options: <input type="checkbox"/> Trace (J-Flag) <input type="checkbox"/> Swamp <input type="checkbox"/> EDD Type: _____				How would you like your completed results sent?*			
				<input checked="" type="checkbox"/> E-Mail <input type="checkbox"/> Fax <input type="checkbox"/> Mail			
Sampler Name (Printed/Signature)*: Nathan Reynolds				TAT* <input checked="" type="checkbox"/> Standard - 10 Business Days <input type="checkbox"/> **Rush: Date Needed _____		**Surcharge	
Regulatory Carbon Copies <input type="checkbox"/> CDPH <input type="checkbox"/> Fresno Co <input type="checkbox"/> Merced Co <input type="checkbox"/> Tulare Co <input type="checkbox"/> Madera Co <input type="checkbox"/> Other _____							
Regulatory Compliance <input type="checkbox"/> EDT to California DPH System Number*: _____ <input type="checkbox"/> Geotracker # _____							

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled*		Matrix*	Comments / Station Code / WTRAX	Alkalinity, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC	Mass Balance-Dissolved: Cations and Anions	Dissolved Metals: Ba, B, Ca, Fe, Mg, Mn, K, Na, Sr, silica	Total Metals: Al, As, Cu, Fe, Mn, Zn	Dissolved: Bromide, Chloride, Nitrite, Fluoride, Sulfate, Orthophosphate-P	Dissolved: Ammonia, TKN, Phosphorus	Nitrate+Nitrite as N, Nitrate-NO3	EPA 524, 504, 505, 515, 525, 531, 547, 548, 549	EXT-Tritium, EXT-Lithium, EXT-Dissolved Iodide, EXT-Dioxin
		Date	Time											
27	ML-2 Zone # 1 (167-177 ft bgs)	12-17-13	16:45	water	Seawater salinity levels. Lab to filter dissolved metals. Lab to filter Diss. Ammonia, TKN, P _____	X	X	X	X	X	X	X	X	X

Field Parameters: Temp = 17.3 °C
 pH = 6.86
 Sp Cond = 34730 µS/cm
 Turb = 1.68 NTU

Relinquished by (Signature and Printed Name): Nathan Reynolds		Company: GEOSCIENCE		Date: 6/18	Time: 9:00am	Received by (Signature and Printed Name): S-2-3		Company: RBF	
Relinquished by (Signature and Printed Name):		Company:		Date:	Time:	Received by (Signature and Printed Name):		Company:	
Received for Lab by (Signature and Printed Name):				Date: 12/20/13	Time: 1:15	Payment Received at Delivery:		Check / Cash	
Shipping Method: ONTRAC		UPS		GSO		WALK-IN		FED EX	
Cooling Method: Wet		Dry		None		Amount:		PIA#:	
Custody Seal: Y/N		Chilling Process: Y/N		Date:		Amount:		PIA#:	

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agree to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSK_LabTermsConditions.pdf



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$		Yes	No	NA	Were correct containers and preservatives received for the tests requested?		Yes	No	NA
	If samples were taken today, is there evidence that chilling has begun?		Yes	No	NA	Were there bubbles in the VOA vials? (Volatiles Only)		Yes	No	NA
	Did all bottles arrive unbroken and intact?		Yes	No	NA	Was a sufficient amount of sample received?		Yes	No	NA
	Did all bottle labels agree with COC?		Yes	No	NA	Do samples have a hold time <72 hours?		Yes	No	NA
	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?		Yes	No	NA	Was PM notified of discrepancies? PM: _____ By/Time: _____		Yes	No	NA
Bottles Received <small>— means preservation/chlorine checks are either N/A or are performed in the lab</small>	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?							
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—							
	None (P) ^{White Cap}	—	—							
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y	N						
	HNO_3 (P) ^{Red Cap}	—	—							
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y	N						
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y	N						
	NaOH + ZnAc (P)	pH ≥ 9	Y	N						
	Dissolved Oxygen 300ml (g)	—	—							
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—							
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) ^{Orange Label} 531	pH = 3	Y	N						
	NH_4Cl (AG) ^{Purple Label} 552	—	—							
	EDA (AG) ^{Brown Label} DBPs	—	—							
	Ascorbic + Maleic (AG) ^{Lt Green Label} 524.3	—	—							
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—							
Buffer pH 4 (CG)	—	—								
None (CG)	—	—								
H_3PO_4 (CG) ^{Salmon Label}	—	—								
Other:										
Asbestos 1Liter Plastic w/ Foil	—	—								
Low Level Hg / Metals Double Baggie	—	—								
Bottled Water	—	—								
Clear Glass Jar: 250 / 500 / 1 Liter	—	—								
Soil Tube Brass / Steel / Plastic	—	—								
Tedlar Bag / Plastic Bag	—	—								
Split	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials			
	S P				S P					
Comments	<p>Out of HT. + others</p>									

External



A3L1789





Weck Laboratories, Inc.
Analytical Laboratory Service - Since 1964

Certificate of Analysis

Report Date: 01/07/14 13:49
Received Date: 12/24/13 08:35
Turnaround Time: Normal

Project: A3L1789

Phones: (559) 497-2888
Fax: (559) 485-6935

P.O. #:

Attn: Michael Ng

Client: BSK Analytical Laboratories
550 West Locust Avenue
Fresno, CA 93650

Dear Michael Ng :

Enclosed are the results of analyses for samples received 12/24/2013 with the Chain of Custody document. The samples were received in good condition, at 3.2 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab Sample ID: 3L24020-01	Sample ID: A3L1789-01	Matrix: Water								
Sampled by: Client	Sampled: 12/17/13 16:45									
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Lithium, Total	270		10	ug/l	1	EPA 200.7	12/26/13	12/27/13 15:46	W3L1292	
Iodide, Dissolved	920		250	ug/l	25	EPA 9056A	1/2/14	1/2/14 19:27	W4A0050	



Certificate of Analysis

Quality Control Section

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

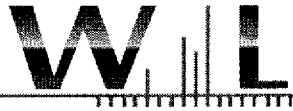
Batch W4A0050 - EPA 9056A

Table with columns: Analyte, Sample Result, QC Result, Qualifier, Units, Spike Level, %REC, %REC Limits, RPD, RPD Limit. Includes sections for Blank (W4A0050-BLK1), LCS (W4A0050-BS1), Duplicate (W4A0050-DUP1), Matrix Spike (W4A0050-MS1), and Matrix Spike Dup (W4A0050-MSD1).

Metals by EPA 200 Series Methods - Quality Control

Batch W3L1292 - EPA 200.7

Table with columns: Analyte, Sample Result, QC Result, Qualifier, Units, Spike Level, %REC, %REC Limits, RPD, RPD Limit. Includes sections for Blank (W3L1292-BLK1), LCS (W3L1292-BS1), Matrix Spike (W3L1292-MS1), and Matrix Spike Dup (W3L1292-MSD1).



Certificate of Analysis

Notes:

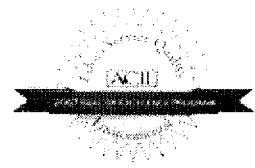
The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Kim G Tu (Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

- ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
- Sub Subcontracted analysis, original report enclosed.
- DL Method Detection Limit
- RL Method Reporting Limit
- MDA Minimum Detectable Activity
- NR Not Reportable



January 13, 2014

Mr. Michael Ng
BSK Analytical Laboratories
1414 Stanislaus St.
Fresno, CA 93706

RE: Project: A3L1789
Pace Project No.: 30110777

Dear Mr. Ng:

Enclosed are the analytical results for sample(s) received by the laboratory on January 03, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins

jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

CERTIFICATIONS

Project: A3L1789
Pace Project No.: 30110777

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
ACLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana/TNI Certification #: LA080002
Louisiana/TNI Certification #: 4086
Maine Certification #: PA0091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification

Missouri Certification #: 235
Montana Certification #: Cert 0082
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: ANTE
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia Certification #: 143
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: A3L1789
Pace Project No.: 30110777

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30110777001	A3L1789-01	Water	12/17/13 16:45	01/03/14 10:05

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: A3L1789
Pace Project No.: 30110777

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30110777001	A3L1789-01	EPA 906.0	SLA	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: A3L1789
Pace Project No.: 30110777

Method: EPA 906.0
Description: 906.0 Tritium
Client: BSK Analytical Laboratories
Date: January 13, 2014

General Information:

1 sample was analyzed for EPA 906.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: A3L1789
 Pace Project No.: 30110777

Sample: A3L1789-01 **Lab ID:** 30110777001 Collected: 12/17/13 16:45 Received: 01/03/14 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Tritium	EPA 906.0	-4.86 ± 115 (204)	pCi/L	01/12/14 22:36	10028-17-8	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: A3L1789
Pace Project No.: 30110777

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER

A3L1789

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical-Radiochem
1638 Roseytown Rd Ste 2,3,4
Greensburg, PA 15601
Phone: (724) 850-5600
Fax: (724) 722-5208
Turnaround (Days) ~~Standard~~
QC Deliverables: I ~~St~~ III IV

30110777

Sample ID	Samp Desc	Comments	Sample Date
A3L1789-01	ML-Z Zone#1 (167-177 ft bgs)		12/17/2013 16:45 001
	Matrix: Water	OK to run out of Hold Time	
	Analysis <u>2.50 um Al w/ none</u>		
	EXT-Tritium	Non preserved glass container	

Released By [Signature] Date 12/26/13 Received By [Signature] Date 1-3-14/2015

Released By _____ Date _____ Received By _____ Date _____

Sample Condition Upon Receipt



Client Name: Bsk Project # 30110777

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 12 93X 911 03 6046 077

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: Bubble Wrap Bubble Bags None Other Styrofoam

Thermometer Used: 5 6 7

Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature N/A
Temp should be above freezing to 6°C.

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: MAI 13-14

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>W1</u>	
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: <u>MAI</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Carina Serrano

Date: 1/13/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Quality Control Sample Performance Assessment

Analyst: SLA
 Date: 1/13/2014 Method: EPA 905.0
 Worklist: 18325 SOP: PGR-R-001
 Matrix: DW MB Sample ID: 677836

Method Blank Assessment						
Analyte	Activity	1.96 Sig Unc.	MDC	Critical Value	Flag	Assessment
Tritium	23.8400	114.4000	200.1000	94.09000		

Laboratory Control Sample Assessment						
	LCS	LCSD	LCS	LCSD	LCS	LCSD
Analyte:	Tritium					
Count Date:	1/13/14 0:39	1/13/14 1:40				
Spike I.D.:	10-003	10-003				
Spike Concentration (pCi/L):	2503.320	2503.304				
Volume Used (mL):	0.100	0.100				
Aliquot Volume (L, g, FL):	0.100	0.100				
Target Conc. (pCi/L, g, FL):	2423.350	2451.576				
1.96 Sigma Uncertainty (Calculated):	66.487	67.271				
Result (pCi/L, g, FL):	2280.550	1953.250				
1.96 Sigma Unc:	228.300	204.900				
% Recovery:	94.11%	79.67%				
Assessment:	Pass	Pass				
Upper % Recovery Limits:	125.00%	125.00%				
Lower % Recovery Limits:	75.00%	75.00%				

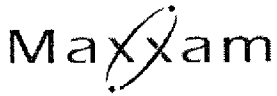
Duplicate Sample Assessment	
LCS/LCSD Y or N?:	Y
Analyte:	Tritium
Sample I.D.:	LCS18325
Duplicate Sample I.D.:	LCSD18325
Sample Result (pCi/L, g, FL):	2280.5500
1.96 Sigma Unc:	228.3000
Sample Duplicate Result (pCi/L, g, FL):	1953.2500
Duplicate Sample 1.96 Sigma Unc:	204.9000
Either results below MDC?:	NO
Relative Percent Difference:	15.46%
Assessment:	Pass
% RPD Limit:	25.00%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC

Comments:

SLA 1/13/14

Sample Matrix Spike Control Assessment		
Analyte:	Tritium	Tritium
Sample Collection Date:	12/15/2013	12/30/2013
Sample I.D.:	92183458001	30110753001
Sample MS I.D.:	92183458001MS	30110753001MS
Sample MSD I.D.:		
Spike I.D.:	10-003	10-003
MS/MSD Decay Corrected Spike Conc. (pCi/L):	2514.142	2508.731
Spike Volume Used in MS (mL):	0.20	0.20
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, FL):	0.1055	0.1041
MS Target Conc. (pCi/L, g, FL):	4721.637	4821.237
MSD Aliquot (L, g, FL):		
MSD Target Conc. (pCi/L, g, FL):		
MS Spike uncertainty (calculated):	129.567	132.295
MSD Spike uncertainty (calculated):		
Sample Result:	58.280	31.280
Sample 1.96 Sigma Unc.:	123.600	116.000
Sample Matrix Spike Result:	4443.880	4304.400
Sample MS 1.96 Sigma Unc.:	238.200	225.000
Sample Matrix Spike Duplicate Result:		
Sample MSD 1.96 Sigma Unc.:		
MS % Recovery:	92.88%	88.63%
MSD % Recovery:		
MS Assessment:	Pass	Pass
MSD Assessment:		
MS/MSD Upper % Recovery Limits:	125.00%	125.00%
MS/MSD Lower % Recovery Limits:	75.00%	75.00%
Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Analyte:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Sample Matrix Spike Result:		
Sample Matrix Spike 1.96 Sigma Unc.:		
Sample Matrix Spike Duplicate Result:		
Sample Matrix Spike Duplicate 1.96 Sigma Unc.:		
MS/MSD Relative Percent Difference:		
MS/MSD RPD Assessment:		
% RPD Limit:		



Your Project #: A3L1789
 Your C.O.C. #: na

Attention: Michael Ng
 BSK Analytical Laboratories
 1414 Stanislaus Street
 Fresno, CA
 USA 93706

Report Date: 2014/01/27
 Report #: R2806448
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B402009
Received: 2014/01/07, 14:30
 Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
2,3,7,8-TCDD in Water (1613B)	1	2014/01/15	2014/01/26	BRL SOP-00410	EPA 1613B mod.

Remarks:

The lab certifies that the test results meet all requirements of NELAC, where applicable.
 * RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

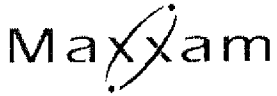
Encryption Key

Marsela Wijaya
 27 Jan 2014 17:31:39 -05:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
 Ivana Vukovic, Env Project Manager
 Email: IVukovic@maxxam.ca
 Phone# (905) 817-5700

=====

This report has been generated and distributed using a secure automated process.
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.
 Maxxam Analytics Inc. is a NELAC accredited laboratory. Certificate # CANA001. Use of the NELAC logo however does not insure that Maxxam is accredited for all of the methods indicated. This certificate shall not be reproduced except in full, without the written approval of Maxxam Analytics Inc.

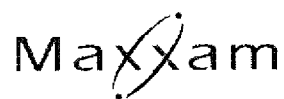


Maxxam Job #: B402009
Report Date: 2014/01/27

BSK Analytical Laboratories
Client Project #: A3L1789

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		U19295						
Sampling Date		2013/12/17 16:45						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	A3L1789-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Dioxins & Furans								
2,3,7,8-Tetra CDD *	pg/L	0.82 U	0.82	4.2	1.00	0.820		3486907
TOTAL TOXIC EQUIVALENCY	pg/L					0.820		
Surrogate Recovery (%)								
37CL4 2378 Tetra CDD *	%	88						3486907
C13-2378 TetraCDD *	%	94						3486907
EDL = Estimated Detection Limit RDL = Reportable Detection Limit TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds QC Batch = Quality Control Batch * CDD = Chloro Dibenzo-p-Dioxin								

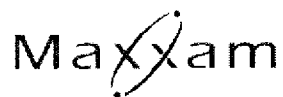


Maxxam Job #: B402009
Report Date: 2014/01/27

BSK Analytical Laboratories
Client Project #: A3L1789

GENERAL COMMENTS

Results relate only to the items tested.



Maxxam Job #: B402009
Report Date: 2014/01/27

BSK Analytical Laboratories
Client Project #: A3L1789

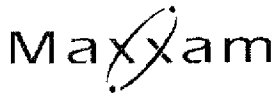
QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
3486907	CXU	Spiked Blank	2,3,7,8-Tetra CDD	2014/01/26		76	%	67 - 158
			37CL4 2378 Tetra CDD	2014/01/26		84	%	40 - 130
			C13-2378 TetraCDD	2014/01/26		89	%	24 - 164
3486907	CXU	Method Blank	2,3,7,8-Tetra CDD	2014/01/26	0.83, EDL=0.83		pg/L	
			37CL4 2378 Tetra CDD	2014/01/26		81	%	40 - 130
			C13-2378 TetraCDD	2014/01/26		87	%	24 - 164

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



Maxxam Job #: B402009
Report Date: 2014/01/27

BSK Analytical Laboratories
Client Project #: A3L1789

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Kay Shaw, C. Chem, Sr Scientific Specialist, HRMS Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



SUBCONTRACT ORDER

A3L1789

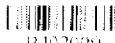
7-Jan-14 14:30

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Maxxam Analytics
PO Box 57437 Station A
Toronto, ON M9W5M5
Phone: (905) 817-5784
Fax:
Turnaround (Days): Standard
QC Deliverables: 1 Std. 1 IV

Ivana Vučkovic

13402009
M P 1 NV-906

Sample ID	Sample Desc	Comments	Sample Date
A3L1789-01	ML-Z, Zone#1 (167-177 ft bgs)		12/17/2013 10:45
	Main: Water	OK to run out of Hold Time	
	Analysis EXT-Dioxin-GW matrix, EPA 1613 2,3,7,8-TCDF	ILAC	

Released By: *[Signature]* Date: 1/14/14
 Received By: *[Signature]* Date: Fed Exp
 Released By: *[Signature]* Date: 1/14/14
 Received By: *[Signature]* Date: 1/14/14 14:30
 4.1/4.4/4.1°C Page 1 of 3

CERTIFICATE OF ANALYSIS

Client: California American Water-Monterey P.O.BOX 951 Monterey CA, 93942-0951	Report Date: 03/06/14 09:27
Attention: Travis Peterson	Received Date: 01/14/14 09:15
Phone: (831) 646-3269	Turn Around: Normal
Fax: -	Client Project: Monterey Peninsula Water Supply Project (MPWSP)
Work Order(s): 4A14004	

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

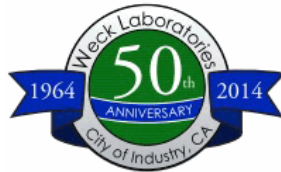
Dear Travis Peterson :

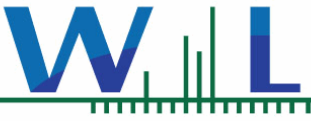
Enclosed are the results of analyses for samples received 01/14/14 09:15 with the Chain of Custody document. The samples were received in good condition, at 3.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Hai Van Nguyen
Project Manager





California American Water-Monterey
P.O.BOX 951
Monterey CA, 93942-0951

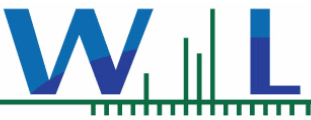
Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
ML-3 Zone # 1 (180-190 ftbgs)	Nathan Reynolds		4A14004-01	Water	01/11/14 16:00

ANALYSES

- Anions by IC, EPA Method 300.0/300.1/326
- Carbamates and Urea Pesticides
- Chlorinated Herbicides
- Chlorinated Pesticides and/or PCBs
- Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods
- Diquat and Paraquat by EPA 549.2
- Endothall By EPA 548.1
- EPA 1613B mod.
- Fumigants by EPA Method 504.1
- Glyphosate by EPA 547
- Metals by EPA 200 Series Methods
- Semivolatile Organic Compounds by GC/MS
- Subcontracted Analyses
- Volatile Organic Compounds by EPA Method 524.2



California American Water-Monterey
P.O.BOX 951
Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:27

4A14004-01 ML-3 Zone # 1 (180-190 ftbgs)

Sampled: 01/11/14 16:00

Sampled By: Nathan Reynolds

Matrix: Water

Anions by IC, EPA Method 300.0/300.1/326

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chloride, Total	3700	50	mg/l	100	01/14/14 20:52	
Fluoride, Total	ND	1.0	mg/l	10	01/14/14 20:52	M-05
Sulfate as SO4	370	5.0	mg/l	10	01/14/14 20:52	

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Bromide	13000	500	ug/l	50	01/21/14 15:14	
Surr: Dichloroacetate	100 %	Conc:500	90-115	%		

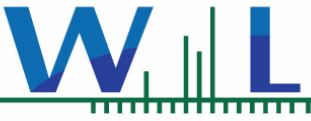
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Iodide, Dissolved	100	75	ug/l	7.5	02/20/14 15:41	O-14

Carbamates and Urea Pesticides

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
3-Hydroxycarbofuran	ND	2.0	ug/l	1	01/20/14 23:50	
Aldicarb	ND	2.0	ug/l	1	01/20/14 23:50	
Aldicarb sulfone	ND	2.0	ug/l	1	01/20/14 23:50	
Aldicarb sulfoxide	ND	2.0	ug/l	1	01/20/14 23:50	
Carbaryl	ND	2.0	ug/l	1	01/20/14 23:50	
Carbofuran	ND	2.0	ug/l	1	01/20/14 23:50	
Methiocarb	ND	2.0	ug/l	1	01/20/14 23:50	
Methomyl	ND	2.0	ug/l	1	01/20/14 23:50	
Oxamyl	ND	2.0	ug/l	1	01/20/14 23:50	
Propoxur (Baygon)	ND	2.0	ug/l	1	01/20/14 23:50	

Chlorinated Herbicides

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
2,4,5-T	ND	0.20	ug/l	1	01/25/14 03:23	
2,4,5-TP (Silvex)	ND	0.20	ug/l	1	01/25/14 03:23	
2,4-D	ND	0.40	ug/l	1	01/25/14 03:23	
2,4-DB	ND	2.0	ug/l	1	01/25/14 03:23	
3,5-Dichlorobenzoic acid	ND	1.0	ug/l	1	01/25/14 03:23	
Acifluorfen	ND	0.40	ug/l	1	01/25/14 03:23	
Bentazon	ND	2.0	ug/l	1	01/25/14 03:23	
Dalapon	ND	0.40	ug/l	1	01/25/14 03:23	
DCPA	ND	0.10	ug/l	1	01/25/14 03:23	
Dicamba	ND	0.60	ug/l	1	01/25/14 03:23	



California American Water-Monterey
P.O.BOX 951
Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:27

4A14004-01 ML-3 Zone # 1 (180-190 ftbgs)

Sampled: 01/11/14 16:00

Sampled By: Nathan Reynolds

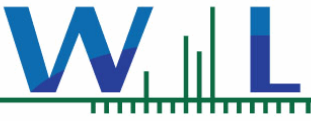
Matrix: Water

Chlorinated Herbicides

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 515.3	Batch: W4A0564	Prepared: 01/15/14 08:23	Analyst: mxw			
Dichloroprop	ND	0.30	ug/l	1	01/25/14 03:23	
Dinoseb	ND	0.40	ug/l	1	01/25/14 03:23	
Pentachlorophenol	ND	0.20	ug/l	1	01/25/14 03:23	
Picloram	ND	0.60	ug/l	1	01/25/14 03:23	
Surr: 2,4-DCAA	97 %	Conc:9.66	70-130	%		

Chlorinated Pesticides and/or PCBs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 508	Batch: W4A0617	Prepared: 01/16/14 08:43	Analyst: mxw			
4,4'-DDD	ND	0.010	ug/l	1	01/29/14 22:21	
4,4'-DDE	ND	0.010	ug/l	1	01/29/14 22:21	
4,4'-DDT	ND	0.010	ug/l	1	01/29/14 22:21	
Aldrin	ND	0.010	ug/l	1	01/29/14 22:21	
alpha-BHC	ND	0.010	ug/l	1	01/29/14 22:21	
Aroclor 1016	ND	0.10	ug/l	1	01/29/14 22:21	
Aroclor 1221	ND	0.10	ug/l	1	01/29/14 22:21	
Aroclor 1232	ND	0.10	ug/l	1	01/29/14 22:21	
Aroclor 1242	ND	0.10	ug/l	1	01/29/14 22:21	
Aroclor 1248	ND	0.10	ug/l	1	01/29/14 22:21	
Aroclor 1254	ND	0.10	ug/l	1	01/29/14 22:21	
Aroclor 1260	ND	0.10	ug/l	1	01/29/14 22:21	
beta-BHC	ND	0.010	ug/l	1	01/29/14 22:21	
Chlordane (tech)	ND	0.10	ug/l	1	01/29/14 22:21	
Chlorothalonil	ND	0.050	ug/l	1	01/29/14 22:21	
delta-BHC	ND	0.010	ug/l	1	01/29/14 22:21	
Dieldrin	ND	0.010	ug/l	1	01/29/14 22:21	
Endosulfan I	ND	0.010	ug/l	1	01/29/14 22:21	
Endosulfan II	ND	0.010	ug/l	1	01/29/14 22:21	
Endosulfan sulfate	ND	0.010	ug/l	1	01/29/14 22:21	
Endrin	ND	0.010	ug/l	1	01/29/14 22:21	
Endrin aldehyde	ND	0.010	ug/l	1	01/29/14 22:21	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	01/29/14 22:21	
Heptachlor	ND	0.010	ug/l	1	01/29/14 22:21	
Heptachlor epoxide	ND	0.010	ug/l	1	01/29/14 22:21	
Hexachlorobenzene	ND	0.010	ug/l	1	01/29/14 22:21	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	01/29/14 22:21	
Methoxychlor	ND	0.010	ug/l	1	01/29/14 22:21	
PCBs, Total	ND	0.50	ug/l	1	01/29/14 22:21	
Propachlor	ND	0.050	ug/l	1	01/29/14 22:21	
Toxaphene	ND	1.0	ug/l	1	01/29/14 22:21	



California American Water-Monterey
P.O.BOX 951
Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:27

4A14004-01 ML-3 Zone # 1 (180-190 ftbgs)

Sampled: 01/11/14 16:00

Sampled By: Nathan Reynolds

Matrix: Water

Chlorinated Pesticides and/or PCBs

Method: EPA 508	Batch: W4A0617	Prepared: 01/16/14 08:43	Analyst: mxw	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
Trifluralin	ND	0.010	ug/l 1 01/29/14 22:21	
Surr: Decachlorobiphenyl	23 %	Conc:0.0228	70-130 %	S-GC
Surr: Tetrachloro-meta-xylene	78 %	Conc:0.0783	70-130 %	

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 140.1	Batch: W4A0522	Prepared: 01/14/14 11:32	Analyst: nra	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
Threshold Odor Number	4.0	1.0	T.O.N. 4 01/14/14 11:52	O-09

Method: EPA 180.1	Batch: W4A0520	Prepared: 01/14/14 10:53	Analyst: nra	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
Turbidity	160	0.10	NTU 1 01/14/14 11:24	O-09

Method: EPA 350.1	Batch: W4A0596	Prepared: 01/15/14 14:35	Analyst: rjs	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
Ammonia as N, Dissolved	10	2.0	mg/l 20 01/17/14 14:26	

Method: EPA 351.2	Batch: W4A0524	Prepared: 01/14/14 12:34	Analyst: rjs	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
TKN, Soluble	9.7	1.0	mg/l 10 01/17/14 17:00	

Method: EPA 353.2	Batch: W4A0535	Prepared: 01/14/14 13:08	Analyst: MBC	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
Nitrate as NO3	ND	0.50	mg/l 1 01/14/14 16:08	O-09
NO2+NO3 as N	ND	100	ug/l 1 01/14/14 16:08	

Method: EPA 365.1	Batch: W4A0544	Prepared: 01/14/14 14:48	Analyst: htl	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
o-Phosphate as P	0.0039	0.0020	mg/l 1 01/14/14 15:46	**

Method: EPA 365.1	Batch: W4A0809	Prepared: 01/20/14 14:19	Analyst: htl	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
Phosphorus, Dissolved	0.078	0.010	mg/l 1 01/23/14 10:47	

Method: SM 2120B	Batch: W4A0533	Prepared: 01/14/14 13:03	Analyst: nra	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
Color	ND	3.0	Color Units 1 01/14/14 13:28	O-09

Method: SM 2320B	Batch: W4A0723	Prepared: 01/17/14 13:33	Analyst: ajp	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Travis Peterson
California American Water
836 Carmel Ave.
Monterey, CA 93940

RE: Report for A3L1716 Water Quality Analysis

Dear Travis Peterson,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 12/20/2013. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Michael Ng, Project Manager

If additional clarification of any information is required, please contact your Project Manager, Michael Ng, at (800) 877-8310 or (559) 497-2888 x118.



Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: California American Water
Report To: Travis Peterson
Project #: Water Quality Analysis - MPWSP
Received: 12/20/2013 - 15:00
Report Due: 1/07/2014

Invoice To: California American Water
Invoice Attn: susan.jacobson@amwater.com
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 0.2	COC/Labels Agree
	Preservation Confirmed
	Received On Wet Ice
	Received On Blue Ice
	Packing Material - Other
	Sample(s) were received in temperature range.
	Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- DL1.0 Sample required a dilution due to the matrix or high concentration of a non-target analyte.
- HT1.3 Holding time exceeded. Sample was analyzed past the holding time.
- HT1.6 Holding time exceeded. The holding time for this analysis is a recommendation and is not mandated by any state or federal agency.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- MS1.4 Matrix spike recovery data unreliable due to significant parent sample concentration relative to fortification level (>4x).

Report Distribution

Recipient(s)	Report Format
Travis Peterson	Final.rpt
Sarp Sekeroglu	Final.rpt
Andrew Kieta	final.rpt

Certificate of Analysis

Sample ID: A3L1716-01
Sampled By: Nathan Reynolds
Sample Description: ML-2 Zone #2 (90-100 ftbgs)

Sample Date - Time: 12/19/13 - 10:45
Matrix: Water
Sample Type: Grab

Field Data: pH=6.67 Temp=16.4 °C Cond.=11508 umho Turb. =0.72 ntu

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Alkalinity as CaCO3	SM 2320 B	180	3.0	mg/L	1	A315183	12/24/13	12/24/13	
Bicarbonate as CaCO3	SM 2320 B	180	3.0	mg/L	1	A315183	12/24/13	12/24/13	
Carbonate as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A315183	12/24/13	12/24/13	
Hydroxide as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A315183	12/24/13	12/24/13	
Ammonia as N	SM 4500-NH3 G	1.0	0.10	mg/L	1	A315303	12/26/13	12/27/13	
Bromide	EPA 300.1	14	0.25	mg/L	50	A315371	12/27/13	12/27/13	
Surrogate: Dichloroacetate	EPA 300.1	101 %	<i>Acceptable range: 90-115 %</i>						
Chloride	EPA 300.0	3900	100	mg/L	100	A315129	12/23/13	12/23/13	
Color, Apparent	SM 1210 B	10	1.0	CU	1	A315108	12/20/13 17:07	12/20/13	
Conductivity @ 25C	SM 2510 B	11000	1.0	umhos/cm	1	A315183	12/24/13	12/24/13	
Fluoride	EPA 300.0	ND	0.50	mg/L	5	A315318	12/26/13	12/26/13	DL1.0
Mass Balance-Anions		120		meq/L					
Mass Balance-Dissolved Cations		120		meq/L					
MBAS, Calculated as LAS, mol wt 340	SM 5540 C	ND	0.050	mg/L	1	A315096	12/20/13 17:18	12/20/13	
Nitrate as NO3	EPA 300.0	ND	100	mg/L	100	A315129	12/23/13 15:36	12/23/13	DL1.0, HT1.3
Nitrite as N	EPA 300.0	ND	5.0	mg/L	100	A315129	12/23/13 15:36	12/23/13	DL1.0, HT1.3
Threshold Odor	SM 2150 B	1.0	1.0	T.O.N.	1	A315108	12/20/13 17:07	12/20/13	HT1.6
Orthophosphate as P	SM 4500-P E	0.079	0.010	mg/L	1	A315135	12/20/13 18:54	12/20/13	
pH (1)	SM 4500-H+ B	7.6		pH Units	1	A315183	12/24/13	12/24/13	
pH Temperature in °C		19.9							
Phosphorus - Dissolved (1)	EPA 365.4	ND	0.10	mg/L	1	A315207	12/23/13	12/26/13	
Sulfate as SO4	EPA 300.0	340	200	mg/L	100	A315129	12/23/13	12/23/13	
Total Dissolved Solids	SM 2540C	8100	5.0	mg/L	1	A315292	12/26/13	12/30/13	
Total Kjeldahl Nitrogen - Dissolved (1)	EPA 351.2	1.5	1.0	mg/L	1	A315207	12/23/13	12/27/13	
Total Oxidizable Nitrogen, as N - Dissolved (1)	SM 4500-NO3 F	ND	0.10	mg/L	1	A315381	12/30/13	12/30/13	
Turbidity	SM 2130 B	2.7	0.10	NTU	1	A315108	12/20/13 17:07	12/20/13	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.7	ND	0.050	mg/L	1	A315150	12/23/13	12/30/13	
Arsenic	EPA 200.8	ND	2.0	ug/L	1	A315150	12/23/13	12/27/13	
Barium - Dissolved (1)	EPA 200.7	0.38	0.050	mg/L	1	A315133	12/20/13	12/27/13	
Boron - Dissolved (1)	EPA 200.7	0.40	0.10	mg/L	1	A315133	12/20/13	12/27/13	
Calcium	EPA 200.7	450	0.10	mg/L	1	A315150	12/23/13	12/30/13	
Calcium - Dissolved (1)	EPA 200.7	460	0.10	mg/L	1	A315133	12/20/13	12/27/13	
Copper	EPA 200.8	15	5.0	ug/L	1	A315150	12/23/13	12/27/13	
Hardness as CaCO3	SM 2340B	2500	0.41	mg/L					
Iron	EPA 200.7	0.50	0.030	mg/L	1	A315150	12/23/13	12/30/13	
Iron - Dissolved (1)	EPA 200.7	0.14	0.030	mg/L	1	A315133	12/20/13	12/27/13	

Certificate of Analysis

Sample ID: A3L1716-01
Sampled By: Nathan Reynolds
Sample Description: ML-2 Zone #2 (90-100 ftbgs)

Sample Date - Time: 12/19/13 - 10:45
Matrix: Water
Sample Type: Grab

Field Data: pH=6.67 Temp=16.4 °C Cond.=11508 umho Turb.=0.72 ntu

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Magnesium	EPA 200.7	340	0.10	mg/L	1	A315150	12/23/13	12/30/13	
Magnesium - Dissolved (1)	EPA 200.7	360	0.10	mg/L	1	A315133	12/20/13	12/27/13	
Manganese	EPA 200.7	0.68	0.010	mg/L	1	A315150	12/23/13	12/30/13	
Manganese - Dissolved (1)	EPA 200.7	0.71	0.010	mg/L	1	A315133	12/20/13	12/27/13	
Potassium - Dissolved (1)	EPA 200.7	34	2.0	mg/L	1	A315133	12/20/13	12/27/13	
Silica (SiO ₂) - Dissolved (1)	EPA 200.7	38	0.20	mg/L	1	A315133	12/20/13	12/27/13	
Sodium - Dissolved (1)	EPA 200.7	1500	20	mg/L	20	A315133	12/20/13	12/27/13	
Strontium - Dissolved (1)	EPA 200.8	4100	5.0	ug/L	5	A315133	12/20/13	12/27/13	
Zinc	EPA 200.7	ND	0.050	mg/L	1	A315150	12/23/13	12/30/13	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A315261	12/24/13	12/25/13	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A315261	12/24/13	12/25/13	
Surrogate: TCMX	EPA 504.1	115 %	Acceptable range: 70-130 %						
<u>Organohalide Pesticides and PCBs by GC-ECD</u>									
Aldrin	EPA 505	ND	0.075	ug/L	1	A315261	12/24/13	12/25/13	
Chlordane	EPA 505	ND	0.10	ug/L	1	A315261	12/24/13	12/25/13	
Chlorothalonil	EPA 505	ND	5.0	ug/L	1	A315261	12/24/13	12/25/13	
Dieldrin	EPA 505	ND	0.020	ug/L	1	A315261	12/24/13	12/25/13	
Endrin	EPA 505	ND	0.10	ug/L	1	A315261	12/24/13	12/25/13	
Heptachlor	EPA 505	ND	0.010	ug/L	1	A315261	12/24/13	12/25/13	
Heptachlor Epoxide	EPA 505	ND	0.010	ug/L	1	A315261	12/24/13	12/25/13	
Hexachlorobenzene	EPA 505	ND	0.50	ug/L	1	A315261	12/24/13	12/25/13	
Hexachlorocyclopentadiene	EPA 505	ND	1.0	ug/L	1	A315261	12/24/13	12/25/13	
Lindane	EPA 505	ND	0.20	ug/L	1	A315261	12/24/13	12/25/13	
Methoxychlor	EPA 505	ND	10	ug/L	1	A315261	12/24/13	12/25/13	
PCB Aroclor Screen	EPA 505	ND	0.50	ug/L	1	A315261	12/24/13	12/25/13	
Toxaphene	EPA 505	ND	1.0	ug/L	1	A315261	12/24/13	12/25/13	
Trifluralin	EPA 505	ND	1.0	ug/L	1	A315261	12/24/13	12/25/13	
Surrogate: TCMX	EPA 505	115 %	Acceptable range: 70-130 %						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A315300	12/26/13	12/28/13	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A315300	12/26/13	12/28/13	
2,4-D	EPA 515.3	ND	10	ug/L	1	A315300	12/26/13	12/28/13	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A315300	12/26/13	12/28/13	
Dalapon	EPA 515.3	ND	10	ug/L	1	A315300	12/26/13	12/28/13	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A315300	12/26/13	12/28/13	

Certificate of Analysis

Sample ID: A3L1716-01
Sampled By: Nathan Reynolds
Sample Description: ML-2 Zone #2 (90-100 ftbgs)

Sample Date - Time: 12/19/13 - 10:45
Matrix: Water
Sample Type: Grab

Field Data: pH=6.67 Temp=16.4 °C Cond.=11508 umho Turb. =0.72 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A315300	12/26/13	12/28/13	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A315300	12/26/13	12/28/13	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A315300	12/26/13	12/28/13	
Surrogate: DCPAA	EPA 515.3	81 %	<i>Acceptable range: 70-130 %</i>						
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A315174	12/23/13	12/24/13	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A315174	12/23/13	12/24/13	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A315174	12/23/13	12/24/13	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A315174	12/23/13	12/24/13	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A315174	12/23/13	12/24/13	
Bromacil	EPA 525.2	ND	10	ug/L	1	A315174	12/23/13	12/24/13	BS1.0
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A315174	12/23/13	12/24/13	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A315174	12/23/13	12/24/13	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A315174	12/23/13	12/24/13	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A315174	12/23/13	12/24/13	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A315174	12/23/13	12/24/13	
Molinat	EPA 525.2	ND	2.0	ug/L	1	A315174	12/23/13	12/24/13	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A315174	12/23/13	12/24/13	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A315174	12/23/13	12/24/13	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A315174	12/23/13	12/24/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	102 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A315323	12/26/13	12/27/13	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A315323	12/26/13	12/27/13	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A315323	12/26/13	12/27/13	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A315323	12/26/13	12/27/13	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A315323	12/26/13	12/27/13	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A315323	12/26/13	12/27/13	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A315323	12/26/13	12/27/13	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A315323	12/26/13	12/27/13	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A315140	12/21/13	12/21/13	
Surrogate: AMPA	EPA 547	102 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A315322	12/26/13	12/27/13	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A315144	12/21/13	12/26/13	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A315129

Prepared: 12/23/2013

Prep Method: Method Specific Preparation

Analyst: EMH

Blank (A315129-BLK1)

Chloride	ND	1.0	mg/L							12/23/13	
Nitrate as NO3	ND	1.0	mg/L							12/23/13	
Nitrite as N	ND	0.050	mg/L							12/23/13	
Sulfate as SO4	ND	2.0	mg/L							12/23/13	

Blank Spike (A315129-BS1)

Chloride	50	1.0	mg/L	50		99	90-110			12/23/13	
Nitrate as NO3	49	1.0	mg/L	50		99	90-110			12/23/13	
Nitrite as N	0.50	0.050	mg/L	0.50		99	90-110			12/23/13	
Sulfate as SO4	49	2.0	mg/L	50		99	90-110			12/23/13	

Blank Spike Dup (A315129-BSD1)

Chloride	50	1.0	mg/L	50		100	90-110	1	20	12/23/13	
Nitrate as NO3	50	1.0	mg/L	50		100	90-110	1	20	12/23/13	
Nitrite as N	0.50	0.050	mg/L	0.50		100	90-110	1	20	12/23/13	
Sulfate as SO4	50	2.0	mg/L	50		100	90-110	1	20	12/23/13	

Matrix Spike (A315129-MS1), Source: A3L1643-04

Chloride	110	2.0	mg/L	100	9.4	100	80-120			12/23/13	
Nitrate as NO3	140	2.0	mg/L	100	43	98	80-120			12/23/13	
Nitrite as N	0.99	0.10	mg/L	1.0	ND	99	80-120			12/23/13	
Sulfate as SO4	150	4.0	mg/L	100	53	98	80-120			12/23/13	

Matrix Spike (A315129-MS2), Source: A3L1715-02

Chloride	110	2.0	mg/L	100	9.8	100	80-120			12/23/13	
Nitrate as NO3	98	2.0	mg/L	100	ND	98	80-120			12/23/13	
Nitrite as N	1.0	0.10	mg/L	1.0	ND	100	80-120			12/23/13	
Sulfate as SO4	100	4.0	mg/L	100	5.4	99	80-120			12/23/13	

Matrix Spike Dup (A315129-MSD1), Source: A3L1643-04

Chloride	110	2.0	mg/L	100	9.4	101	80-120	1	20	12/23/13	
Nitrate as NO3	140	2.0	mg/L	100	43	100	80-120	1	20	12/23/13	
Nitrite as N	1.0	0.10	mg/L	1.0	ND	101	80-120	2	20	12/23/13	
Sulfate as SO4	150	4.0	mg/L	100	53	100	80-120	1	20	12/23/13	

Matrix Spike Dup (A315129-MSD2), Source: A3L1715-02

Chloride	110	2.0	mg/L	100	9.8	102	80-120	2	20	12/23/13	
Nitrate as NO3	100	2.0	mg/L	100	ND	100	80-120	2	20	12/23/13	
Nitrite as N	1.0	0.10	mg/L	1.0	ND	102	80-120	2	20	12/23/13	
Sulfate as SO4	110	4.0	mg/L	100	5.4	101	80-120	2	20	12/23/13	

EPA 300.0 - Quality Control

Batch: A315318

Prepared: 12/26/2013

Prep Method: Method Specific Preparation

Analyst: n.a.

Blank (A315318-BLK1)

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A315318

Prepared: 12/26/2013

Prep Method: Method Specific Preparation

Analyst: n.a.

Blank (A315318-BLK1)

Fluoride	ND	0.10	mg/L							12/26/13	
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Blank Spike (A315318-BS1)

Fluoride	0.49	0.10	mg/L	0.50		98	90-110			12/26/13	
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Blank Spike Dup (A315318-BSD1)

Fluoride	0.50	0.10	mg/L	0.50		100	90-110	2	10	12/26/13	
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Matrix Spike (A315318-MS1), Source: A3L1709-02

Fluoride	1.1	0.20	mg/L	1.0	ND	99	80-120			12/26/13	
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Matrix Spike (A315318-MS2), Source: A3L1860-02

Fluoride	1.3	0.20	mg/L	1.0	0.27	98	80-120			12/26/13	
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Matrix Spike Dup (A315318-MSD1), Source: A3L1709-02

Fluoride	1.1	0.20	mg/L	1.0	ND	97	80-120	2	10	12/26/13	
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Matrix Spike Dup (A315318-MSD2), Source: A3L1860-02

Fluoride	1.3	0.20	mg/L	1.0	0.27	102	80-120	3	10	12/26/13	
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EPA 300.1 - Quality Control

Batch: A315371

Prepared: 12/27/2013

Prep Method: Method Specific Preparation

Analyst: TRL

Blank (A315371-BLK1)

Bromide	ND	0.0050	mg/L							12/27/13	
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Surrogate: Dichloroacetate	0.495			0.50		99	90-115			12/27/13	
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Blank Spike (A315371-BS1)

Bromide	0.19	0.0050	mg/L	0.20		96	85-115			12/27/13	
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Surrogate: Dichloroacetate	0.492			0.50		98	90-115			12/27/13	
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Blank Spike Dup (A315371-BSD1)

Bromide	0.19	0.0050	mg/L	0.20		97	85-115	1	10	12/27/13	
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Surrogate: Dichloroacetate	0.494			0.50		99	90-115			12/27/13	
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Matrix Spike (A315371-MS1), Source: A3L1963-02

Bromide	4.3	0.10	mg/L	2.0	2.4	93	75-125			12/27/13	
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Surrogate: Dichloroacetate	9.63			10		96	90-115			12/27/13	
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Matrix Spike (A315371-MS2), Source: A3L2009-03

Bromide	0.50	0.020	mg/L	0.40	0.13	93	75-125			12/28/13	
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Surrogate: Dichloroacetate	1.89			2.0		95	90-115			12/28/13	
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Matrix Spike Dup (A315371-MSD1), Source: A3L1963-02

Bromide	4.3	0.10	mg/L	2.0	2.4	94	75-125	0	10	12/27/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.1 - Quality Control

Batch: A315371

Prepared: 12/27/2013

Prep Method: Method Specific Preparation

Analyst: TRL

Matrix Spike Dup (A315371-MSD1), Source: A3L1963-02

Surrogate: Dichloroacetate 9.74 10 97 90-115 12/27/13

Matrix Spike Dup (A315371-MSD2), Source: A3L2009-03

Bromide 0.51 0.020 mg/L 0.40 0.13 94 75-125 1 10 12/28/13
 Surrogate: Dichloroacetate 1.96 2.0 98 90-115 12/28/13

EPA 351.2 - Quality Control

Batch: A315207

Prepared: 12/23/2013

Prep Method: Digestion

Analyst: KKC

Blank (A315207-BLK2)

Total Kjeldahl Nitrogen - Dissolved (1) ND 1.0 mg/L 12/27/13

Blank Spike (A315207-BS2)

Total Kjeldahl Nitrogen - Dissolved (1) 9.9 1.0 mg/L 10 99 90-110 12/27/13

Blank Spike Dup (A315207-BSD2)

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 105 90-110 5 10 12/27/13

Matrix Spike (A315207-MS2), Source: A3L1656-01

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 ND 100 90-110 12/27/13

Matrix Spike Dup (A315207-MSD2), Source: A3L1656-01

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 ND 99 90-110 2 10 12/27/13

EPA 365.4 - Quality Control

Batch: A315207

Prepared: 12/23/2013

Prep Method: Digestion

Analyst: KKC

Blank (A315207-BLK1)

Phosphorus - Dissolved (1) ND 0.10 mg/L 12/26/13

Blank Spike (A315207-BS1)

Phosphorus - Dissolved (1) 9.3 0.10 mg/L 10 93 90-110 12/26/13

Blank Spike Dup (A315207-BSD1)

Phosphorus - Dissolved (1) 9.9 0.10 mg/L 10 99 90-110 7 10 12/26/13

Matrix Spike (A315207-MS1), Source: A3L1656-01

Phosphorus - Dissolved (1) 9.5 0.10 mg/L 10 ND 95 90-110 12/26/13

Matrix Spike Dup (A315207-MSD1), Source: A3L1656-01

Phosphorus - Dissolved (1) 9.8 0.10 mg/L 10 ND 98 90-110 3 10 12/26/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2120 B - Quality Control

Batch: A315108

Prepared: 12/20/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A315108-BLK1)

Color, Apparent ND 1.0 CU 12/20/13

Duplicate (A315108-DUP1), Source: A3L1654-01

Color, Apparent 5.0 1.0 CU 5.0 0 20 12/20/13

Duplicate (A315108-DUP2), Source: A3L1715-01

Color, Apparent 5.0 1.0 CU 5.0 0 20 12/20/13

SM 2130 B - Quality Control

Batch: A315108

Prepared: 12/20/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A315108-BLK1)

Turbidity ND 0.10 NTU 12/20/13

Duplicate (A315108-DUP1), Source: A3L1654-01

Turbidity ND 0.10 NTU ND 20 12/20/13

Duplicate (A315108-DUP2), Source: A3L1715-01

Turbidity ND 0.10 NTU ND 20 12/20/13

SM 2150 B - Quality Control

Batch: A315108

Prepared: 12/20/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A315108-BLK1)

Threshold Odor ND 1.0 T.O.N. 12/20/13

Duplicate (A315108-DUP1), Source: A3L1654-01

Threshold Odor 1.0 1.0 T.O.N. 1.0 0 20 12/20/13

Duplicate (A315108-DUP2), Source: A3L1715-01

Threshold Odor 1.0 1.0 T.O.N. 1.0 0 20 12/20/13

SM 2320 B - Quality Control

Batch: A315183

Prepared: 12/24/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A315183-BLK1)

Alkalinity as CaCO3 ND 3.0 mg/L 12/24/13
 Bicarbonate as CaCO3 ND 3.0 mg/L 12/24/13
 Carbonate as CaCO3 ND 3.0 mg/L 12/24/13
 Hydroxide as CaCO3 ND 3.0 mg/L 12/24/13

Blank Spike (A315183-BS1)

Alkalinity as CaCO3 100 3.0 mg/L 100 100 80-120 12/23/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2320 B - Quality Control

Batch: A315183

Prepared: 12/23/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank Spike Dup (A315183-BSD1)

Alkalinity as CaCO3	100	3.0	mg/L	100		101	80-120	1	20	12/24/13	
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Duplicate (A315183-DUP1), Source: A3L1704-01

Alkalinity as CaCO3	200	3.0	mg/L		200			1	10	12/24/13	
Bicarbonate as CaCO3	200	3.0	mg/L		200			1	10	12/24/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	12/24/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	12/24/13	

Duplicate (A315183-DUP2), Source: A3L1860-02

Alkalinity as CaCO3	170	3.0	mg/L		170			3	10	12/24/13	
Bicarbonate as CaCO3	170	3.0	mg/L		170			3	10	12/24/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	12/24/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	12/24/13	

SM 2510 B - Quality Control

Batch: A315183

Prepared: 12/24/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A315183-BLK1)

Conductivity @ 25C	ND	1.0	umhos/cm							12/24/13	
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Duplicate (A315183-DUP1), Source: A3L1704-01

Conductivity @ 25C	780	1.0	umhos/cm		790			1	20	12/24/13	
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Duplicate (A315183-DUP2), Source: A3L1860-02

Conductivity @ 25C	350	1.0	umhos/cm		350			0	20	12/24/13	
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SM 2540C - Quality Control

Batch: A315292

Prepared: 12/26/2013

Prep Method: Method Specific Preparation

Analyst: DEH

Blank (A315292-BLK1)

Total Dissolved Solids	ND	5.0	mg/L							12/30/13	
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Blank Spike (A315292-BS1)

Total Dissolved Solids	980	5.0	mg/L	1000		98	70-130			12/30/13	
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Duplicate (A315292-DUP1), Source: A3L1798-01

Total Dissolved Solids	400	5.0	mg/L		400			0	20	12/30/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-H+ B - Quality Control

Batch: A315183

Prepared: 12/24/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Duplicate (A315183-DUP1), Source: A3L1704-01

pH (1)	7.8		pH Units		7.8			0	20	12/24/13	
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Duplicate (A315183-DUP2), Source: A3L1860-02

pH (1)	7.8		pH Units		7.8			0	20	12/24/13	
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SM 4500-NH3 G - Quality Control

Batch: A315303

Prepared: 12/26/2013

Prep Method: Ammonia Distillation

Analyst: KKC

Blank (A315303-BLK1)

Ammonia as N	ND	0.10	mg/L							12/27/13	
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Blank Spike (A315303-BS1)

Ammonia as N	9.6	0.10	mg/L	10		96	80-120			12/27/13	
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Blank Spike Dup (A315303-BSD1)

Ammonia as N	9.4	0.10	mg/L	10		94	80-120	3	20	12/27/13	
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Matrix Spike (A315303-MS1), Source: A3L1863-02

Ammonia as N	12	0.10	mg/L	10	2.3	94	80-120			12/27/13	
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Matrix Spike (A315303-MS2), Source: A3L1868-05

Ammonia as N	21	0.50	mg/L	10	14	75	80-120			12/27/13	MS1.0 Low
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Matrix Spike Dup (A315303-MSD1), Source: A3L1863-02

Ammonia as N	12	0.10	mg/L	10	2.3	94	80-120	1	20	12/27/13	
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Matrix Spike Dup (A315303-MSD2), Source: A3L1868-05

Ammonia as N	21	0.50	mg/L	10	14	68	80-120	3	20	12/27/13	MS1.0 Low
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SM 4500-NO3 F - Quality Control

Batch: A315381

Prepared: 12/30/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A315381-BLK1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	ND	0.10	mg/L							12/30/13	
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Blank Spike (A315381-BS1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	10	0.10	mg/L	10		104	80-120			12/30/13	
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Blank Spike Dup (A315381-BSD1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	10	0.10	mg/L	10		102	80-120	2	20	12/30/13	
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Matrix Spike (A315381-MS1), Source: A3L1608-03

Total Oxidizable Nitrogen, as N - Dissolved (1)	23	1.0	mg/L	10	14	95	80-120			12/30/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-NO3 F - Quality Control

Batch: A315381

Prepared: 12/30/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Matrix Spike (A315381-MS2), Source: A3L1789-01

Total Oxidizable Nitrogen, as N - Dissolved (1)	9.4	0.10	mg/L	10	ND	93	80-120			12/30/13	
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Matrix Spike Dup (A315381-MSD1), Source: A3L1608-03

Total Oxidizable Nitrogen, as N - Dissolved (1)	23	1.0	mg/L	10	14	90	80-120	2	20	12/30/13	
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Matrix Spike Dup (A315381-MSD2), Source: A3L1789-01

Total Oxidizable Nitrogen, as N - Dissolved (1)	9.5	0.10	mg/L	10	ND	95	80-120	1	20	12/30/13	
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SM 4500-P E - Quality Control

Batch: A315135

Prepared: 12/20/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A315135-BLK1)

Orthophosphate as P	ND	0.010	mg/L							12/20/13	
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Blank Spike (A315135-BS1)

Orthophosphate as P	0.25	0.010	mg/L	0.25		100	90-110			12/20/13	
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Blank Spike Dup (A315135-BSD1)

Orthophosphate as P	0.25	0.010	mg/L	0.25		100	90-110	0	20	12/20/13	
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Matrix Spike (A315135-MS1), Source: A3L1716-01

Orthophosphate as P	0.33	0.010	mg/L	0.25	0.079	100	80-120			12/20/13	
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Matrix Spike Dup (A315135-MSD1), Source: A3L1716-01

Orthophosphate as P	0.34	0.010	mg/L	0.25	0.079	103	80-120	2	20	12/20/13	
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SM 5540 C - Quality Control

Batch: A315096

Prepared: 12/20/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A315096-BLK1)

MBAS, Calculated as LAS, mol wt 340	ND	0.050	mg/L							12/20/13	
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Blank Spike (A315096-BS1)

MBAS, Calculated as LAS, mol wt 340	0.91	0.050	mg/L	1.0		91	80-120			12/20/13	
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Blank Spike Dup (A315096-BSD1)

MBAS, Calculated as LAS, mol wt 340	0.90	0.050	mg/L	1.0		90	80-120	2	20	12/20/13	
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Matrix Spike (A315096-MS1), Source: A3L1613-02

MBAS, Calculated as LAS, mol wt 340	0.97	0.050	mg/L	1.0	ND	97	80-120			12/20/13	
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Matrix Spike (A315096-MS2), Source: A3L1704-01

MBAS, Calculated as LAS, mol wt 340	1.0	0.050	mg/L	1.0	ND	100	80-120			12/20/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 5540 C - Quality Control

Batch: A315096

Prepared: 12/20/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Matrix Spike Dup (A315096-MSD1), Source: A3L1613-02

MBAS, Calculated as LAS, mol wt 340	1.0	0.050	mg/L	1.0	ND	100	80-120	4	20	12/20/13	
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Matrix Spike Dup (A315096-MSD2), Source: A3L1704-01

MBAS, Calculated as LAS, mol wt 340	1.0	0.050	mg/L	1.0	ND	101	80-120	1	20	12/20/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A315133

Prepared: 12/20/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A315133-BLK2)

Barium - Dissolved (1)	ND	0.050	mg/L							12/27/13	
Boron - Dissolved (1)	ND	0.10	mg/L							12/27/13	
Calcium - Dissolved (1)	ND	0.10	mg/L							12/27/13	
Iron - Dissolved (1)	ND	0.030	mg/L							12/27/13	
Magnesium - Dissolved (1)	ND	0.10	mg/L							12/27/13	
Manganese - Dissolved (1)	ND	0.010	mg/L							12/27/13	
Potassium - Dissolved (1)	ND	2.0	mg/L							12/27/13	
Silica (SiO2) - Dissolved (1)	ND	0.20	mg/L							12/27/13	
Sodium - Dissolved (1)	ND	1.0	mg/L							12/27/13	

Blank Spike (A315133-BS2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		99	85-115			12/27/13	
Boron - Dissolved (1)	0.59	0.10	mg/L	0.60		98	85-115			12/27/13	
Calcium - Dissolved (1)	10	0.10	mg/L	10		100	85-115			12/27/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		99	85-115			12/27/13	
Magnesium - Dissolved (1)	9.8	0.10	mg/L	10		98	85-115			12/27/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20		97	85-115			12/27/13	
Potassium - Dissolved (1)	9.9	2.0	mg/L	10		99	85-115			12/27/13	
Silica (SiO2) - Dissolved (1)	2.1	0.20	mg/L	2.1		100	85-115			12/27/13	
Sodium - Dissolved (1)	10	1.0	mg/L	10		100	85-115			12/27/13	

Blank Spike Dup (A315133-BSD2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		99	85-115	0	20	12/27/13	
Boron - Dissolved (1)	0.60	0.10	mg/L	0.60		99	85-115	2	20	12/27/13	
Calcium - Dissolved (1)	9.8	0.10	mg/L	10		98	85-115	2	20	12/27/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		100	85-115	1	20	12/27/13	
Magnesium - Dissolved (1)	9.8	0.10	mg/L	10		98	85-115	0	20	12/27/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20		98	85-115	1	20	12/27/13	
Potassium - Dissolved (1)	9.8	2.0	mg/L	10		98	85-115	2	20	12/27/13	
Silica (SiO2) - Dissolved (1)	2.1	0.20	mg/L	2.1		99	85-115	1	20	12/27/13	
Sodium - Dissolved (1)	9.8	1.0	mg/L	10		98	85-115	1	20	12/27/13	

Matrix Spike (A315133-MS3), Source: A3L1172-03

Barium - Dissolved (1)	0.21	0.050	mg/L	0.20	ND	105	70-130			12/27/13	
Boron - Dissolved (1)	0.65	0.10	mg/L	0.60	ND	96	70-130			12/27/13	
Calcium - Dissolved (1)	33	0.10	mg/L	10	23	96	70-130			12/27/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0	ND	99	70-130			12/27/13	
Magnesium - Dissolved (1)	9.8	0.10	mg/L	10	0.15	96	70-130			12/27/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20	ND	97	70-130			12/27/13	
Potassium - Dissolved (1)	10	2.0	mg/L	10	ND	101	70-130			12/27/13	
Silica (SiO2) - Dissolved (1)	21	0.20	mg/L	2.1	18	105	70-130			12/27/13	
Sodium - Dissolved (1)	92	1.0	mg/L	10	82	102	70-130			12/27/13	

Matrix Spike Dup (A315133-MSD3), Source: A3L1172-03

Barium - Dissolved (1)	0.21	0.050	mg/L	0.20	ND	104	70-130	1	20	12/27/13	
Boron - Dissolved (1)	0.65	0.10	mg/L	0.60	ND	95	70-130	1	20	12/27/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A315133

Prepared: 12/20/2013

Prep Method: Filtration - Metals

Analyst: NRE

Matrix Spike Dup (A315133-MSD3), Source: A3L1172-03

Calcium - Dissolved (1)	32	0.10	mg/L	10	23	93	70-130	1	20	12/27/13	
Iron - Dissolved (1)	1.9	0.030	mg/L	2.0	ND	97	70-130	1	20	12/27/13	
Magnesium - Dissolved (1)	9.6	0.10	mg/L	10	0.15	94	70-130	2	20	12/27/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20	ND	96	70-130	1	20	12/27/13	
Potassium - Dissolved (1)	10	2.0	mg/L	10	ND	100	70-130	1	20	12/27/13	
Silica (SiO2) - Dissolved (1)	20	0.20	mg/L	2.1	18	98	70-130	1	20	12/27/13	
Sodium - Dissolved (1)	92	1.0	mg/L	10	82	100	70-130	0	20	12/27/13	

EPA 200.7 - Quality Control

Batch: A315150

Prepared: 12/23/2013

Prep Method: EPA 200.2

Analyst: NRE

Blank (A315150-BLK2)

Aluminum	ND	0.050	mg/L							12/30/13	
Calcium	ND	0.10	mg/L							12/30/13	
Iron	ND	0.030	mg/L							12/30/13	
Magnesium	ND	0.10	mg/L							12/30/13	
Manganese	ND	0.010	mg/L							12/30/13	
Zinc	ND	0.050	mg/L							12/30/13	

Blank Spike (A315150-BS2)

Aluminum	0.20	0.050	mg/L	0.20		98	85-115			12/30/13	
Calcium	10	0.10	mg/L	10		100	85-115			12/30/13	
Iron	2.0	0.030	mg/L	2.0		100	85-115			12/30/13	
Magnesium	9.8	0.10	mg/L	10		98	85-115			12/30/13	
Manganese	0.20	0.010	mg/L	0.20		98	85-115			12/30/13	
Zinc	0.21	0.050	mg/L	0.20		104	85-115			12/30/13	

Blank Spike Dup (A315150-BSD2)

Aluminum	0.21	0.050	mg/L	0.20		103	85-115	6	20	12/30/13	
Calcium	10	0.10	mg/L	10		101	85-115	1	20	12/30/13	
Iron	2.1	0.030	mg/L	2.0		103	85-115	3	20	12/30/13	
Magnesium	10	0.10	mg/L	10		101	85-115	2	20	12/30/13	
Manganese	0.20	0.010	mg/L	0.20		102	85-115	3	20	12/30/13	
Zinc	0.21	0.050	mg/L	0.20		106	85-115	3	20	12/30/13	

Matrix Spike (A315150-MS3), Source: A3L1701-01

Aluminum	0.26	0.050	mg/L	0.20	ND	113	70-130			12/30/13	
Calcium	430	0.10	mg/L	10	400	246	70-130			12/30/13	MS1.0 High
Iron	1.9	0.030	mg/L	2.0	0.042	94	70-130			12/30/13	
Magnesium	280	0.10	mg/L	10	260	196	70-130			12/30/13	MS1.0 High
Manganese	0.21	0.010	mg/L	0.20	0.021	93	70-130			12/30/13	
Zinc	0.18	0.050	mg/L	0.20	ND	89	70-130			12/30/13	

Matrix Spike (A315150-MS4), Source: A3L1709-01

Aluminum	0.19	0.050	mg/L	0.20	ND	94	70-130			12/30/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A315150

Prepared: 12/23/2013

Prep Method: EPA 200.2

Analyst: PSK

Matrix Spike (A315150-MS4), Source: A3L1709-01

Calcium	48	0.10	mg/L	10	39	99	70-130			12/30/13	
Iron	1.9	0.030	mg/L	2.0	ND	97	70-130			12/30/13	
Magnesium	27	0.10	mg/L	10	17	95	70-130			12/30/13	
Manganese	0.24	0.010	mg/L	0.20	0.053	95	70-130			12/30/13	
Zinc	0.21	0.050	mg/L	0.20	ND	103	70-130			12/30/13	

Matrix Spike (A315150-MS6), Source: A3L1709-01

Calcium	46	0.10	mg/L	10	39	78	70-130			01/02/14	
Iron	1.9	0.030	mg/L	2.0	ND	96	70-130			01/02/14	
Magnesium	26	0.10	mg/L	10	17	89	70-130			01/02/14	
Manganese	0.24	0.010	mg/L	0.20	0.053	93	70-130			01/02/14	

Matrix Spike Dup (A315150-MSD3), Source: A3L1701-01

Aluminum	0.25	0.050	mg/L	0.20	ND	110	70-130	2	20	12/30/13	
Calcium	390	0.10	mg/L	10	400	NR	70-130	9	20	12/30/13	MS1.0 Low
Iron	1.9	0.030	mg/L	2.0	0.042	93	70-130	1	20	12/30/13	
Magnesium	260	0.10	mg/L	10	260	NR	70-130	8	20	12/30/13	MS1.0 Low
Manganese	0.20	0.010	mg/L	0.20	0.021	91	70-130	2	20	12/30/13	
Zinc	0.17	0.050	mg/L	0.20	ND	83	70-130	7	20	12/30/13	

Matrix Spike Dup (A315150-MSD4), Source: A3L1709-01

Aluminum	0.20	0.050	mg/L	0.20	ND	100	70-130	6	20	12/30/13	
Calcium	49	0.10	mg/L	10	39	103	70-130	1	20	12/30/13	
Iron	2.0	0.030	mg/L	2.0	ND	100	70-130	3	20	12/30/13	
Magnesium	27	0.10	mg/L	10	17	99	70-130	1	20	12/30/13	
Manganese	0.25	0.010	mg/L	0.20	0.053	98	70-130	2	20	12/30/13	
Zinc	0.21	0.050	mg/L	0.20	ND	107	70-130	3	20	12/30/13	

Matrix Spike Dup (A315150-MSD6), Source: A3L1709-01

Calcium	46	0.10	mg/L	10	39	72	70-130	1	20	01/02/14	
Iron	1.9	0.030	mg/L	2.0	ND	95	70-130	1	20	01/02/14	
Magnesium	26	0.10	mg/L	10	17	86	70-130	1	20	01/02/14	
Manganese	0.24	0.010	mg/L	0.20	0.053	93	70-130	1	20	01/02/14	

EPA 200.8 - Quality Control

Batch: A315133

Prepared: 12/20/2013

Prep Method: Filtration - Metals

Analyst: PSK

Blank (A315133-BLK3)

Strontium - Dissolved (1)	ND	1.0	ug/L							12/27/13	
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Blank Spike (A315133-BS3)

Strontium - Dissolved (1)	200	1.0	ug/L	200		100	85-115			12/27/13	
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Blank Spike Dup (A315133-BSD3)

Strontium - Dissolved (1)	200	1.0	ug/L	200		99	85-115	1	20	12/27/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.8 - Quality Control

Batch: A315133

Prepared: 12/20/2013

Prep Method: Filtration - Metals

Analyst: PSK

Matrix Spike (A315133-MS2), Source: A3L1605-05

Strontium - Dissolved (1)	430	1.0	ug/L	200	230	99	70-130			12/27/13	
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Matrix Spike (A315133-MS4), Source: A3L1172-03

Strontium - Dissolved (1)	410	1.0	ug/L	200	220	98	70-130			12/27/13	
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Matrix Spike Dup (A315133-MSD2), Source: A3L1605-05

Strontium - Dissolved (1)	430	1.0	ug/L	200	230	100	70-130	1	20	12/27/13	
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Matrix Spike Dup (A315133-MSD4), Source: A3L1172-03

Strontium - Dissolved (1)	420	1.0	ug/L	200	220	100	70-130	1	20	12/27/13	
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EPA 200.8 - Quality Control

Batch: A315150

Prepared: 12/23/2013

Prep Method: EPA 200.2

Analyst: PSK

Blank (A315150-BLK1)

Arsenic	ND	2.0	ug/L							12/27/13	
Copper	ND	5.0	ug/L							12/27/13	

Blank Spike (A315150-BS1)

Arsenic	190	2.0	ug/L	200		94	85-115			12/27/13	
Copper	190	5.0	ug/L	200		93	85-115			12/27/13	

Blank Spike Dup (A315150-BSD1)

Arsenic	190	2.0	ug/L	200		96	85-115	2	20	12/27/13	
Copper	190	5.0	ug/L	200		94	85-115	1	20	12/27/13	

Matrix Spike (A315150-MS1), Source: A3L1701-01

Arsenic	190	2.0	ug/L	200	5.0	93	70-130			12/27/13	
Copper	200	5.0	ug/L	200	29	84	70-130			12/27/13	

Matrix Spike (A315150-MS2), Source: A3L1709-01

Arsenic	190	2.0	ug/L	200	ND	96	70-130			12/27/13	
Copper	190	5.0	ug/L	200	6.7	89	70-130			12/27/13	

Matrix Spike Dup (A315150-MSD1), Source: A3L1701-01

Arsenic	190	2.0	ug/L	200	5.0	91	70-130	3	20	12/27/13	
Copper	180	5.0	ug/L	200	29	77	70-130	6	20	12/27/13	

Matrix Spike Dup (A315150-MSD2), Source: A3L1709-01

Arsenic	190	2.0	ug/L	200	ND	95	70-130	1	20	12/27/13	
Copper	190	5.0	ug/L	200	6.7	90	70-130	1	20	12/27/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A315261

Prepared: 12/24/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A315261-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							12/25/13	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							12/25/13	
Surrogate: TCMX	4.8			4.5		109	70-130			12/25/13	

Blank Spike (A315261-BS1)

Dibromochloropropane (DBCP)	0.21	0.010	ug/L	0.20		105	70-130			12/25/13	
Ethylene Dibromide (EDB)	0.22	0.020	ug/L	0.20		109	70-130			12/25/13	
Surrogate: TCMX	5.0			4.5		112	70-130			12/25/13	

Blank Spike Dup (A315261-BSD1)

Dibromochloropropane (DBCP)	0.21	0.010	ug/L	0.20		107	70-130	2	20	12/25/13	
Ethylene Dibromide (EDB)	0.22	0.020	ug/L	0.20		111	70-130	2	20	12/25/13	
Surrogate: TCMX	5.1			4.5		115	70-130			12/25/13	

Matrix Spike (A315261-MS1), Source: A3L1733-01

Dibromochloropropane (DBCP)	0.80	0.010	ug/L	0.20	0.73	30	65-135			12/25/13	MS1.4 Low
Ethylene Dibromide (EDB)	0.22	0.020	ug/L	0.20	ND	103	65-135			12/25/13	
Surrogate: TCMX	5.3			4.5		117	70-130			12/25/13	

Matrix Spike Dup (A315261-MSD1), Source: A3L1733-01

Dibromochloropropane (DBCP)	0.88	0.010	ug/L	0.20	0.73	70	65-135	9	20	12/25/13	
Ethylene Dibromide (EDB)	0.24	0.020	ug/L	0.20	ND	114	65-135	9	20	12/25/13	
Surrogate: TCMX	5.7			4.5		128	70-130			12/25/13	

EPA 505 - Quality Control

Batch: A315261

Prepared: 12/24/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A315261-BLK1)

Aldrin	ND	0.075	ug/L							12/25/13	
Chlordane	ND	0.10	ug/L							12/25/13	
Chlorothalonil	ND	5.0	ug/L							12/25/13	
Dieldrin	ND	0.020	ug/L							12/25/13	
Endrin	ND	0.10	ug/L							12/25/13	
Heptachlor	ND	0.010	ug/L							12/25/13	
Heptachlor Epoxide	ND	0.010	ug/L							12/25/13	
Hexachlorobenzene	ND	0.50	ug/L							12/25/13	
Hexachlorocyclopentadiene	ND	1.0	ug/L							12/25/13	
Lindane	ND	0.20	ug/L							12/25/13	
Methoxychlor	ND	10	ug/L							12/25/13	
PCB Aroclor Screen	ND	0.50	ug/L							12/25/13	
Toxaphene	ND	1.0	ug/L							12/25/13	
Trifluralin	ND	1.0	ug/L							12/25/13	
Surrogate: TCMX	4.8			4.5		109	70-130			12/25/13	

Blank Spike (A315261-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A315261

Prepared: 12/24/2013

Prep Method: EPA 505

Analyst: GAK

Blank Spike (A315261-BS1)

Aldrin	1.0	0.075	ug/L	1.0		102	70-130			12/25/13	
Chlorothalonil	10	5.0	ug/L	10		105	70-130			12/25/13	
Dieldrin	0.43	0.020	ug/L	0.40		107	70-130			12/25/13	
Endrin	0.22	0.10	ug/L	0.20		108	70-130			12/25/13	
Heptachlor	0.21	0.010	ug/L	0.20		106	70-130			12/25/13	
Heptachlor Epoxide	0.21	0.010	ug/L	0.20		106	70-130			12/25/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0		105	70-130			12/25/13	
Hexachlorocyclopentadiene	2.1	1.0	ug/L	2.0		105	70-130			12/25/13	
Lindane	0.42	0.20	ug/L	0.40		105	70-130			12/25/13	
Methoxychlor	2.3	10	ug/L	2.0		115	70-130			12/25/13	
Trifluralin	2.1	1.0	ug/L	2.0		107	70-130			12/25/13	
Surrogate: TCMX	5.0			4.5		112	70-130			12/25/13	

Blank Spike Dup (A315261-BSD1)

Aldrin	1.1	0.075	ug/L	1.0		110	70-130	8	20	12/25/13	
Chlorothalonil	10	5.0	ug/L	10		102	70-130	2	20	12/25/13	
Dieldrin	0.43	0.020	ug/L	0.40		108	70-130	0	20	12/25/13	
Endrin	0.22	0.10	ug/L	0.20		110	70-130	1	20	12/25/13	
Heptachlor	0.22	0.010	ug/L	0.20		110	70-130	4	20	12/25/13	
Heptachlor Epoxide	0.21	0.010	ug/L	0.20		107	70-130	1	20	12/25/13	
Hexachlorobenzene	2.2	0.50	ug/L	2.0		108	70-130	3	20	12/25/13	
Hexachlorocyclopentadiene	2.2	1.0	ug/L	2.0		109	70-130	4	20	12/25/13	
Lindane	0.44	0.20	ug/L	0.40		109	70-130	4	20	12/25/13	
Methoxychlor	2.3	10	ug/L	2.0		114	70-130	2	20	12/25/13	
Trifluralin	2.2	1.0	ug/L	2.0		110	70-130	3	20	12/25/13	
Surrogate: TCMX	5.1			4.5		115	70-130			12/25/13	

Matrix Spike (A315261-MS1), Source: A3L1733-01

Aldrin	1.1	0.075	ug/L	1.0	ND	108	65-135			12/25/13	
Chlorothalonil	10	5.0	ug/L	10	ND	99	65-135			12/25/13	
Dieldrin	0.39	0.020	ug/L	0.40	ND	96	65-135			12/25/13	
Endrin	0.21	0.10	ug/L	0.20	ND	105	65-135			12/25/13	
Heptachlor	0.22	0.010	ug/L	0.20	ND	108	65-135			12/25/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20	ND	97	65-135			12/25/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0	ND	102	65-135			12/25/13	
Hexachlorocyclopentadiene	2.2	1.0	ug/L	2.0	ND	105	65-135			12/25/13	
Lindane	0.40	0.20	ug/L	0.40	ND	98	65-135			12/25/13	
Methoxychlor	2.2	10	ug/L	2.0	ND	107	65-135			12/25/13	
Trifluralin	2.1	1.0	ug/L	2.0	ND	106	65-135			12/25/13	
Surrogate: TCMX	5.3			4.5		117	70-130			12/25/13	

Matrix Spike Dup (A315261-MSD1), Source: A3L1733-01

Aldrin	1.2	0.075	ug/L	1.0	ND	121	65-135	11	20	12/25/13	
Chlorothalonil	11	5.0	ug/L	10	ND	107	65-135	7	20	12/25/13	
Dieldrin	0.42	0.020	ug/L	0.40	ND	106	65-135	9	20	12/25/13	
Endrin	0.22	0.10	ug/L	0.20	ND	112	65-135	5	20	12/25/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A315261
Prep Method: EPA 505

Prepared: 12/24/2013
Analyst: GAK

Matrix Spike Dup (A315261-MSD1), Source: A3L1733-01

Heptachlor	0.24	0.010	ug/L	0.20	ND	118	65-135	8	20	12/25/13	
Heptachlor Epoxide	0.21	0.010	ug/L	0.20	ND	106	65-135	8	20	12/25/13	
Hexachlorobenzene	2.3	0.50	ug/L	2.0	ND	113	65-135	10	20	12/25/13	
Hexachlorocyclopentadiene	2.4	1.0	ug/L	2.0	ND	117	65-135	11	20	12/25/13	
Lindane	0.44	0.20	ug/L	0.40	ND	109	65-135	10	20	12/25/13	
Methoxychlor	2.3	10	ug/L	2.0	ND	117	65-135	8	20	12/25/13	
Trifluralin	2.3	1.0	ug/L	2.0	ND	112	65-135	5	20	12/25/13	
Surrogate: TCMX	5.7			4.5		128	70-130			12/25/13	

EPA 515.3 - Quality Control

Batch: A315300
Prep Method: EPA 515.3

Prepared: 12/26/2013
Analyst: GAK

Blank (A315300-BLK1)

2,4,5-T	ND	1.0	ug/L							12/28/13	
2,4,5-TP (Silvex)	ND	1.0	ug/L							12/28/13	
2,4-D	ND	10	ug/L							12/28/13	
Bentazon	ND	2.0	ug/L							12/28/13	
Dalapon	ND	10	ug/L							12/28/13	
Dicamba	ND	1.5	ug/L							12/28/13	
Dinoseb	ND	2.0	ug/L							12/28/13	
Pentachlorophenol	ND	0.20	ug/L							12/28/13	
Picloram	ND	1.0	ug/L							12/28/13	
Surrogate: DCPAA	59			58		102	70-130			12/28/13	

Blank Spike (A315300-BS1)

2,4,5-T	4.7	1.0	ug/L	4.0		117	70-130			12/28/13	
2,4,5-TP (Silvex)	0.94	1.0	ug/L	0.80		117	70-130			12/28/13	
2,4-D	0.47	10	ug/L	0.40		117	70-130			12/28/13	
Bentazon	8.7	2.0	ug/L	8.0		109	70-130			12/28/13	
Dalapon	4.2	10	ug/L	4.0		106	70-130			12/28/13	
Dicamba	7.1	1.5	ug/L	6.0		118	70-130			12/28/13	
Dinoseb	0.90	2.0	ug/L	0.80		113	70-130			12/28/13	
Pentachlorophenol	0.19	0.20	ug/L	0.16		116	70-130			12/28/13	
Picloram	0.46	1.0	ug/L	0.40		116	70-130			12/28/13	
Surrogate: DCPAA	59			58		101	70-130			12/28/13	

Blank Spike Dup (A315300-BSD1)

2,4,5-T	4.0	1.0	ug/L	4.0		100	70-130	15	20	12/28/13	
2,4,5-TP (Silvex)	0.80	1.0	ug/L	0.80		100	70-130	16	20	12/28/13	
2,4-D	0.38	10	ug/L	0.40		96	70-130	19	20	12/28/13	
Bentazon	8.1	2.0	ug/L	8.0		102	70-130	7	20	12/28/13	
Dalapon	3.9	10	ug/L	4.0		98	70-130	8	20	12/28/13	
Dicamba	5.9	1.5	ug/L	6.0		98	70-130	18	20	12/28/13	
Dinoseb	0.81	2.0	ug/L	0.80		102	70-130	10	20	12/28/13	
Pentachlorophenol	0.15	0.20	ug/L	0.16		96	70-130	19	20	12/28/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A315300

Prepared: 12/26/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A315300-BSD1)

Picloram	0.40	1.0	ug/L	0.40		100	70-130	15	20	12/28/13	
Surrogate: DCPAA	48			58		83	70-130			12/28/13	

Matrix Spike (A315300-MS1), Source: A3L1370-07

2,4,5-T	4.0	1.0	ug/L	4.0	ND	100	70-130			12/28/13	
2,4,5-TP (Silvex)	0.80	1.0	ug/L	0.80	ND	100	70-130			12/28/13	
2,4-D	0.40	10	ug/L	0.40	ND	99	70-130			12/28/13	
Bentazon	8.1	2.0	ug/L	8.0	ND	102	70-130			12/28/13	
Dalapon	4.2	10	ug/L	4.0	ND	106	70-130			12/28/13	
Dicamba	6.0	1.5	ug/L	6.0	ND	101	70-130			12/28/13	
Dinoseb	0.75	2.0	ug/L	0.80	ND	94	70-130			12/28/13	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	92	70-130			12/28/13	
Picloram	0.42	1.0	ug/L	0.40	ND	106	70-130			12/28/13	
Surrogate: DCPAA	50			58		86	70-130			12/28/13	

EPA 525.2 - Quality Control

Batch: A315174

Prepared: 12/23/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank (A315174-BLK1)

Alachlor	ND	1.0	ug/L							12/23/13	
Atrazine	ND	0.50	ug/L							12/23/13	
Benzo(a)pyrene	ND	0.10	ug/L							12/23/13	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							12/23/13	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							12/23/13	
Bromacil	ND	10	ug/L							12/23/13	
Butachlor	ND	0.38	ug/L							12/23/13	
Diazinon	ND	0.25	ug/L							12/23/13	
Dimethoate	ND	10	ug/L							12/23/13	
Metolachlor	ND	0.50	ug/L							12/23/13	
Metribuzin	ND	0.50	ug/L							12/23/13	
Molinate	ND	2.0	ug/L							12/23/13	
Propachlor	ND	0.50	ug/L							12/23/13	
Simazine	ND	1.0	ug/L							12/23/13	
Thiobencarb	ND	1.0	ug/L							12/23/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.2			5.0		103	70-130			12/23/13	

Blank Spike (A315174-BS1)

Alachlor	0.54	1.0	ug/L	0.50		107	70-130			12/24/13	
Atrazine	0.53	0.50	ug/L	0.50		105	70-130			12/24/13	
Benzo(a)pyrene	0.13	0.10	ug/L	0.10		125	70-130			12/24/13	
Bis(2-ethylhexyl) adipate	3.0	3.0	ug/L	3.0		101	70-130			12/24/13	
Bis(2-ethylhexyl) phthalate	3.3	3.0	ug/L	3.0		108	70-130			12/24/13	
Bromacil	2.6	10	ug/L	2.0		131	70-130			12/24/13	BS High
Butachlor	1.5	0.38	ug/L	1.3		117	70-130			12/24/13	
Diazinon	0.043	0.25	ug/L	0.050		86	70-130			12/24/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A315174

Prepared: 12/23/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A315174-BS1)

Dimethoate	0.63	10	ug/L	0.50		124	70-130			12/24/13	
Metolachlor	3.0	0.50	ug/L	2.5		118	70-130			12/24/13	
Metribuzin	3.0	0.50	ug/L	2.5		117	70-130			12/24/13	
Molinate	2.7	2.0	ug/L	2.5		105	70-130			12/24/13	
Propachlor	2.8	0.50	ug/L	2.5		110	70-130			12/24/13	
Simazine	0.39	1.0	ug/L	0.35		111	70-130			12/24/13	
Thiobencarb	0.55	1.0	ug/L	0.50		110	70-130			12/24/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.8			5.0		96	70-130			12/24/13	

Blank Spike Dup (A315174-BSD1)

Alachlor	0.50	1.0	ug/L	0.50		101	70-130	7	30	12/23/13	
Atrazine	0.53	0.50	ug/L	0.50		106	70-130	0	30	12/23/13	
Benzo(a)pyrene	0.13	0.10	ug/L	0.10		128	70-130	1	30	12/23/13	
Bis(2-ethylhexyl) adipate	3.0	3.0	ug/L	3.0		101	70-130	1	30	12/23/13	
Bis(2-ethylhexyl) phthalate	3.3	3.0	ug/L	3.0		111	70-130	2	30	12/23/13	
Bromacil	2.3	10	ug/L	2.0		115	70-130	14	30	12/23/13	
Butachlor	1.3	0.38	ug/L	1.2		108	70-130	8	30	12/23/13	
Diazinon	0.035	0.25	ug/L	0.050		70	70-130	22	30	12/23/13	
Dimethoate	0.55	10	ug/L	0.50		111	70-130	12	30	12/23/13	
Metolachlor	2.7	0.50	ug/L	2.5		110	70-130	8	30	12/23/13	
Metribuzin	2.9	0.50	ug/L	2.5		114	70-130	4	30	12/23/13	
Molinate	2.7	2.0	ug/L	2.5		107	70-130	1	30	12/23/13	
Propachlor	2.7	0.50	ug/L	2.5		108	70-130	3	30	12/23/13	
Simazine	0.40	1.0	ug/L	0.35		115	70-130	2	30	12/23/13	
Thiobencarb	0.57	1.0	ug/L	0.50		113	70-130	2	30	12/23/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			5.0		100	70-130			12/23/13	

Matrix Spike (A315174-MS1), Source: A3L1502-01

Alachlor	0.53	1.0	ug/L	0.50	ND	106	70-130			12/23/13	
Atrazine	0.56	0.50	ug/L	0.50	ND	113	70-130			12/23/13	
Benzo(a)pyrene	0.12	0.10	ug/L	0.10	ND	122	70-130			12/23/13	
Bis(2-ethylhexyl) adipate	3.0	3.0	ug/L	3.0	ND	101	70-130			12/23/13	
Bis(2-ethylhexyl) phthalate	3.1	3.0	ug/L	3.0	ND	104	70-130			12/23/13	
Bromacil	2.5	10	ug/L	2.0	ND	125	70-130			12/23/13	
Butachlor	1.4	0.38	ug/L	1.2	ND	111	70-130			12/23/13	
Diazinon	0.047	0.25	ug/L	0.050	ND	94	70-130			12/23/13	
Dimethoate	0.60	10	ug/L	0.50	ND	121	70-130			12/23/13	
Metolachlor	2.8	0.50	ug/L	2.5	ND	112	70-130			12/23/13	
Metribuzin	2.9	0.50	ug/L	2.5	ND	117	70-130			12/23/13	
Molinate	2.7	2.0	ug/L	2.5	ND	109	70-130			12/23/13	
Propachlor	2.7	0.50	ug/L	2.5	ND	108	70-130			12/23/13	
Simazine	0.40	1.0	ug/L	0.35	ND	115	70-130			12/23/13	
Thiobencarb	0.54	1.0	ug/L	0.50	ND	108	70-130			12/23/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			5.0		100	70-130			12/23/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A315323

Prepared: 12/26/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A315323-BLK1)

3-Hydroxycarbofuran	ND	3.0	ug/L							12/27/13	
Aldicarb	ND	3.0	ug/L							12/27/13	
Aldicarb Sulfone	ND	2.0	ug/L							12/27/13	
Aldicarb Sulfoxide	ND	3.0	ug/L							12/27/13	
Carbaryl	ND	5.0	ug/L							12/27/13	
Carbofuran	ND	5.0	ug/L							12/27/13	
Methomyl	ND	2.0	ug/L							12/27/13	
Oxamyl	ND	20	ug/L							12/27/13	

Blank Spike (A315323-BS1)

3-Hydroxycarbofuran	4.6	3.0	ug/L	4.2		110	80-120			12/27/13	
Aldicarb	4.5	3.0	ug/L	4.2		108	80-120			12/27/13	
Aldicarb Sulfone	4.6	2.0	ug/L	4.2		109	80-120			12/27/13	
Aldicarb Sulfoxide	4.6	3.0	ug/L	4.2		111	80-120			12/27/13	
Carbaryl	4.4	5.0	ug/L	4.2		105	80-120			12/27/13	
Carbofuran	4.7	5.0	ug/L	4.2		113	80-120			12/27/13	
Methomyl	4.5	2.0	ug/L	4.2		109	80-120			12/27/13	
Oxamyl	4.6	20	ug/L	4.2		111	80-120			12/27/13	

Blank Spike Dup (A315323-BSD1)

3-Hydroxycarbofuran	4.4	3.0	ug/L	4.2		105	80-120	4	20	12/27/13	
Aldicarb	4.5	3.0	ug/L	4.2		107	80-120	1	20	12/27/13	
Aldicarb Sulfone	4.3	2.0	ug/L	4.2		103	80-120	6	20	12/27/13	
Aldicarb Sulfoxide	4.4	3.0	ug/L	4.2		104	80-120	6	20	12/27/13	
Carbaryl	4.3	5.0	ug/L	4.2		104	80-120	2	20	12/27/13	
Carbofuran	4.5	5.0	ug/L	4.2		107	80-120	6	20	12/27/13	
Methomyl	4.3	2.0	ug/L	4.2		103	80-120	5	20	12/27/13	
Oxamyl	4.4	20	ug/L	4.2		105	80-120	5	20	12/27/13	

Matrix Spike (A315323-MS1), Source: A3L1441-01

3-Hydroxycarbofuran	5.7	3.0	ug/L	4.2	ND	137	65-135			12/27/13	MS1.0 High
Aldicarb	5.6	3.0	ug/L	4.2	ND	135	65-135			12/27/13	
Aldicarb Sulfone	5.7	2.0	ug/L	4.2	ND	136	65-135			12/27/13	MS1.0 High
Aldicarb Sulfoxide	5.8	3.0	ug/L	4.2	ND	139	65-135			12/27/13	MS1.0 High
Carbaryl	5.6	5.0	ug/L	4.2	ND	134	65-135			12/27/13	
Carbofuran	5.9	5.0	ug/L	4.2	ND	142	65-135			12/27/13	MS1.0 High
Methomyl	5.7	2.0	ug/L	4.2	ND	137	65-135			12/27/13	MS1.0 High
Oxamyl	5.8	20	ug/L	4.2	ND	140	65-135			12/27/13	MS1.0 High

EPA 547 - Quality Control

Batch: A315140

Prepared: 12/21/2013

Prep Method: EPA 547

Analyst: RJB

Blank (A315140-BLK1)

Glyphosate	ND	25	ug/L							12/21/13	
Surrogate: AMPA	100			100		101	70-130			12/21/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 547 - Quality Control

Batch: A315140

Prepared: 12/21/2013

Prep Method: EPA 547

Analyst: RJB

Blank Spike (A315140-BS1)

Glyphosate	95	25	ug/L	100		94	70-130			12/21/13	
Surrogate: AMPA	110			100		107	70-130			12/21/13	

Blank Spike Dup (A315140-BSD1)

Glyphosate	100	25	ug/L	100		100	70-130	7	30	12/21/13	
Surrogate: AMPA	110			100		106	70-130			12/21/13	

Matrix Spike (A315140-MS1), Source: A3L1380-01

Glyphosate	110	25	ug/L	100	ND	106	70-130			12/21/13	
Surrogate: AMPA	110			100		108	70-130			12/21/13	

Matrix Spike Dup (A315140-MSD1), Source: A3L1380-01

Glyphosate	96	25	ug/L	100	ND	96	70-130	9	30	12/21/13	
Surrogate: AMPA	100			100		105	70-130			12/21/13	

EPA 548.1 - Quality Control

Batch: A315322

Prepared: 12/26/2013

Prep Method: EPA 548.1

Analyst: KHH

Blank (A315322-BLK1)

Endothall	ND	45	ug/L							12/27/13	
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Blank Spike (A315322-BS1)

Endothall	17	45	ug/L	20		85	60-111			12/27/13	
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Blank Spike Dup (A315322-BSD1)

Endothall	17	45	ug/L	20		86	60-111	1	46	12/27/13	
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Matrix Spike (A315322-MS1), Source: A3L1635-01

Endothall	ND	45	ug/L	20	ND	0	10-122			12/27/13	MS1.0 Low
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EPA 549.2 - Quality Control

Batch: A315144

Prepared: 12/21/2013

Prep Method: EPA 549.2

Analyst: PYA

Blank (A315144-BLK1)

Diquat	ND	4.0	ug/L							12/26/13	
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Blank Spike (A315144-BS1)

Diquat	3.6	4.0	ug/L	4.0		90	70-130			12/26/13	
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Blank Spike Dup (A315144-BSD1)

Diquat	3.7	4.0	ug/L	4.0		93	70-130	4	30	12/26/13	
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Matrix Spike (A315144-MS1), Source: A3L1441-01

Diquat	3.6	4.0	ug/L	4.0	ND	91	70-130			12/26/13	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 549.2 - Quality Control

Batch: A315144

Prepared: 12/21/2013

Prep Method: EPA 549.2

Analyst: PYA

Matrix Spike (A315144-MS2), Source: A3L1451-01

Diquat	3.7	4.0	ug/L	4.0	ND	92	70-130			12/26/13	
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Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of California - ELAP	1180	State of Nevada	CA000792013-1
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA
State of California - NELAP	04227CA	State of Oregon	4017
State of Washington	C997	State of Oregon - NWTTPH	4021

BSK is not accredited under the NELAC program for the following parameters:

Boron	Silica (SiO2)	Strontium
Threshold Odor		

A3L1716



California American Water

Calif3295



12202013

Turnaround: Standard

Due Date: 1/6/2014



Temp. 0.7

Required Fields

Company/Client Name: California American Water
 Report Attention: Travis Peterson
 Additional cc's: Sarp Sekeroglu, RBF Consulting
 Invoice To: Accounts Payable
 PO#:
 Phone: (831) 646-3295/(831) 646-3269 Fax: (831) 333-1343
 E-mail: susan.jacobson@amwater.com, travis.peterson@amwater.com

Address: PO Box 951 City: Monterey State: CA Zip: 93942-0951
 Project: Water Quality Analysis - MPWSP
 Reporting Options: Trace (J-Flag) Swamp EOD Type
 How would you like your completed results sent? E-Mail Fax Mail
 Sampler Name (Printed/Signature): Nathan Reynolds / *Nathan Reynolds*
 TAT: Standard - 10 Business Days **Rush: Date Needed
 Regulatory Carbon Copies: CDPH Fresno Co Merced Co Tulare Co Madera Co Other
 Regulatory Compliance: EDT to California DPH System Number: Geotracker #:

#	Sample Description*	Sampled*		Matrix*	Comments / Station Code / WTRAX	Alkalinity, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC	Mass Balance-Dissolved: Cations and Anions	Dissolved Metals: Ba, B, Ca, Fe, Mg, Mn, K, Na, Sr, silica	Total Metals: Al, As, Cu, Fe, Mn, Zn	Dissolved: Bromide, Chloride, Nitrite, Fluoride, Sulfate, Orthophosphate-P	Dissolved: Ammonia, TKN, Phosphorus	Nitrate+Nitrite as N, Nitrate-NO3	EPA 524, 504, 505, 515, 525, 531, 547, 548, 549	EXT-Tritium, EXT-Lithium, EXT-Dissolved Iodide, EXT-Dioxin
		Date	Time											
27	ML-2 Zone # 2 (90-100 ft bgs)	12-19-13	10:45	water	Seawater salinity levels. Lab to filter dissolved metals. Lab to filter Diss. Ammonia, TKN, P	X	X	X	X	X	X	X	X	X

Field Parameters: Temp = 16.4 °C
 pH = 6.67
 Sp Cond = 11,508 µS/cm
 Turb = 0.72 NTU

Relinquished by (Signature and Printed Name): *Nathan Reynolds* Nathan Reynolds Company: GEOSCIENCE Date: 12-19-13 Time: 1:55 PM
 Received by (Signature and Printed Name): *Shelly Segg* Shelly Segg Company: RBF
 Relinquished by (Signature and Printed Name): *Shelly Segg* Shelly Segg Company: RBF Date: 12-19-13 Time: 1:55 PM
 Received for Lab by (Signature and Printed Name): *Sarp Sekeroglu* Date: 12/24/13 Time: 15:00
 Payment Received at Delivery: Check Cash Amount: PIA# Inl.
 Shipping Method: GSO UPS WALK-IN FED EX Courier
 Cooling Method: Wet Blue None
 Custody Seal: Y/N Chilling Process: Y/N

Payment for services rendered as noted herein is due in full within 30 days from the date invoiced. If not as paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsCond/wm.pdf



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$		Yes	No	NA	Were correct containers and preservatives received for the tests requested?		Yes	No	NA
		If samples were taken today, is there evidence that chilling has begun?		Yes	No	NA	Were there bubbles in the VOA vials? (Volatiles Only)		Yes	No
	Did all bottles arrive unbroken and intact?		Yes	No		Was a sufficient amount of sample received?		Yes	No	
	Did all bottle labels agree with COC?		Yes	No		Do samples have a hold time <72 hours?		Yes	No	
	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?		Yes	No	NA	Was PM notified of discrepancies? PM: _____ By/Time: _____		Yes	No	NA
Bottles Received <small>"I" means preservation/chlorine checks are either N/A or are performed in the lab</small>	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?							
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—							
	None (P) <small>White Cap</small>	—	—			2G, B, 1A				
	Cr6 Buffer (P) <small>Blue Cap</small>	pH 9-9.5	Y	N						
	HNO_3 (P) <small>Red Cap</small>	—	—			2B				
	H_2SO_4 (P) <small>Yellow Cap</small>	pH ≤ 2	Y	N		1A				
	NaOH (P) <small>Green Cap</small>	Cl, pH ≥ 12	Y	N						
	NaOH + ZnAc (P)	pH ≥ 9	Y	N						
	Dissolved Oxygen 300ml (g)	—	—							
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—			2G, 1A, 1B				
	H_2SO_4 (AG) <small>Yellow Label</small> O&G, Diesel	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—			1C				
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) <small>Blue Label</small> 547, 515, 525, 548	—	—			2G, 2A				
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) <small>Blue Label</small> THMs 524.2 or 524.3	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) <small>Blue Label</small> 504, 505	—	—			7V				
	$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) <small>Orange Label</small> 531	pH = 3	Y	N		7V				
	NH_4Cl (AG) <small>Purple Label</small> 552	—	—							
	EDA (AG) <small>Brown Label</small> DBPs	—	—							
	Ascorbic + Maleic (AG) <small>Lt Green Label</small> 524.3	—	—							
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—			3U				
Buffer pH 4 (CG)	—	—								
None (CG)	—	—								
H_3PO_4 (CG) <small>Salmon Label</small>	—	—								
Other:										
Asbestos 1Liter Plastic w/ Foil	—	—								
Low Level Hg / Metals Double Baggie	—	—								
Bottled Water	—	—								
Clear Glass Jar: 250 / 500 / 1 Liter	—	—								
Soil Tube Brass / Steel / Plastic	—	—								
Tedlar Bag / Plastic Bag	—	—								
Split	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials			
	S P				S P					
Comments	OUT OF HT.									

External



A3L1716





Certificate of Analysis

Report Date: 01/02/14 13:21
Received Date: 12/31/13 10:45
Turnaround Time: Normal

Project: A3L1716

Phones: (559) 497-2888

Fax: (559) 485-6935

P.O. #:

Attn: Michael Ng

Client: BSK Analytical Laboratories
 550 West Locust Avenue
 Fresno, CA 93650

Dear Michael Ng :

Enclosed are the results of analyses for samples received 12/31/2013 with the Chain of Custody document. The samples were received in good condition, at 4.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab Sample ID: 3L31022-01	Sample ID: A3L1716-01	Matrix: Water								
Sampled by: Client	Sampled: 12/19/13 10:45									
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
1,1,1,2-Tetrachloroethane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,1,1-Trichloroethane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,1,2-Tetrachloroethane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,1,2-Trichloroethane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,1-Dichloroethane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,1-Dichloroethene	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,1-Dichloropropene	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,2,3-Trichlorobenzene	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,2,3-Trichloropropane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,2,4-Trichlorobenzene	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,2,4-Trimethylbenzene	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,2-Dichloroethane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,2-Dichloropropane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,3,5-Trimethylbenzene	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,3-Dichloropropane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
1,3-Dichloropropene, Total	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
2,2-Dichloropropane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
2-Butanone	ND		5.0	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
2-Chloroethyl vinyl ether	ND		1.0	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
2-Chlorotoluene	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
2-Hexanone	ND		5.0	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
4-Chlorotoluene	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
4-Methyl-2-pentanone	ND		5.0	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
Benzene	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
Bromobenzene	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
Bromochloromethane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	
Bromodichloromethane	ND		0.50	ug/l	1	EPA 524.2	12/31/13	12/31/13 14:48	W3L1469	

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Certificate of Analysis

Lab Sample ID: 3L31022-01
Sampled by: Client

Sample ID: A3L1716-01
Sampled: 12/19/13 10:45

Matrix: Water

Table with columns: Analyte, Result, MDL, MRL, Units, Dil, Method, Prepared, Analyzed, Batch, Qualifier. Lists various chemical analytes such as Bromoform, Chlorobenzene, and Xylenes with their respective results and detection limits.



Certificate of Analysis

Quality Control Section

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W3L1469 - EPA 524.2

Analyte	Sample Result	QC Result	Qualifier	Units	Prepared: 12/31/13		Analyzed: 12/31/13 14:17		
					Spike Level	%REC	%REC Limits	RPD	RPD Limit
Surrogate: 1,2-Dichlorobenzene-d4		10.1		ug/l	10.0	101	70-130		
Surrogate: 4-Bromofluorobenzene		10.4		ug/l	10.0	104	70-130		
Dichlorodifluoromethane (Freon 12)		ND		ug/l					
Chloromethane		ND		ug/l					
Vinyl chloride		ND		ug/l					
Bromomethane		ND		ug/l					
Chloroethane		ND		ug/l					
Trichlorofluoromethane		ND		ug/l					
Freon 113		ND		ug/l					
1,1-Dichloroethene		ND		ug/l					
Methylene chloride		ND		ug/l					
trans-1,2-Dichloroethene		ND		ug/l					
Methyl tert-butyl ether (MTBE)		ND		ug/l					
1,1-Dichloroethane		ND		ug/l					
Di-isopropyl ether		ND		ug/l					
Ethyl tert-butyl ether		ND		ug/l					
2-Butanone		ND		ug/l					
2,2-Dichloropropane		ND		ug/l					
cis-1,2-Dichloroethene		ND		ug/l					
Bromochloromethane		ND		ug/l					
Chloroform		ND		ug/l					
1,1,1-Trichloroethane		ND		ug/l					
Carbon tetrachloride		ND		ug/l					
1,1-Dichloropropene		ND		ug/l					
Benzene		ND		ug/l					
1,2-Dichloroethane		ND		ug/l					
Tert-amyl methyl ether		ND		ug/l					
Trichloroethene		ND		ug/l					
1,2-Dichloropropane		ND		ug/l					
Dibromomethane		ND		ug/l					
Bromodichloromethane		ND		ug/l					
cis-1,3-Dichloropropene		ND		ug/l					
4-Methyl-2-pentanone		ND		ug/l					
2-Chloroethyl vinyl ether		ND		ug/l					
Toluene		ND		ug/l					
trans-1,3-Dichloropropene		ND		ug/l					
1,1,2-Trichloroethane		ND		ug/l					
Tetrachloroethene		ND		ug/l					
1,3-Dichloropropane		ND		ug/l					
Dibromochloromethane		ND		ug/l					
2-Hexanone		ND		ug/l					



Certificate of Analysis

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W3L1469 - EPA 524.2

Blank (W3L1469-BLK1)				Prepared: 12/31/13		Analyzed: 12/31/13 14:17			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Chlorobenzene		ND		ug/l					
1,1,1,2-Tetrachloroethane		ND		ug/l					
Ethylbenzene		ND		ug/l					
m,p-Xylene		ND		ug/l					
o-Xylene		ND		ug/l					
Styrene		ND		ug/l					
Bromoform		ND		ug/l					
Isopropylbenzene		ND		ug/l					
Bromobenzene		ND		ug/l					
1,1,2,2-Tetrachloroethane		ND		ug/l					
1,2,3-Trichloropropane		ND		ug/l					
n-Propylbenzene		ND		ug/l					
2-Chlorotoluene		ND		ug/l					
4-Chlorotoluene		ND		ug/l					
1,3,5-Trimethylbenzene		ND		ug/l					
tert-Butylbenzene		ND		ug/l					
1,2,4-Trimethylbenzene		ND		ug/l					
sec-Butylbenzene		ND		ug/l					
m-Dichlorobenzene		ND		ug/l					
p-Isopropyltoluene		ND		ug/l					
p-Dichlorobenzene		ND		ug/l					
o-Dichlorobenzene		ND		ug/l					
n-Butylbenzene		ND		ug/l					
1,2,4-Trichlorobenzene		ND		ug/l					
Hexachlorobutadiene		ND		ug/l					
Naphthalene		ND		ug/l					
1,2,3-Trichlorobenzene		ND		ug/l					
Xylenes, Total		ND		ug/l					
1,3-Dichloropropene, Total		ND		ug/l					
THMs, Total		ND		ug/l					

LCS (W3L1469-BS1)				Prepared: 12/31/13		Analyzed: 12/31/13 12:11			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Surrogate: 1,2-Dichlorobenzene-d4		13.6	S-BS	ug/l	10.0	136	70-130		
Surrogate: 4-Bromofluorobenzene		12.9		ug/l	10.0	129	70-130		
Dichlorodifluoromethane (Freon 12)		6.06		ug/l	6.00	101	70-130		
Chloromethane		5.80		ug/l	6.00	97	70-130		
Vinyl chloride		5.85		ug/l	6.00	98	70-130		
Bromomethane		4.97		ug/l	6.00	83	70-130		
Chloroethane		5.29		ug/l	6.00	88	70-130		
Trichlorofluoromethane		3.98	BS-03	ug/l	6.00	66	70-130		
Freon 113		6.14		ug/l	6.00	102	70-130		
1,1-Dichloroethene		6.12		ug/l	6.00	102	70-130		
Methylene chloride		5.55		ug/l	6.00	92	70-130		



Certificate of Analysis

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W3L1469 - EPA 524.2

Analyte	Sample Result	QC Result	Qualifier	Units	Prepared: 12/31/13		Analyzed: 12/31/13 12:11		RPD Limit
					Spike Level	%REC	%REC Limits	RPD	
trans-1,2-Dichloroethene	5.93			ug/l	6.00	99	70-130		
Methyl tert-butyl ether (MTBE)	6.77			ug/l	6.00	113	70-130		
1,1-Dichloroethane	6.06			ug/l	6.00	101	70-130		
Di-isopropyl ether	6.55			ug/l	6.00	109	70-130		
Ethyl tert-butyl ether	6.50			ug/l	6.00	108	70-130		
2-Butanone	6.41			ug/l	6.00	107	70-130		
2,2-Dichloropropane	7.05			ug/l	6.00	118	70-130		
cis-1,2-Dichloroethene	6.84			ug/l	6.00	114	70-130		
Bromochloromethane	5.94			ug/l	6.00	99	70-130		
Chloroform	5.71			ug/l	6.00	95	70-130		
1,1,1-Trichloroethane	5.73			ug/l	6.00	96	70-130		
Carbon tetrachloride	5.65			ug/l	6.00	94	70-130		
1,1-Dichloropropene	6.33			ug/l	6.00	106	70-130		
Benzene	6.16			ug/l	6.00	103	70-130		
1,2-Dichloroethane	5.77			ug/l	6.00	96	70-130		
Tert-amyl methyl ether	7.06			ug/l	6.00	118	70-130		
Trichloroethene	5.90			ug/l	6.00	98	70-130		
1,2-Dichloropropane	6.06			ug/l	6.00	101	70-130		
Dibromomethane	6.11			ug/l	6.00	102	70-130		
Bromodichloromethane	5.69			ug/l	6.00	95	70-130		
cis-1,3-Dichloropropene	6.77			ug/l	6.00	113	70-130		
4-Methyl-2-pentanone	5.12			ug/l	6.00	85	70-130		
2-Chloroethyl vinyl ether	5.93			ug/l	6.00	99	70-130		
Toluene	7.37			ug/l	6.00	123	70-130		
trans-1,3-Dichloropropene	7.03			ug/l	6.00	117	70-130		
1,1,2-Trichloroethane	6.04			ug/l	6.00	101	70-130		
Tetrachloroethene	6.34			ug/l	6.00	106	70-130		
1,3-Dichloropropane	6.21			ug/l	6.00	104	70-130		
Dibromochloromethane	6.03			ug/l	6.00	100	70-130		
2-Hexanone	5.12			ug/l	6.00	85	70-130		
Chlorobenzene	6.71			ug/l	6.00	112	70-130		
1,1,1,2-Tetrachloroethane	5.77			ug/l	6.00	96	70-130		
Ethylbenzene	6.44			ug/l	6.00	107	70-130		
m,p-Xylene	5.22			ug/l	6.00	87	70-130		
o-Xylene	5.19			ug/l	6.00	86	70-130		
Styrene	6.34			ug/l	6.00	106	70-130		
Bromoform	6.67			ug/l	6.00	111	70-130		
Isopropylbenzene	5.33			ug/l	6.00	89	70-130		
Bromobenzene	6.08			ug/l	6.00	101	70-130		
1,1,2,2-Tetrachloroethane	5.96			ug/l	6.00	99	70-130		
1,2,3-Trichloropropane	6.03			ug/l	6.00	100	70-130		
n-Propylbenzene	6.40			ug/l	6.00	107	70-130		
2-Chlorotoluene	7.27			ug/l	6.00	121	70-130		
4-Chlorotoluene	6.73			ug/l	6.00	112	70-130		

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Certificate of Analysis

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W3L1469 - EPA 524.2

LCS (W3L1469-BS1)				Prepared: 12/31/13		Analyzed: 12/31/13 12:11			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene		7.84	Q-08	ug/l	6.00	131	70-130		
tert-Butylbenzene		5.11		ug/l	6.00	85	70-130		
1,2,4-Trimethylbenzene		6.54		ug/l	6.00	109	70-130		
sec-Butylbenzene		7.34		ug/l	6.00	122	70-130		
m-Dichlorobenzene		6.26		ug/l	6.00	104	70-130		
p-Isopropyltoluene		5.27		ug/l	6.00	88	70-130		
p-Dichlorobenzene		6.30		ug/l	6.00	105	70-130		
o-Dichlorobenzene		5.93		ug/l	6.00	99	70-130		
n-Butylbenzene		6.70		ug/l	6.00	112	70-130		
1,2,4-Trichlorobenzene		6.57		ug/l	6.00	110	70-130		
Hexachlorobutadiene		6.97		ug/l	6.00	116	70-130		
Naphthalene		6.01		ug/l	6.00	100	70-130		
1,2,3-Trichlorobenzene		6.85		ug/l	6.00	114	70-130		

LCS Dup (W3L1469-BSD1)				Prepared: 12/31/13		Analyzed: 12/31/13 13:14			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Surrogate: 1,2-Dichlorobenzene-d4		13.4	S S S	ug/l	10.0	134	70-130		
Surrogate: 4-Bromofluorobenzene		12.8		ug/l	10.0	128	70-130		
Dichlorodifluoromethane (Freon 12)		5.94		ug/l	6.00	99	70-130	2	30
Chloromethane		5.69		ug/l	6.00	95	70-130	2	30
Vinyl chloride		5.70		ug/l	6.00	95	70-130	3	30
Bromomethane		4.88		ug/l	6.00	81	70-130	2	30
Chloroethane		5.41		ug/l	6.00	90	70-130	2	30
Trichlorofluoromethane		4.71		ug/l	6.00	78	70-130	17	30
Freon 113		5.94		ug/l	6.00	99	70-130	3	30
1,1-Dichloroethene		6.07		ug/l	6.00	101	70-130	0.8	30
Methylene chloride		6.07		ug/l	6.00	101	70-130	9	30
trans-1,2-Dichloroethene		6.24		ug/l	6.00	104	70-130	5	30
Methyl tert-butyl ether (MTBE)		6.38		ug/l	6.00	106	70-130	6	30
1,1-Dichloroethane		5.94		ug/l	6.00	99	70-130	2	30
Di-isopropyl ether		6.20		ug/l	6.00	103	70-130	5	30
Ethyl tert-butyl ether		6.60		ug/l	6.00	110	70-130	2	30
2-Butanone		6.24		ug/l	6.00	104	70-130	3	30
2,2-Dichloropropane		6.35		ug/l	6.00	106	70-130	10	30
cis-1,2-Dichloroethene		4.75	QR-BS	ug/l	6.00	79	70-130	36	30
Bromochloromethane		5.72		ug/l	6.00	95	70-130	4	30
Chloroform		5.55		ug/l	6.00	92	70-130	3	30
1,1,1-Trichloroethane		5.70		ug/l	6.00	95	70-130	0.5	30
Carbon tetrachloride		5.77		ug/l	6.00	96	70-130	2	30
1,1-Dichloropropene		6.28		ug/l	6.00	105	70-130	0.8	30
Benzene		6.16		ug/l	6.00	103	70-130	0	30
1,2-Dichloroethane		5.81		ug/l	6.00	97	70-130	0.7	30
Tert-amyl methyl ether		7.20		ug/l	6.00	120	70-130	2	30
Trichloroethene		6.00		ug/l	6.00	100	70-130	2	30



Certificate of Analysis

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W3L1469 - EPA 524.2

LCS Dup (W3L1469-BSD1)

Prepared: 12/31/13 Analyzed: 12/31/13 13:14

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
1,2-Dichloropropane	6.03			ug/l	6.00	100	70-130	0.5	30
Dibromomethane	5.95			ug/l	6.00	99	70-130	3	30
Bromodichloromethane	5.79			ug/l	6.00	96	70-130	2	30
cis-1,3-Dichloropropene	6.81			ug/l	6.00	114	70-130	0.6	30
4-Methyl-2-pentanone	5.22			ug/l	6.00	87	70-130	2	30
2-Chloroethyl vinyl ether	5.94			ug/l	6.00	99	70-130	0.2	30
Toluene	7.50			ug/l	6.00	125	70-130	2	30
trans-1,3-Dichloropropene	6.89			ug/l	6.00	115	70-130	2	30
1,1,2-Trichloroethane	6.05			ug/l	6.00	101	70-130	0.2	30
Tetrachloroethene	6.20			ug/l	6.00	103	70-130	2	30
1,3-Dichloropropane	6.16			ug/l	6.00	103	70-130	0.8	30
Dibromochloromethane	6.00			ug/l	6.00	100	70-130	0.5	30
2-Hexanone	5.22			ug/l	6.00	87	70-130	2	30
Chlorobenzene	6.83			ug/l	6.00	114	70-130	2	30
1,1,1,2-Tetrachloroethane	5.79			ug/l	6.00	96	70-130	0.3	30
Ethylbenzene	6.53			ug/l	6.00	109	70-130	1	30
m,p-Xylene	5.30			ug/l	6.00	88	70-130	2	30
o-Xylene	5.23			ug/l	6.00	87	70-130	0.8	30
Styrene	6.50			ug/l	6.00	108	70-130	2	30
Bromoform	6.64			ug/l	6.00	111	70-130	0.5	30
Isopropylbenzene	5.48			ug/l	6.00	91	70-130	3	30
Bromobenzene	5.97			ug/l	6.00	100	70-130	2	30
1,1,2,2-Tetrachloroethane	5.88			ug/l	6.00	98	70-130	1	30
1,2,3-Trichloropropane	6.09			ug/l	6.00	102	70-130	1	30
n-Propylbenzene	6.46			ug/l	6.00	108	70-130	0.9	30
2-Chlorotoluene	7.39			ug/l	6.00	123	70-130	2	30
4-Chlorotoluene	6.84			ug/l	6.00	114	70-130	2	30
1,3,5-Trimethylbenzene	7.93		09	ug/l	6.00	132	70-130	1	30
tert-Butylbenzene	5.20			ug/l	6.00	87	70-130	2	30
1,2,4-Trimethylbenzene	6.53			ug/l	6.00	109	70-130	0.2	30
sec-Butylbenzene	7.23			ug/l	6.00	120	70-130	2	30
m-Dichlorobenzene	6.27			ug/l	6.00	104	70-130	0.2	30
p-Isopropyltoluene	5.38			ug/l	6.00	90	70-130	2	30
p-Dichlorobenzene	6.13			ug/l	6.00	102	70-130	3	30
o-Dichlorobenzene	5.76			ug/l	6.00	96	70-130	3	30
n-Butylbenzene	6.91			ug/l	6.00	115	70-130	3	30
1,2,4-Trichlorobenzene	6.81			ug/l	6.00	114	70-130	4	30
Hexachlorobutadiene	7.26			ug/l	6.00	121	70-130	4	30
Naphthalene	6.29			ug/l	6.00	105	70-130	5	30
1,2,3-Trichlorobenzene	6.87			ug/l	6.00	114	70-130	0.3	30



Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Kim G Tu (Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

- BS-03 The recovery of this analyte in the BS/LCS was outside the control limits. The sample result was accepted based on another acceptable BS/LCS and/or MS and MSD that meet BS criteria.
- Q-08 High bias in the QC sample does not affect sample result since analyte was not detected or below the reporting limit.
- QR-BS The RPD value for the BS/BSD (LCS/LCSD) was outside of QC acceptance limits however both recoveries were acceptable. The QC batch was accepted based on acceptable results for the recoveries of the BS (LCS) and BSD (LCSD).
- S-BS Surrogate recovery outside of control limits for LCS. The data was accepted based on valid recovery of the target analytes.
- ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
- Sub Subcontracted analysis, original report enclosed.
- DL Method Detection Limit
- RL Method Reporting Limit
- MDA Minimum Detectable Activity
- NR Not Reportable



SUBCONTRACT ORDER
A3L1716

3L31022

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E Clark Avenue
City of Industry, CA 91745-1396
Phone : (626) 336-2139
Fax: (626) 336-2634
Turnaround (Days): Standard
QC Deliverables: I Std III IV


Sample ID	Samp Desc	Sample Date
A3L1716-01	ML-2 Zone #2 (90-100 ftbgs)	12/19/2013 10:45

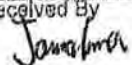
Matrix: Water

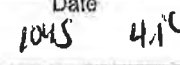
Analysis

EPA 524.2 - Subtest
~~EXT-Iodide~~
~~EXT-Miscellaneous~~
Total 1,3-Dichloropropene
Total Trihalomethanes
Total Xylenes, EPA 524.2

~~Shipped 12/23/13 Dissolved~~
~~Shipped 12/23/13 Lithium~~

Released By  Date 12/30/13

Received By  Date 12/31/13

Received By  Date 12/19/13



Certificate of Analysis

Report Date: 01/07/14 13:48
Received Date: 12/24/13 08:35
Turnaround Time: Normal

Project: A3L1716

Phones: (559) 497-2888
Fax: (559) 485-6935

P.O. #:

Attn: Michael Ng

Client: BSK Analytical Laboratories
550 West Locust Avenue
Fresno, CA 93650

Dear Michael Ng :

Enclosed are the results of analyses for samples received 12/24/2013 with the Chain of Custody document. The samples were received in good condition, at 3.2 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab Sample ID: 3L24019-01	Sample ID: A3L1716-01		Matrix: Water							
Sampled by: Client	Sampled: 12/19/13 10:45									
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Lithium, Total	78		10	ug/l	1	EPA 200.7	12/26/13	12/27/13 15:43	W3L1292	
Iodide, Dissolved	360		250	ug/l	25	EPA 9056A	1/2/14	1/2/14 19:27	W4A0050	



Certificate of Analysis
Quality Control Section

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

Batch W4A0050 - EPA 9056A

Blank (W4A0050-BLK1)					Prepared: 01/02/14	Analyzed: 01/02/14 19:27						
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit			
Iodide, Dissolved		ND		ug/l								
LCS (W4A0050-BS1)					Prepared: 01/02/14	Analyzed: 01/02/14 19:27						
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit			
Iodide, Dissolved		40.4		ug/l	40.0	101	85-115					
Duplicate (W4A0050-DUP1)					Source: 3L24019-01					Prepared: 01/02/14	Analyzed: 01/02/14 19:27	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit			
Iodide, Dissolved	362	318		ug/l				13	20			
Matrix Spike (W4A0050-MS1)					Source: 3L24020-01					Prepared: 01/02/14	Analyzed: 01/02/14 19:27	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit			
Iodide, Dissolved	920	2640		ug/l	2000	86	80-120					
Matrix Spike Dup (W4A0050-MSD1)					Source: 3L24020-01					Prepared: 01/02/14	Analyzed: 01/02/14 19:27	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit			
Iodide, Dissolved	920	2820		ug/l	2000	95	80-120	6	20			

Metals by EPA 200 Series Methods - Quality Control

Batch W3L1292 - EPA 200.7

Blank (W3L1292-BLK1)					Prepared: 12/26/13	Analyzed: 12/27/13 15:32						
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit			
Lithium, Total		ND		ug/l								
LCS (W3L1292-BS1)					Prepared: 12/26/13	Analyzed: 12/27/13 15:40						
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit			
Lithium, Total		947		ug/l	1000	95	85-115					
Matrix Spike (W3L1292-MS1)					Source: 3L26025-01					Prepared: 12/26/13	Analyzed: 12/27/13 15:55	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit			
Lithium, Total	2.09	934		ug/l	1000	93	70-130					
Matrix Spike Dup (W3L1292-MSD1)					Source: 3L26025-01					Prepared: 12/26/13	Analyzed: 12/27/13 15:58	
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit			
Lithium, Total	2.09	943		ug/l	1000	94	70-130	0.9	30			



Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services. The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Kim G Tu (Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

- ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
- Sub Subcontracted analysis, original report enclosed.
- DL Method Detection Limit
- RL Method Reporting Limit
- MDA Minimum Detectable Activity
- NR Not Reportable




January 13, 2014

Mr. Michael Ng
BSK Analytical Laboratories
1414 Stanislaus St.
Fresno, CA 93706

RE: Project: A3L1716
Pace Project No.: 30110776

Dear Mr. Ng:
Enclosed are the analytical results for sample(s) received by the laboratory on January 03, 2014.
The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,


Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: A3L1716
Pace Project No.: 30110776

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
ACCLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana/TNI Certification #: LA080002
Louisiana/TNI Certification #: 4086
Maine Certification #: PA0091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification

Missouri Certification #: 235
Montana Certification #: Cert 0082
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: ANTE
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia Certification #: 143
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

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SAMPLE SUMMARY

Project: A3L1716
Pace Project No.: 30110776

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30110776001	A3L1716-01	Water	12/19/13 10:45	01/03/14 10:05

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: A3L1716
Pace Project No.: 30110776

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30110776001	A3L1716-01	EPA 906.0	SLA	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: A3L1716
Pace Project No.: 30110776

Method: EPA 906.0
Description: 906.0 Tritium
Client: BSK Analytical Laboratories
Date: January 13, 2014

General Information:

1 sample was analyzed for EPA 906.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: A3L1716
Pace Project No.: 30110776

Sample: A3L1716-01 Lab ID: 30110776001 Collected: 12/19/13 10:45 Received: 01/03/14 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Tritium	EPA 906.0	32.8 ± 122 (212)	pCi/L	01/12/14 21:35	10028-17-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: A3L1716
Pace Project No.: 30110776

QC Batch: RADC/18325 Analysis Method: EPA 906.0
QC Batch Method: EPA 906.0 Analysis Description: 906.0 Tritium
Associated Lab Samples: 30110776001

METHOD BLANK: 677836 Matrix: Water
Associated Lab Samples: 30110776001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Tritium	23.8 ± 114 (200)	pCi/L	01/12/14 13:26	

REPORT OF LABORATORY ANALYSIS

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Date: 01/13/2014 03:19 PM

Page 7 of 12



QUALIFIERS

Project: A3L1716
Pace Project No.: 30110776

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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Date: 01/13/2014 03:19 PM

Page 8 of 12



SUBCONTRACT ORDER

A3L1716

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical-Radiochem
1638 Roseytown Rd Ste 2,3,4
Greensburg, PA 15601
Phone :(724) 850-5600
Fax: (724) 722-5208
Turnaround (Days): Standard
QC Deliverables: I ~~Sto~~ III IV

30110776

Table with 3 columns: Sample ID, Samp Desc, Sample Date

A3L1716-01 ML-2 Zone #2 (90-100 ftbgs) 12/19/2013 10:45 001

Matrix: Water

Analysis 250 mL A6 w/ none
EXT-Tritium

Non preserved glass container

Released By [Signature] Date 12/26/13 Received By [Signature] Date 1-3-14/1005

Sample Condition Upon Receipt



Client Name: BSK Project # 30110776

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1Z 93X 911 03 6046 477

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: Bubble Wrap Bubble Bags None Other Styrofoam

Thermometer Used 5 6 7 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature N/A
Temp. should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: MH 1-3-14

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed <u>MH</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Carina Garcia Date: 1/3/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers) Page 10 of 12



Project Number: 30110776
 Client Name: BAL

Item No.	Matrix Code	Sample Description	Analysis	Y	N	Other
001		Glass Jar (120 / 250 / 500 / 1L)				
002		Soil kit (2 SB, 1M, soil jar)				
003		Chemistry (250 / 500 / 1L)				
		Organics (1L)				
		Nutrient (250 / 500)				
		Phenolics (250 ml)				
		TOC (40 ml / 250 ml)				
		TOX (250 ml)				
		Total Metals				
		Dissolved Metals preserved				
		O & G (1L)				
		TPH (1L)				
		VOA (40 ml 30 ml)				
		Cyanide (250 ml)				
		Sulfide (500 ml)				
		Bacteria (120 ml)				
		Wipes / swipe/ smear/ filter				
		Radchem Nalgene (125 / 250 / 500 / 1L)				
		Radchem Nalgene (1/2 gal. / 1 gal.)				
		Cubitainer (500 ml / 4L)				
		Ziploc				
		Other				
		Other				

Quality Control Sample Performance Assessment



Analyst: SLA
Date: 1/13/2014
Worklist: 18325
Matrix: DW
Method: EPA 906.0
SOP: FGHR-021
MB Sample ID: 677836

Method Blank Assessment						
Analyte	Activity	1.96 Sig Unc.	MDC	Critical Value	Flag	Assessment
Tritium	23.8400	114.4000	200.1000	94.99000		

Laboratory Control Sample Assessment						
	LCS	LCSD	LCS	LCSD	LCS	LCSD
Analyte:	Tritium					
Count Date:	1/13/14 0:39	1/13/14 1:40				
Spike I.D.:	10-003	10-003				
Spike Concentration (pCi/L):	2503.320	2503.304				
Volume Used (mL):	0.100	0.100				
Aliquot Volume (L, g, F):	0.103	0.102				
Target Conc. (pCi/L, g, F):	2423.350	2451.576				
1.96 Sigma Uncertainty (Calculated):	66.497	67.271				
Result (pCi/L, g, F):	2280.550	1953.250				
1.96 Sigma Unc:	228.300	204.900				
% Recovery:	94.11%	79.67%				
Assessment:	Pass	Pass				
Upper % Recovery Limits:	125.00%	125.00%				
Lower % Recovery Limits:	75.00%	75.00%				

Duplicate Sample Assessment	
LCS/LCSD Y or N?:	Y
Analyte:	Tritium
Sample I.D.:	LCS18325
Duplicate Sample I.D.:	LCSD18325
Sample Result (pCi/L, g, F):	2280.5500
1.96 Sigma Unc:	228.3000
Sample Duplicate Result (pCi/L, g, F):	1953.2500
Duplicate Sample 1.96 Sigma Unc:	204.9000
Either results below MDC?	NO
Relative Percent Difference:	15.46%
Assessment:	Pass
% RPD Limit:	25.00%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

SLA 1/13/14

Sample Matrix Spike Control Assessment		
Analyte:	Tritium	Tritium
Sample Collection Date:	12/16/2013	12/30/2013
Sample I.D.:	92183458001	30110753001
Sample MS I.D.:	92183458001MS	30110753001MS
Sample MSD I.D.:		
Spike I.D.:	10-003	10-003
MS/MSD Decay Corrected Spike Conc. (pCi/L):	2514.142	2508.731
Spike Volume Used in MS (mL):	0.20	0.20
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):	0.1055	0.1041
MS Target Conc. (pCi/L, g, F):	4721.837	4821.237
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike uncertainty (calculated):	129.567	132.295
MSD Spike uncertainty (calculated):		
Sample Result:	58.260	31.280
Sample 1.96 Sigma Unc.:	123.600	116.000
Sample Matrix Spike Result:	4443.680	4304.400
Sample MS 1.96 Sigma Unc.:	296.200	296.000
Sample Matrix Spike Duplicate Result:		
Sample MSD 1.96 Sigma Unc.:		
MS % Recovery:	92.88%	88.63%
MSD % Recovery:		
MS Assessment:	Pass	Pass
MSD Assessment:		
MS/MSD Upper % Recovery Limits:	125.00%	125.00%
MS/MSD Lower % Recovery Limits:	75.00%	75.00%
Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Analyte:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Sample Matrix Spike Result:		
Sample Matrix Spike 1.96 Sigma Unc.:		
Sample Matrix Spike Duplicate Result:		
Sample Matrix Spike Duplicate 1.96 Sigma Unc.:		
MS/MSD Relative Percent Difference:		
MS/MSD RPD Assessment:		
% RPD Limit:		



Your Project #: A3L1716
 Your C.O.C. #: na

Attention: Michael Ng
 BSK Analytical Laboratories
 1414 Stanislaus Street
 Fresno, CA
 USA 93706

Report Date: 2014/01/27
 Report #: R2806455
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B402018
Received: 2014/01/07, 14:30

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
2,3,7,8-TCDD in Water (1613B)	1	2014/01/15	2014/01/27	BRL SOP-00410	EPA 1613B mod.

Remarks:

The lab certifies that the test results meet all requirements of NELAC, where applicable.
 * RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Marsela Wijaya
 27 Jan 2014 17:48:38 -05:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager:
 Ivana Vukovic, Env Project Manager
 Email: IVukovic@maxxam.ca
 Phone# (905) 817-5700

=====
 This report has been generated and distributed using a secure automated process.
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.
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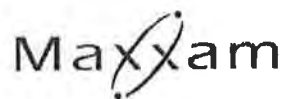


Maxxam Job #: B402018
Report Date: 2014/01/27

BSK Analytical Laboratories
Client Project #: A3L1716

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UL9337						
Sampling Date		2013/12/19 10:45						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	A3L1716-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Dioxins & Furans								
2,3,7,8-Tetra CDD *	pg/L	0.75 U	0.75	4.2	1.00	0.750		3486907
TOTAL TOXIC EQUIVALENCY	pg/L					0.750		
Surrogate Recovery (%)								
37CL4 2378 Tetra CDD *	%	84						3486907
C13-2378 TetraCDD *	%	90						3486907
EDL = Estimated Detection Limit RDL = Reportable Detection Limit TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds QC Batch = Quality Control Batch * CDD = Chloro Dibenzo-p-Dioxin								



Maxxam Job #: B402018
Report Date: 2014/01/27

BSK Analytical Laboratories
Client Project #: A3L1716

GENERAL COMMENTS

Results relate only to the Items tested.



Maxxam Job #: B402018
Report Date: 2014/01/27

BSK Analytical Laboratories
Client Project #: A3L1716

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
3486907	CXU	Spiked Blank	2,3,7,8-Tetra CDD	2014/01/26		76	%	67 - 158
			37CL4 2378 Tetra CDD	2014/01/26		84	%	40 - 130
			C13-2378 TetraCDD	2014/01/26		89	%	24 - 164
3486907	CXU	Method Blank	2,3,7,8-Tetra CDD	2014/01/26	0.83, EDL=0.83		pg/L	
			37CL4 2378 Tetra CDD	2014/01/26		81	%	40 - 130
			C13-2378 TetraCDD	2014/01/26		87	%	24 - 164

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



Maxxam Job #: B402018
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BSK Analytical Laboratories
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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Kay Shaw, C. Chem, Sr Scientific Specialist, HRMS Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



SUBCONTRACT ORDER
A3L1716

SENDING LABORATORY:

BSK Associales
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager Michael Ng
E-mail mng@bskinc.com

RECEIVING LABORATORY:

Maxxam Analytics
PO Box 57437, Station A
Toronto, ON M5W5M5
Phone (905) 817-5784
Fax: -
Turnaround (Days): Standard
QC Deliverables: I, Std III, IV

7-Jan-14 14:30
Ivana Vukovic
B402018
M P ENV-906



Sample ID	Samp Desc	Sample Date
A3L1716-01	ML-2 Zone #2 (90-100 flbgs)	12/19/2013 10:45
	Matrix: Water	
	Analysis: <u>ILAG</u> EXT-Dioxin-DW matrix, EPA 1613 2,3,7 & TCDD	

Y. M. McLean BSK 1/6/14 14:00 Fed Exp

Released By: _____ Date: _____ Received By: _____ Date: _____

Released By: _____ Date: _____ Received By: Magdalena CCP Date: 2014/01/07 14:30

4.1/4.4/4.1°C Page 1 of 3

CERTIFICATE OF ANALYSIS

Client: California American Water-Monterey P.O.BOX 951 Monterey CA, 93942-0951	Report Date: 03/06/14 09:27
Attention: Travis Peterson	Received Date: 01/14/14 09:15
Phone: (831) 646-3269	Turn Around: Normal
Fax: -	Client Project: Monterey Peninsula Water Supply Project (MPWSP)
Work Order(s): 4A14004	

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Travis Peterson :

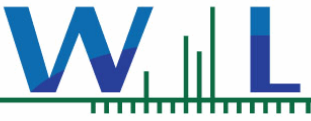
Enclosed are the results of analyses for samples received 01/14/14 09:15 with the Chain of Custody document. The samples were received in good condition, at 3.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Hai Van Nguyen
Project Manager





California American Water-Monterey
P.O.BOX 951
Monterey CA, 93942-0951

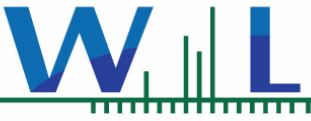
Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
ML-3 Zone # 1 (180-190 ftbgs)	Nathan Reynolds		4A14004-01	Water	01/11/14 16:00

ANALYSES

- Anions by IC, EPA Method 300.0/300.1/326
- Carbamates and Urea Pesticides
- Chlorinated Herbicides
- Chlorinated Pesticides and/or PCBs
- Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods
- Diquat and Paraquat by EPA 549.2
- Endothall By EPA 548.1
- EPA 1613B mod.
- Fumigants by EPA Method 504.1
- Glyphosate by EPA 547
- Metals by EPA 200 Series Methods
- Semivolatile Organic Compounds by GC/MS
- Subcontracted Analyses
- Volatile Organic Compounds by EPA Method 524.2



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Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:27

4A14004-01 ML-3 Zone # 1 (180-190 ftbgs)

Sampled: 01/11/14 16:00

Sampled By: Nathan Reynolds

Matrix: Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: SM 2320B	Batch: W4A0723	Prepared: 01/17/14 13:33				Analyst: ajp
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Alkalinity as CaCO3	210	2.0	mg/l	1	01/17/14 16:43	
Alkalinity as CaCO3	210	2.0	mg/l	1	01/17/14 16:43	
Bicarbonate Alkalinity as HCO3	250	2.0	mg/l	1	01/17/14 16:43	
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l	1	01/17/14 16:43	
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l	1	01/17/14 16:43	

Method: SM 2510B	Batch: W4A0928	Prepared: 01/23/14 08:26				Analyst: ajp
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Specific Conductance (EC)	12000	2.0	umhos/cm	1	01/23/14 10:38	

Method: SM 2540C M	Batch: W4A0644	Prepared: 01/16/14 13:17				Analyst: ajw
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	7400	10	mg/l	1	01/16/14 15:10	

Method: SM 4500H+-B	Batch: W4A0555	Prepared: 01/14/14 17:04				Analyst: nra
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
pH	7.49	0.10	Units	1	01/14/14 17:38	*

Method: SM 5540C	Batch: W4A0545	Prepared: 01/14/14 14:56				Analyst: nra
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
MBAS	ND	0.050	mg/l	1	01/14/14 16:49	O-09

Method: Various	Batch: [CALC]	Prepared: 01/17/14 13:33				Analyst: atl
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Anions	120	1.6	meq/l	100	01/17/14 16:43	

Diquat and Paraquat by EPA 549.2

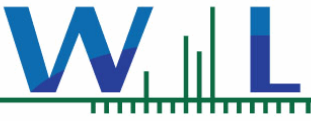
Method: EPA 549.2	Batch: W4A0444	Prepared: 01/15/14 17:01				Analyst: cwh
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Diquat	ND	4.0	ug/l	1	01/16/14 15:28	

Endothall By EPA 548.1

Method: EPA 548.1	Batch: W4A0556	Prepared: 01/14/14 17:06				Analyst: abj
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Endothall	ND	45	ug/l	1	01/18/14 21:02	

EPA 1613B mod.

Method: EPA 1613B mod.	Batch: 3522182	Prepared: 02/23/14 00:00				Analyst: VCI
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
2,3,7,8-Tetra CDD	ND	4.4	pg/L	1	02/26/14 00:00	S_MAXX



California American Water-Monterey
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Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:27

4A14004-01 ML-3 Zone # 1 (180-190 ftbgs)

Sampled: 01/11/14 16:00

Sampled By: Nathan Reynolds

Matrix: Water

EPA 1613B mod.

Method: EPA 1613B mod.

Batch: 3522182

Prepared: 02/23/14 00:00

Analyst: VCI

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Surr: 37CL4 2378 Tetra CDD	88 %	Conc:176	40-130	%		S_MAXX
Surr: C13-2378 TetraCDD	123 %	Conc:246	24-164	%		S_MAXX

Fumigants by EPA Method 504.1

Method: EPA 504.1

Batch: W4A0789

Prepared: 01/20/14 11:22

Analyst: jch

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,2-Dibromo-3-chloropropane	ND	0.010	ug/l	1	01/22/14 16:23	
1,2-Dibromoethane (EDB)	ND	0.020	ug/l	1	01/22/14 16:23	

Glyphosate by EPA 547

Method: EPA 547

Batch: W4A0601

Prepared: 01/15/14 15:08

Analyst: cwh

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Glyphosate	ND	5.0	ug/l	1	01/15/14 17:04	

Metals by EPA 200 Series Methods

Method: [CALC]

Batch: [CALC]

Prepared: 01/15/14 14:31

Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Cations	120	0.037	meq/l	1	01/17/14 09:31	

Method: EPA 200.7

Batch: [CALC]

Prepared: 01/15/14 14:31

Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium Hardness as CaCO3	1020	0.250	mg/l	1	01/17/14 09:31	

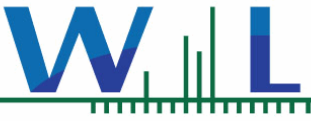
Method: EPA 200.7

Batch: W4A0592

Prepared: 01/15/14 14:31

Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Barium, Dissolved	0.15	0.0020	mg/l	1	01/17/14 09:26	
Boron, Dissolved	500	10	ug/l	1	01/17/14 09:26	
Calcium, Dissolved	391	0.100	mg/l	1	01/17/14 09:26	
Calcium, Total	409	0.100	mg/l	1	01/17/14 09:31	
Iron, Dissolved	ND	10	ug/l	1	01/17/14 09:26	
Iron, Total	6.9	0.010	mg/l	1	01/17/14 09:31	
Magnesium, Dissolved	298	0.100	mg/l	1	01/17/14 09:26	
Magnesium, Total	310	0.100	mg/l	1	01/17/14 09:31	
Manganese, Dissolved	1400	5.0	ug/l	1	01/17/14 09:26	
Manganese, Total	1.5	0.0050	mg/l	1	01/17/14 09:31	
Potassium, Dissolved	58	0.10	mg/l	1	01/17/14 09:26	
Potassium, Total	60	0.10	mg/l	1	01/17/14 09:31	
Silica as SiO2, Dissolved	36	0.10	mg/l	1	01/17/14 09:26	
Sodium, Dissolved	1600	0.50	mg/l	1	01/17/14 09:26	
Sodium, Total	1700	0.50	mg/l	1	01/17/14 09:31	



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4A14004-01 ML-3 Zone # 1 (180-190 ftbgs)

Sampled: 01/11/14 16:00

Sampled By: Nathan Reynolds

Matrix: Water

Metals by EPA 200 Series Methods

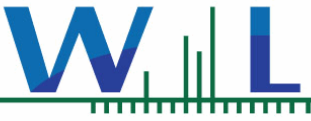
Method: EPA 200.7	Batch: W4A0592	Prepared: 01/15/14 14:31				Analyst: jck
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Strontium, Dissolved	3100	2.0	ug/l	1	01/17/14 09:26	

Method: EPA 200.7	Batch: W4B0893	Prepared: 02/20/14 14:04				Analyst: jck
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Lithium, Total	110	20	ug/l	2	02/21/14 10:46	

Method: EPA 200.8	Batch: W4A0619	Prepared: 01/16/14 09:08				Analyst: XXX
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Aluminum, Total	950	5.0	ug/l	1	01/20/14 19:47	
Arsenic, Total	1.0	0.40	ug/l	1	01/20/14 19:47	
Copper, Total	10	0.50	ug/l	1	01/20/14 19:47	
Zinc, Total	240	5.0	ug/l	1	01/20/14 19:47	

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2	Batch: W4A0574	Prepared: 01/15/14 09:58				Analyst: abj
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Alachlor	ND	0.10	ug/l	1	01/23/14 05:12	
Atrazine	ND	0.10	ug/l	1	01/23/14 05:12	
Benzo (a) pyrene	ND	0.10	ug/l	1	01/23/14 05:12	
Bis(2-ethylhexyl)adipate	ND	5.0	ug/l	1	01/23/14 05:12	
Bis(2-ethylhexyl)phthalate	4.0	3.0	ug/l	1	01/23/14 05:12	
Bromacil	ND	0.50	ug/l	1	01/23/14 05:12	
Butachlor	ND	0.10	ug/l	1	01/23/14 05:12	
Captan	ND	1.0	ug/l	1	01/23/14 05:12	
Chloroprotham	ND	0.10	ug/l	1	01/23/14 05:12	
Cyanazine	ND	0.10	ug/l	1	01/23/14 05:12	
Diazinon	ND	0.10	ug/l	1	01/23/14 05:12	
Dimethoate	ND	0.20	ug/l	1	01/23/14 05:12	
Diphenamid	ND	0.10	ug/l	1	01/23/14 05:12	
Disulfoton	ND	0.10	ug/l	1	01/23/14 05:12	
EPTC	ND	0.10	ug/l	1	01/23/14 05:12	
Metolachlor	ND	0.10	ug/l	1	01/23/14 05:12	
Metribuzin	ND	0.10	ug/l	1	01/23/14 05:12	
Molinate	ND	0.10	ug/l	1	01/23/14 05:12	
Prometon	ND	0.10	ug/l	1	01/23/14 05:12	
Prometryn	ND	0.10	ug/l	1	01/23/14 05:12	
Simazine	ND	0.10	ug/l	1	01/23/14 05:12	
Terbacil	ND	2.0	ug/l	1	01/23/14 05:12	
Thiobencarb	ND	0.10	ug/l	1	01/23/14 05:12	
Trithion	ND	0.10	ug/l	1	01/23/14 05:12	



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Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:27

4A14004-01 ML-3 Zone # 1 (180-190 ftbgs)

Sampled: 01/11/14 16:00

Sampled By: Nathan Reynolds

Matrix: Water

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2

Batch: W4A0574

Prepared: 01/15/14 09:58

Analyst: abj

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Surr: 1,3-Dimethyl-2-nitrobenzene	106 %	Conc:5.31	73-138	%		
Surr: Perylene-d12	102 %	Conc:5.08	30-118	%		
Surr: Triphenyl phosphate	126 %	Conc:6.30	70-149	%		

Subcontracted Analyses

Method: EPA 906.0

Batch: W4A1172

Prepared: 01/18/14 06:40

Analyst: sub

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Tritium	-2.52		pCi/L	1	01/18/14 06:40	A-01
Counting Error (+/-): 125	MDA: 221					

Volatile Organic Compounds by EPA Method 524.2

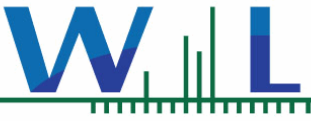
Method: EPA 524.2

Batch: W4A0558

Prepared: 01/15/14 08:20

Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l	1	01/16/14 02:24	
1,1,1-Trichloroethane	ND	0.50	ug/l	1	01/16/14 02:24	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	1	01/16/14 02:24	
1,1,2-Trichloroethane	ND	0.50	ug/l	1	01/16/14 02:24	
1,1-Dichloroethane	ND	0.50	ug/l	1	01/16/14 02:24	
1,1-Dichloroethene	ND	0.50	ug/l	1	01/16/14 02:24	
1,1-Dichloropropene	ND	0.50	ug/l	1	01/16/14 02:24	
1,2,3-Trichlorobenzene	ND	0.50	ug/l	1	01/16/14 02:24	
1,2,3-Trichloropropane	ND	0.50	ug/l	1	01/16/14 02:24	
1,2,4-Trichlorobenzene	ND	0.50	ug/l	1	01/16/14 02:24	
1,2,4-Trimethylbenzene	ND	0.50	ug/l	1	01/16/14 02:24	
1,2-Dichloroethane	ND	0.50	ug/l	1	01/16/14 02:24	
1,2-Dichloropropane	ND	0.50	ug/l	1	01/16/14 02:24	
1,3,5-Trimethylbenzene	ND	0.50	ug/l	1	01/16/14 02:24	
1,3-Dichloropropane	ND	0.50	ug/l	1	01/16/14 02:24	
1,3-Dichloropropene, Total	ND	0.50	ug/l	1	01/16/14 02:24	
2,2-Dichloropropane	ND	0.50	ug/l	1	01/16/14 02:24	
2-Butanone	ND	5.0	ug/l	1	01/16/14 02:24	
2-Chloroethyl vinyl ether	ND	1.0	ug/l	1	01/16/14 02:24	
2-Chlorotoluene	ND	0.50	ug/l	1	01/16/14 02:24	
2-Hexanone	ND	5.0	ug/l	1	01/16/14 02:24	
4-Chlorotoluene	ND	0.50	ug/l	1	01/16/14 02:24	
4-Methyl-2-pentanone	ND	5.0	ug/l	1	01/16/14 02:24	
Benzene	ND	0.50	ug/l	1	01/16/14 02:24	
Bromobenzene	ND	0.50	ug/l	1	01/16/14 02:24	
Bromochloromethane	ND	0.50	ug/l	1	01/16/14 02:24	
Bromodichloromethane	ND	0.50	ug/l	1	01/16/14 02:24	



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Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:27

4A14004-01 ML-3 Zone # 1 (180-190 ftbgs)

Sampled: 01/11/14 16:00

Sampled By: Nathan Reynolds

Matrix: Water

Volatile Organic Compounds by EPA Method 524.2

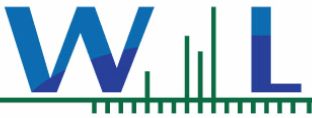
Method: EPA 524.2

Batch: W4A0558

Prepared: 01/15/14 08:20

Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Bromoform	ND	0.50	ug/l	1	01/16/14 02:24	
Bromomethane	ND	0.50	ug/l	1	01/16/14 02:24	
Carbon tetrachloride	ND	0.50	ug/l	1	01/16/14 02:24	
Chlorobenzene	ND	0.50	ug/l	1	01/16/14 02:24	
Chloroethane	ND	0.50	ug/l	1	01/16/14 02:24	
Chloroform	ND	0.50	ug/l	1	01/16/14 02:24	
Chloromethane	ND	0.50	ug/l	1	01/16/14 02:24	
cis-1,2-Dichloroethene	ND	0.50	ug/l	1	01/16/14 02:24	
cis-1,3-Dichloropropene	ND	0.50	ug/l	1	01/16/14 02:24	
Dibromochloromethane	ND	0.50	ug/l	1	01/16/14 02:24	
Dibromomethane	ND	0.50	ug/l	1	01/16/14 02:24	
Dichlorodifluoromethane (Freon 12)	ND	0.50	ug/l	1	01/16/14 02:24	
Di-isopropyl ether	ND	2.0	ug/l	1	01/16/14 02:24	
Ethyl tert-butyl ether	ND	2.0	ug/l	1	01/16/14 02:24	
Ethylbenzene	ND	0.50	ug/l	1	01/16/14 02:24	
Freon 113	ND	5.0	ug/l	1	01/16/14 02:24	
Hexachlorobutadiene	ND	0.50	ug/l	1	01/16/14 02:24	
Isopropylbenzene	ND	0.50	ug/l	1	01/16/14 02:24	
m,p-Xylene	ND	0.50	ug/l	1	01/16/14 02:24	
m-Dichlorobenzene	ND	0.50	ug/l	1	01/16/14 02:24	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/l	1	01/16/14 02:24	
Methylene chloride	ND	0.50	ug/l	1	01/16/14 02:24	
Naphthalene	ND	0.50	ug/l	1	01/16/14 02:24	
n-Butylbenzene	ND	0.50	ug/l	1	01/16/14 02:24	
n-Propylbenzene	ND	0.50	ug/l	1	01/16/14 02:24	
o-Dichlorobenzene	ND	0.50	ug/l	1	01/16/14 02:24	
o-Xylene	ND	0.50	ug/l	1	01/16/14 02:24	
p-Dichlorobenzene	ND	0.50	ug/l	1	01/16/14 02:24	
p-Isopropyltoluene	ND	0.50	ug/l	1	01/16/14 02:24	
sec-Butylbenzene	ND	0.50	ug/l	1	01/16/14 02:24	
Styrene	ND	0.50	ug/l	1	01/16/14 02:24	
Tert-amyl methyl ether	ND	2.0	ug/l	1	01/16/14 02:24	
tert-Butylbenzene	ND	0.50	ug/l	1	01/16/14 02:24	
Tetrachloroethene	ND	0.50	ug/l	1	01/16/14 02:24	
THMs, Total	ND	2.0	ug/l	1	01/16/14 02:24	
Toluene	ND	0.50	ug/l	1	01/16/14 02:24	
trans-1,2-Dichloroethene	ND	0.50	ug/l	1	01/16/14 02:24	
trans-1,3-Dichloropropene	ND	0.50	ug/l	1	01/16/14 02:24	
Trichloroethene	ND	0.50	ug/l	1	01/16/14 02:24	
Trichlorofluoromethane	ND	0.50	ug/l	1	01/16/14 02:24	



California American Water-Monterey
P.O. BOX 951
Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
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4A14004-01 ML-3 Zone # 1 (180-190 ftbgs)**Sampled:** 01/11/14 16:00**Sampled By:** Nathan Reynolds**Matrix:** Water**Volatile Organic Compounds by EPA Method 524.2**

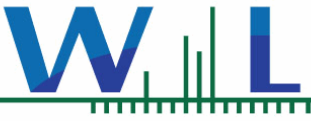
Method: EPA 524.2

Batch: W4A0558

Prepared: 01/15/14 08:20

Analyst: mdt

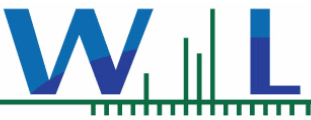
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Vinyl chloride	ND	0.50	ug/l	1	01/16/14 02:24	
Xylenes, Total	ND	1.0	ug/l	1	01/16/14 02:24	
<i>Surr: 1,2-Dichlorobenzene-d4</i>	97 %	Conc:9.69	70-130	%		
<i>Surr: 4-Bromofluorobenzene</i>	85 %	Conc:8.54	70-130	%		



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Date Received: 01/14/14 09:15
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QUALITY CONTROL SECTION



California American Water-Monterey
 P.O.BOX 951
 Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
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Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

Batch W4A0532 - EPA 300.0

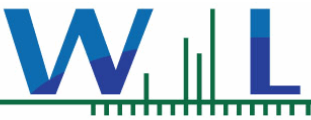
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0532-BLK1)				Analyzed: 01/14/14 11:31						
Chloride, Total	ND	0.50	mg/l							
Fluoride, Total	ND	0.10	mg/l							
Sulfate as SO4	ND	0.50	mg/l							
LCS (W4A0532-BS1)				Analyzed: 01/14/14 11:49						
Chloride, Total	3.81	0.50	mg/l	4.00		95	90-110			
Fluoride, Total	2.06	0.10	mg/l	2.00		103	90-110			
Sulfate as SO4	7.78	0.50	mg/l	8.00		97	90-110			
Matrix Spike (W4A0532-MS1)				Source: 4A13043-05		Analyzed: 01/14/14 12:49				
Chloride, Total	45.3	5.0	mg/l	40.0	7.51	94	76-118			
Fluoride, Total	20.3	1.0	mg/l	20.0	0.713	98	86-107			
Sulfate as SO4	92.8	5.0	mg/l	80.0	16.5	95	78-111			
Matrix Spike (W4A0532-MS2)				Source: 4A13065-02		Analyzed: 01/14/14 20:15				
Chloride, Total	65.9	5.0	mg/l	40.0	27.3	96	76-118			
Fluoride, Total	21.5	1.0	mg/l	20.0	0.396	105	86-107			
Sulfate as SO4	132	5.0	mg/l	80.0	56.4	95	78-111			
Matrix Spike Dup (W4A0532-MSD1)				Source: 4A13043-05		Analyzed: 01/14/14 13:08				
Chloride, Total	46.3	5.0	mg/l	40.0	7.51	97	76-118	2	20	
Fluoride, Total	21.3	1.0	mg/l	20.0	0.713	103	86-107	5	20	
Sulfate as SO4	92.3	5.0	mg/l	80.0	16.5	95	78-111	0.6	20	
Matrix Spike Dup (W4A0532-MSD2)				Source: 4A13065-02		Analyzed: 01/14/14 20:34				
Chloride, Total	65.3	5.0	mg/l	40.0	27.3	95	76-118	1	20	
Fluoride, Total	21.4	1.0	mg/l	20.0	0.396	105	86-107	0.5	20	
Sulfate as SO4	132	5.0	mg/l	80.0	56.4	94	78-111	0.7	20	

Batch W4A0844 - EPA 300.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0844-BLK1)				Analyzed: 01/21/14 15:14						
Bromide	ND	10	ug/l							
Surr: Dichloroacetate	502		ug/l	500		100	90-115			
LCS (W4A0844-BS1)				Analyzed: 01/21/14 15:14						
Bromide	99.2	10	ug/l	100		99	85-115			
Surr: Dichloroacetate	490		ug/l	500		98	90-115			
Matrix Spike (W4A0844-MS1)				Source: 4A08035-01		Analyzed: 01/21/14 15:14				
Bromide	757	20	ug/l	200	605	76	73-125			
Surr: Dichloroacetate	467		ug/l	500		93	90-115			
Matrix Spike Dup (W4A0844-MSD1)				Source: 4A08035-01		Analyzed: 01/21/14 15:14				
Bromide	784	20	ug/l	200	605	89	73-125	4	20	
Surr: Dichloroacetate	487		ug/l	500		97	90-115			

Batch W4B0889 - EPA 9056A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
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California American Water-Monterey
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 Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
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Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

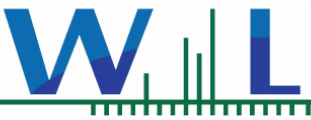
Batch W4B0889 - EPA 9056A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0889-BLK1)				Analyzed: 02/20/14 15:41						
Iodide, Dissolved	ND	10	ug/l							
LCS (W4B0889-BS1)				Analyzed: 02/20/14 15:41						
Iodide, Dissolved	40.0	10	ug/l	40.0		100	85-115			
Duplicate (W4B0889-DUP1)				Source: 4B06015-02 Analyzed: 02/20/14 15:41						
Iodide, Dissolved	63.0	25	ug/l		63.9			1	20	
Matrix Spike (W4B0889-MS1)				Source: 4B06015-02 Analyzed: 02/20/14 15:41						
Iodide, Dissolved	176	25	ug/l	100	63.9	112	80-120			
Matrix Spike Dup (W4B0889-MSD1)				Source: 4B06015-02 Analyzed: 02/20/14 15:41						
Iodide, Dissolved	149	25	ug/l	100	63.9	85	80-120	17	20	

Carbamates and Urea Pesticides - Quality Control

Batch W4A0802 - EPA 531.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0802-BLK1)				Analyzed: 01/20/14 23:50						
3-Hydroxycarbofuran	ND	2.0	ug/l							
Aldicarb	ND	2.0	ug/l							
Aldicarb sulfone	ND	2.0	ug/l							
Aldicarb sulfoxide	ND	2.0	ug/l							
Carbaryl	ND	2.0	ug/l							
Carbofuran	ND	2.0	ug/l							
Methiocarb	ND	2.0	ug/l							
Methomyl	ND	2.0	ug/l							
Oxamyl	ND	2.0	ug/l							
Propoxur (Baygon)	ND	2.0	ug/l							
LCS (W4A0802-BS1)				Analyzed: 01/20/14 23:50						
3-Hydroxycarbofuran	10.3	2.0	ug/l	10.0		103	80-120			
Aldicarb	11.1	2.0	ug/l	10.0		111	80-120			
Aldicarb sulfone	9.86	2.0	ug/l	10.0		99	80-120			
Aldicarb sulfoxide	10.3	2.0	ug/l	10.0		103	80-120			
Carbaryl	11.1	2.0	ug/l	10.0		111	80-120			
Carbofuran	9.64	2.0	ug/l	10.0		96	80-120			
Methiocarb	11.7	2.0	ug/l	10.0		117	80-120			
Methomyl	9.53	2.0	ug/l	10.0		95	80-120			
Oxamyl	10.1	2.0	ug/l	10.0		101	80-120			
Propoxur (Baygon)	9.79	2.0	ug/l	10.0		98	80-120			
Matrix Spike (W4A0802-MS1)				Source: 4A13019-01 Analyzed: 01/20/14 23:50						
3-Hydroxycarbofuran	8.26	2.0	ug/l	10.0	ND	83	65-135			
Aldicarb	10.3	2.0	ug/l	10.0	ND	103	65-135			
Aldicarb sulfone	9.41	2.0	ug/l	10.0	ND	94	65-135			
Aldicarb sulfoxide	10.3	2.0	ug/l	10.0	ND	103	65-135			



California American Water-Monterey
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Date Received: 01/14/14 09:15
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Carbamates and Urea Pesticides - Quality Control

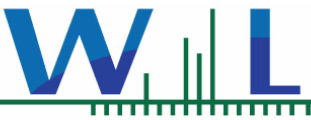
Batch W4A0802 - EPA 531.1

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Matrix Spike (W4A0802-MS1)			Source: 4A13019-01		Analyzed: 01/20/14 23:50					
Carbaryl	9.56	2.0	ug/l	10.0	ND	96	65-135			
Carbofuran	10.2	2.0	ug/l	10.0	ND	102	65-135			
Methiocarb	10.0	2.0	ug/l	10.0	ND	100	65-135			
Methomyl	9.17	2.0	ug/l	10.0	ND	92	65-135			
Oxamyl	8.48	2.0	ug/l	10.0	ND	85	65-135			
Propoxur (Baygon)	8.94	2.0	ug/l	10.0	ND	89	65-135			
Matrix Spike Dup (W4A0802-MSD1)			Source: 4A13019-01		Analyzed: 01/20/14 23:50					
3-Hydroxycarbofuran	8.62	2.0	ug/l	10.0	ND	86	65-135	4	30	
Aldicarb	10.1	2.0	ug/l	10.0	ND	101	65-135	2	30	
Aldicarb sulfone	9.03	2.0	ug/l	10.0	ND	90	65-135	4	30	
Aldicarb sulfoxide	10.9	2.0	ug/l	10.0	ND	109	65-135	6	30	
Carbaryl	9.23	2.0	ug/l	10.0	ND	92	65-135	4	30	
Carbofuran	8.51	2.0	ug/l	10.0	ND	85	65-135	18	30	
Methiocarb	9.94	2.0	ug/l	10.0	ND	99	65-135	1	30	
Methomyl	9.60	2.0	ug/l	10.0	ND	96	65-135	5	30	
Oxamyl	7.27	2.0	ug/l	10.0	ND	73	65-135	15	30	
Propoxur (Baygon)	8.90	2.0	ug/l	10.0	ND	89	65-135	0.4	30	

Chlorinated Herbicides - Quality Control

Batch W4A0564 - EPA 515.3

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Blank (W4A0564-BLK1)			Analyzed: 01/24/14 22:44							
2,4,5-T	ND	0.20	ug/l							
2,4,5-TP (Silvex)	ND	0.20	ug/l							
2,4-D	ND	0.40	ug/l							
2,4-DB	ND	2.0	ug/l							
3,5-Dichlorobenzoic acid	ND	1.0	ug/l							
Acifluorfen	ND	0.40	ug/l							
Bentazon	ND	2.0	ug/l							
Dalapon	ND	0.40	ug/l							
DCPA	ND	0.10	ug/l							
Dicamba	ND	0.60	ug/l							
Dichloroprop	ND	0.30	ug/l							
Dinoseb	ND	0.40	ug/l							
Pentachlorophenol	ND	0.20	ug/l							
Picloram	ND	0.60	ug/l							
Surr: 2,4-DCAA	9.76		ug/l	10.0		98	70-130			
LCS (W4A0564-BS1)			Analyzed: 01/24/14 23:12							
2,4,5-T	4.09	0.20	ug/l	4.00		102	70-130			
2,4,5-TP (Silvex)	3.98	0.20	ug/l	4.00		99	70-130			
2,4-D	9.60	0.40	ug/l	8.00		120	70-130			



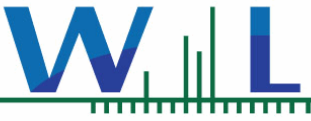
California American Water-Monterey
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 Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
 Date Reported: 03/06/14 09:27

Chlorinated Herbicides - Quality Control

Batch W4A0564 - EPA 515.3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4A0564-BS1)				Analyzed: 01/24/14 23:12						
2,4-DB	13.9	2.0	ug/l	16.0		87	70-130			
3,5-Dichlorobenzoic acid	8.32	1.0	ug/l	8.00		104	70-130			
Acifluorfen	4.36	0.40	ug/l	4.00		109	70-130			
Bentazon	15.0	2.0	ug/l	16.0		94	70-130			
Dalapon	9.17	0.40	ug/l	8.00		115	70-130			
DCPA	3.66	0.10	ug/l	4.00		92	70-130			
Dicamba	7.56	0.60	ug/l	8.00		95	70-130			
Dichloroprop	9.26	0.30	ug/l	8.00		116	70-130			
Dinoseb	4.08	0.40	ug/l	4.00		102	70-130			
Pentachlorophenol	3.85	0.20	ug/l	4.00		96	70-130			
Picloram	4.39	0.60	ug/l	4.00		110	70-130			
Surr: 2,4-DCAA	10.4		ug/l	10.0		104	70-130			
Matrix Spike (W4A0564-MS1)				Source: 4A14003-01		Analyzed: 01/24/14 23:40				
2,4,5-T	3.92	0.20	ug/l	4.00	ND	98	70-130			
2,4,5-TP (Silvex)	3.77	0.20	ug/l	4.00	ND	94	70-130			
2,4-D	9.09	0.40	ug/l	8.00	ND	114	70-130			
2,4-DB	12.1	2.0	ug/l	16.0	ND	75	70-130			
3,5-Dichlorobenzoic acid	7.35	1.0	ug/l	8.00	ND	92	70-130			
Acifluorfen	4.70	0.40	ug/l	4.00	ND	118	70-130			
Bentazon	7.01	2.0	ug/l	16.0	ND	44	70-130			MS-05
Dalapon	9.15	0.40	ug/l	8.00	ND	114	70-130			
DCPA	3.46	0.10	ug/l	4.00	ND	86	70-130			
Dicamba	7.07	0.60	ug/l	8.00	ND	88	70-130			
Dichloroprop	9.83	0.30	ug/l	8.00	ND	123	70-130			
Dinoseb	2.26	0.40	ug/l	4.00	ND	57	70-130			MS-05
Pentachlorophenol	1.51	0.20	ug/l	4.00	ND	38	70-130			MS-05
Picloram	4.30	0.60	ug/l	4.00	ND	108	70-130			
Surr: 2,4-DCAA	9.06		ug/l	10.0		91	70-130			
Matrix Spike Dup (W4A0564-MSD1)				Source: 4A14003-01		Analyzed: 01/25/14 00:08				
2,4,5-T	3.93	0.20	ug/l	4.00	ND	98	70-130	0.3	30	
2,4,5-TP (Silvex)	3.76	0.20	ug/l	4.00	ND	94	70-130	0.4	30	
2,4-D	9.31	0.40	ug/l	8.00	ND	116	70-130	2	30	
2,4-DB	12.6	2.0	ug/l	16.0	ND	79	70-130	4	30	
3,5-Dichlorobenzoic acid	7.91	1.0	ug/l	8.00	ND	99	70-130	7	30	
Acifluorfen	4.85	0.40	ug/l	4.00	ND	121	70-130	3	30	
Bentazon	7.48	2.0	ug/l	16.0	ND	47	70-130	6	30	MS-05
Dalapon	9.18	0.40	ug/l	8.00	ND	115	70-130	0.2	30	
DCPA	3.47	0.10	ug/l	4.00	ND	87	70-130	0.3	30	
Dicamba	7.51	0.60	ug/l	8.00	ND	94	70-130	6	30	
Dichloroprop	9.85	0.30	ug/l	8.00	ND	123	70-130	0.2	30	
Dinoseb	2.08	0.40	ug/l	4.00	ND	52	70-130	8	30	MS-05
Pentachlorophenol	1.57	0.20	ug/l	4.00	ND	39	70-130	4	30	MS-05
Picloram	4.46	0.60	ug/l	4.00	ND	111	70-130	3	30	
Surr: 2,4-DCAA	9.38		ug/l	10.0		94	70-130			



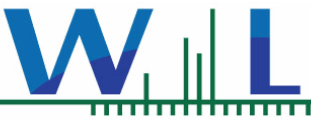
California American Water-Monterey
 P.O.BOX 951
 Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
 Date Reported: 03/06/14 09:27

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4A0617 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0617-BLK1)				Analyzed: 01/29/14 19:18						
4,4'-DDD	ND	0.010	ug/l							
4,4'-DDE	ND	0.010	ug/l							
4,4'-DDT	ND	0.010	ug/l							
Aldrin	ND	0.010	ug/l							
alpha-BHC	ND	0.010	ug/l							
Aroclor 1016	ND	0.10	ug/l							
Aroclor 1221	ND	0.10	ug/l							
Aroclor 1232	ND	0.10	ug/l							
Aroclor 1242	ND	0.10	ug/l							
Aroclor 1248	ND	0.10	ug/l							
Aroclor 1254	ND	0.10	ug/l							
Aroclor 1260	ND	0.10	ug/l							
beta-BHC	ND	0.010	ug/l							
Chlordane (tech)	ND	0.10	ug/l							
Chlorothalonil	ND	0.050	ug/l							
delta-BHC	ND	0.010	ug/l							
Dieldrin	ND	0.010	ug/l							
Endosulfan I	ND	0.010	ug/l							
Endosulfan II	ND	0.010	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							
Endrin	ND	0.010	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.010	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.010	ug/l							
Hexachlorobenzene	ND	0.010	ug/l							
Hexachlorocyclopentadiene	ND	0.050	ug/l							
Methoxychlor	ND	0.010	ug/l							
PCBs, Total	ND	0.50	ug/l							
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
Surr: Decachlorobiphenyl	0.103		ug/l	0.100		103	70-130			
Surr: Tetrachloro-meta-xylene	0.0743		ug/l	0.100		74	70-130			
LCS (W4A0617-BS1)				Analyzed: 01/29/14 19:48						
4,4'-DDD	0.125	0.010	ug/l	0.100		125	55-142			
4,4'-DDE	0.111	0.010	ug/l	0.100		111	49-129			
4,4'-DDT	0.110	0.010	ug/l	0.100		110	54-160			
Aldrin	0.0542	0.010	ug/l	0.100		54	29-115			
alpha-BHC	0.0952	0.010	ug/l	0.100		95	59-131			
beta-BHC	0.0982	0.010	ug/l	0.100		98	63-136			
delta-BHC	0.101	0.010	ug/l	0.100		101	59-137			
Dieldrin	0.0796	0.010	ug/l	0.100		80	59-135			
Endosulfan I	0.0907	0.010	ug/l	0.100		91	28-138			



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Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4A0617 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/29/14 19:48										
LCS (W4A0617-BS1)										
Endosulfan II	0.103	0.010	ug/l	0.100		103	53-133			
Endosulfan sulfate	0.117	0.010	ug/l	0.100		117	58-155			
Endrin	0.0972	0.010	ug/l	0.100		97	57-148			
Endrin aldehyde	0.0318	0.010	ug/l	0.100		32	45-139			Q-02
gamma-BHC (Lindane)	0.0931	0.010	ug/l	0.100		93	59-129			
Heptachlor	0.0855	0.010	ug/l	0.100		85	42-136			
Heptachlor epoxide	0.0922	0.010	ug/l	0.100		92	59-134			
Methoxychlor	0.114	0.010	ug/l	0.100		114	56-167			
Surr: Decachlorobiphenyl	0.103		ug/l	0.100		103	70-130			
Surr: Tetrachloro-meta-xylene	0.0773		ug/l	0.100		77	70-130			

LCS Dup (W4A0617-BSD1)

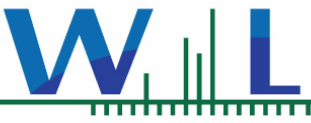
Analyzed: 01/29/14 20:19

4,4'-DDD	0.140	0.010	ug/l	0.100		140	55-142	12	25	
4,4'-DDE	0.123	0.010	ug/l	0.100		123	49-129	10	25	
4,4'-DDT	0.124	0.010	ug/l	0.100		124	54-160	12	25	
Aldrin	0.0604	0.010	ug/l	0.100		60	29-115	11	25	
alpha-BHC	0.101	0.010	ug/l	0.100		101	59-131	6	25	
beta-BHC	0.107	0.010	ug/l	0.100		107	63-136	9	25	
delta-BHC	0.111	0.010	ug/l	0.100		111	59-137	9	25	
Dieldrin	0.0854	0.010	ug/l	0.100		85	59-135	7	25	
Endosulfan I	0.100	0.010	ug/l	0.100		100	28-138	10	25	
Endosulfan II	0.114	0.010	ug/l	0.100		114	53-133	11	25	
Endosulfan sulfate	0.134	0.010	ug/l	0.100		134	58-155	14	25	
Endrin	0.109	0.010	ug/l	0.100		109	57-148	11	25	
Endrin aldehyde	0.0339	0.010	ug/l	0.100		34	45-139	6	25	Q-02
gamma-BHC (Lindane)	0.100	0.010	ug/l	0.100		100	59-129	8	25	
Heptachlor	0.0935	0.010	ug/l	0.100		93	42-136	9	25	
Heptachlor epoxide	0.100	0.010	ug/l	0.100		100	59-134	8	25	
Methoxychlor	0.127	0.010	ug/l	0.100		127	56-167	11	25	
Surr: Decachlorobiphenyl	0.101		ug/l	0.100		101	70-130			
Surr: Tetrachloro-meta-xylene	0.0792		ug/l	0.100		79	70-130			

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W4A0520 - EPA 180.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/14/14 11:24										
Blank (W4A0520-BLK1)										
Turbidity	ND	0.10	NTU							
Analyzed: 01/14/14 11:24										
LCS (W4A0520-BS1)										
Turbidity	11.0	0.10	NTU	11.0		100	90-110			
Analyzed: 01/14/14 11:24										
Duplicate (W4A0520-DUP1)	Source: 4A13062-01									
Turbidity	ND	0.10	NTU		ND					



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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W4A0522 - EPA 140.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Duplicate (W4A0522-DUP1)		Source: 4A14003-01		Analyzed: 01/14/14 11:52						
Threshold Odor Number	2.0	1.0	T.O.N.		2.0			NR	20	

Batch W4A0524 - EPA 351.2

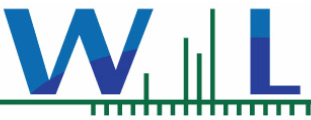
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0524-BLK1)		Analyzed: 01/17/14 17:00								
TKN, Soluble	ND	0.10	mg/l							
Blank (W4A0524-BLK2)		Analyzed: 01/17/14 17:00								
TKN, Soluble	ND	0.10	mg/l							
LCS (W4A0524-BS1)		Analyzed: 01/17/14 17:00								
TKN, Soluble	0.970	0.10	mg/l	1.00		97	90-110			
LCS (W4A0524-BS2)		Analyzed: 01/17/14 17:00								
TKN, Soluble	0.963	0.10	mg/l	1.00		96	90-110			

Batch W4A0533 - SM 2120B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4A0533-BS1)		Analyzed: 01/14/14 13:28								
Color	10.0	3.0	Color Units	10.0		100	95-105			
Duplicate (W4A0533-DUP1)		Source: 4A13077-04		Analyzed: 01/14/14 13:28						
Color	ND	3.0	Color Units		0.00					

Batch W4A0535 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0535-BLK1)		Analyzed: 01/14/14 15:36								
Nitrate as NO3	ND	0.50	mg/l							
NO2+NO3 as N	ND	100	ug/l							
LCS (W4A0535-BS1)		Analyzed: 01/14/14 15:38								
Nitrate as NO3	4.40	0.50	mg/l	4.43		99	90-110			
NO2+NO3 as N	994	100	ug/l	1000		99	90-110			
Matrix Spike (W4A0535-MS1)		Source: 4A13065-02		Analyzed: 01/14/14 15:42						
Nitrate as NO3	39.4	0.50	mg/l	8.86	30.1	104	90-110			
NO2+NO3 as N	8880	100	ug/l	2000	6800	104	90-110			
Matrix Spike (W4A0535-MS2)		Source: 4A13065-03		Analyzed: 01/14/14 19:38						
Nitrate as NO3	38.9	0.50	mg/l	8.86	30.3	97	90-110			
NO2+NO3 as N	8790	100	ug/l	2000	6840	97	90-110			
Matrix Spike Dup (W4A0535-MSD1)		Source: 4A13065-02		Analyzed: 01/14/14 15:44						
Nitrate as NO3	39.3	0.50	mg/l	8.86	30.1	104	90-110	0.06	20	
NO2+NO3 as N	8880	100	ug/l	2000	6800	104	90-110	0.06	20	
Matrix Spike Dup (W4A0535-MSD2)		Source: 4A13065-03		Analyzed: 01/14/14 19:41						
Nitrate as NO3	39.8	0.50	mg/l	8.86	30.3	107	90-110	2	20	



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Batch W4A0535 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup (W4A0535-MSD2)				Source: 4A13065-03		Analyzed: 01/14/14 19:41				
NO2+NO3 as N	8980	100	ug/l	2000	6840	107	90-110	2	20	

Batch W4A0544 - EPA 365.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0544-BLK1)				Analyzed: 01/14/14 15:42						
o-Phosphate as P	ND	0.0020	mg/l							
LCS (W4A0544-BS1)				Analyzed: 01/14/14 15:43						
o-Phosphate as P	0.0503	0.0020	mg/l	0.0500		101	90-110			
Matrix Spike (W4A0544-MS1)				Source: 4A14003-01 Analyzed: 01/14/14 15:50						
o-Phosphate as P	0.0609	0.0020	mg/l	0.0500	0.0117	98	90-110			
Matrix Spike Dup (W4A0544-MSD1)				Source: 4A14003-01 Analyzed: 01/14/14 15:52						
o-Phosphate as P	0.0591	0.0020	mg/l	0.0500	0.0117	95	90-110	3	20	

Batch W4A0545 - SM 5540C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0545-BLK1)				Analyzed: 01/14/14 16:49						
MBAS	ND	0.050	mg/l							
LCS (W4A0545-BS1)				Analyzed: 01/14/14 16:49						
MBAS	0.187	0.050	mg/l	0.200		94	82-115			
Matrix Spike (W4A0545-MS1)				Source: 4A13077-04 Analyzed: 01/14/14 16:49						
MBAS	0.205	0.050	mg/l	0.200	0.0223	91	74-123			
Matrix Spike Dup (W4A0545-MSD1)				Source: 4A13077-04 Analyzed: 01/14/14 16:49						
MBAS	0.209	0.050	mg/l	0.200	0.0223	93	74-123	2	20	

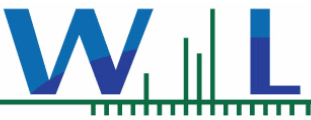
Batch W4A0555 - SM 4500H+-B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4A0555-BS1)				Analyzed: 01/14/14 17:38						
pH	7.34	0.10	Units	7.41		99	98.8-101			
Duplicate (W4A0555-DUP1)				Source: 4A14003-01 Analyzed: 01/14/14 17:38						
pH	7.31	0.10	Units		7.22			1	3.1	

Batch W4A0596 - EPA 350.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0596-BLK1)				Analyzed: 01/17/14 14:26						
Ammonia as N, Dissolved	ND	0.10	mg/l							
LCS (W4A0596-BS1)				Analyzed: 01/17/14 14:26						
Ammonia as N, Dissolved	0.257	0.10	mg/l	0.250		103	90-110			

Batch W4A0644 - SM 2540C M



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Batch W4A0644 - SM 2540C M

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0644-BLK1)				Analyzed: 01/16/14 15:10						
Total Dissolved Solids	ND	10	mg/l							
LCS (W4A0644-BS1)				Analyzed: 01/16/14 15:10						
Total Dissolved Solids	802	10	mg/l	824		97	96-102			
Duplicate (W4A0644-DUP1)				Source: 4A14063-01 Analyzed: 01/16/14 15:10						
Total Dissolved Solids	3150	10	mg/l		3170			0.8	10	

Batch W4A0723 - SM 2320B

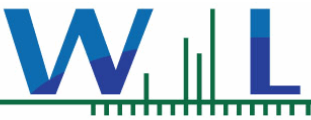
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0723-BLK1)				Analyzed: 01/17/14 16:43						
Alkalinity as CaCO3	ND	2.0	mg/l							
Alkalinity as CaCO3	ND	2.0	mg/l							
Bicarbonate Alkalinity as HCO3	ND	2.0	mg/l							
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l							
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l							
LCS (W4A0723-BS1)				Analyzed: 01/17/14 16:43						
Alkalinity as CaCO3	246	2.0	mg/l	250		98	94-108			
Alkalinity as CaCO3	246	2.0	mg/l	250		98	94-108			
Bicarbonate Alkalinity as HCO3	300	2.0	mg/l	305		98	95-108			
Duplicate (W4A0723-DUP1)				Source: 4A14003-01 Analyzed: 01/17/14 16:43						
Alkalinity as CaCO3	183	2.0	mg/l		185			1	15	
Alkalinity as CaCO3	183	2.0	mg/l		185			1	15	
Bicarbonate Alkalinity as HCO3	223	2.0	mg/l		226			1	15	
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l		ND					
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l		ND					

Batch W4A0809 - EPA 365.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0809-BLK1)				Analyzed: 01/23/14 10:39						
Phosphorus, Dissolved	ND	0.010	mg/l							
LCS (W4A0809-BS1)				Analyzed: 01/23/14 10:40						
Phosphorus, Dissolved	0.0485	0.010	mg/l	0.0500		97	90-110			
Duplicate (W4A0809-DUP1)				Source: 4A14072-01 Analyzed: 01/23/14 10:50						
Phosphorus, Dissolved	ND	0.010	mg/l		0.00300			NR	20	Q-R-01
Matrix Spike (W4A0809-MS1)				Source: 4A14076-04 Analyzed: 01/23/14 10:43						
Phosphorus, Dissolved	0.0622	0.010	mg/l	0.0500	0.0144	96	90-110			
Matrix Spike Dup (W4A0809-MSD1)				Source: 4A14076-04 Analyzed: 01/23/14 10:44						
Phosphorus, Dissolved	0.0630	0.010	mg/l	0.0500	0.0144	97	90-110	1	20	

Batch W4A0928 - SM 2510B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0928-BLK1)				Analyzed: 01/23/14 10:38						



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Batch W4A0928 - SM 2510B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Specific Conductance (EC)	ND	2.0	umhos/cm							
LCS (W4A0928-BS1)				Analyzed: 01/23/14 10:38						
Specific Conductance (EC)	5080	2.0	umhos/cm	5000		102	95-105			
Duplicate (W4A0928-DUP1)				Source: 4A14003-01 Analyzed: 01/23/14 10:38						
Specific Conductance (EC)	7550	2.0	umhos/cm		7780			3	5	

Diquat and Paraquat by EPA 549.2 - Quality Control

Batch W4A0444 - EPA 549.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0444-BLK1)				Analyzed: 01/16/14 15:28						
Diquat	ND	4.0	ug/l							
LCS (W4A0444-BS1)				Analyzed: 01/16/14 15:28						
Diquat	14.9	4.0	ug/l	20.0		74	48-130			
Matrix Spike (W4A0444-MS1)				Source: 4A14004-01 Analyzed: 01/16/14 15:28						
Diquat	12.0	4.0	ug/l	20.0	ND	60	46-122			
Matrix Spike (W4A0444-MS2)				Source: 4A14010-01 Analyzed: 01/16/14 15:28						
Diquat	16.1	4.0	ug/l	20.0	ND	81	46-122			
Matrix Spike Dup (W4A0444-MSD1)				Source: 4A14004-01 Analyzed: 01/16/14 15:28						
Diquat	11.4	4.0	ug/l	20.0	ND	57	46-122	5	30	
Matrix Spike Dup (W4A0444-MSD2)				Source: 4A14010-01 Analyzed: 01/16/14 15:28						
Diquat	16.8	4.0	ug/l	20.0	ND	84	46-122	4	30	

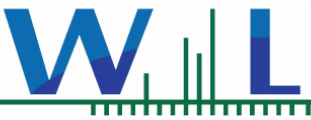
Endothall By EPA 548.1 - Quality Control

Batch W4A0556 - EPA 548.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0556-BLK1)				Analyzed: 01/18/14 18:34						
Endothall	ND	45	ug/l							
LCS (W4A0556-BS1)				Analyzed: 01/18/14 18:47						
Endothall	71.7	45	ug/l	100		72	31-117			
Matrix Spike (W4A0556-MS1)				Source: 4A14010-01 Analyzed: 01/18/14 19:01						
Endothall	68.3	90	ug/l	200	ND	34	0.1-109			
Matrix Spike Dup (W4A0556-MSD1)				Source: 4A14010-01 Analyzed: 01/18/14 19:14						
Endothall	68.4	90	ug/l	200	ND	34	0.1-109	0.2	30	

Fumigants by EPA Method 504.1 - Quality Control

Batch W4A0789 - EPA 504.1



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Fumigants by EPA Method 504.1 - Quality Control

Batch W4A0789 - EPA 504.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0789-BLK1)				Analyzed: 01/22/14 15:25						
1,2-Dibromo-3-chloropropane	ND	0.010	ug/l							
1,2-Dibromoethane (EDB)	ND	0.020	ug/l							
LCS (W4A0789-BS1)				Analyzed: 01/22/14 16:01						
1,2-Dibromo-3-chloropropane	0.0910	0.010	ug/l	0.100		91	70-130			
1,2-Dibromoethane (EDB)	0.0780	0.020	ug/l	0.100		78	70-130			
LCS (W4A0789-BS2)				Analyzed: 01/22/14 16:38						
1,2-Dibromo-3-chloropropane	0.0180	0.010	ug/l	0.0200		90	70-130			
1,2-Dibromoethane (EDB)	0.0160	0.020	ug/l	0.0200		80	70-130			
LCS Dup (W4A0789-BSD1)				Analyzed: 01/22/14 17:08						
1,2-Dibromo-3-chloropropane	0.106	0.010	ug/l	0.100		106	70-130	15	30	
1,2-Dibromoethane (EDB)	0.100	0.020	ug/l	0.100		100	70-130	25	30	

Glyphosate by EPA 547 - Quality Control

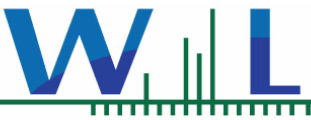
Batch W4A0601 - EPA 547

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0601-BLK1)				Analyzed: 01/15/14 17:04						
Glyphosate	ND	5.0	ug/l							
LCS (W4A0601-BS1)				Analyzed: 01/15/14 17:04						
Glyphosate	19.9	5.0	ug/l	25.0		80	62-130			
Matrix Spike (W4A0601-MS1)				Source: 4A14010-01 Analyzed: 01/15/14 17:04						
Glyphosate	18.4	5.0	ug/l	25.0	ND	74	41-149			
Matrix Spike Dup (W4A0601-MSD1)				Source: 4A14010-01 Analyzed: 01/15/14 17:04						
Glyphosate	17.3	5.0	ug/l	25.0	ND	69	41-149	6	30	

Metals by EPA 200 Series Methods - Quality Control

Batch W4A0592 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0592-BLK1)				Analyzed: 01/17/14 09:21						
Barium, Dissolved	ND	0.0020	mg/l							
Boron, Dissolved	ND	10	ug/l							
Calcium, Dissolved	ND	0.100	mg/l							
Calcium, Total	ND	0.100	mg/l							
Iron, Dissolved	ND	10	ug/l							
Iron, Total	ND	0.010	mg/l							
Magnesium, Dissolved	ND	0.100	mg/l							
Magnesium, Total	ND	0.100	mg/l							
Manganese, Dissolved	ND	5.0	ug/l							



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Metals by EPA 200 Series Methods - Quality Control

Batch W4A0592 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/17/14 09:18										
Blank (W4A0592-BLK1)										
Manganese, Total	ND	0.0050	mg/l							
Potassium, Dissolved	0.301	0.10	mg/l							B-06
Potassium, Total	0.394	0.10	mg/l							B-06
Silica as SiO ₂ , Dissolved	ND	0.10	mg/l							
Sodium, Dissolved	0.854	0.50	mg/l							B-06
Sodium, Total	ND	0.50	mg/l							
Strontium, Dissolved	ND	2.0	ug/l							

LCS (W4A0592-BS1)

Analyzed: 01/17/14 09:16

Barium, Dissolved	0.196	0.0020	mg/l	0.200		98	85-115			
Boron, Dissolved	221	10	ug/l	200		110	85-115			
Calcium, Dissolved	50.8	0.100	mg/l	50.2		101	85-115			
Calcium, Total	50.8	0.100	mg/l	50.2		101	85-115			
Iron, Dissolved	192	10	ug/l	200		96	85-115			
Iron, Total	0.192	0.010	mg/l	0.200		96	85-115			
Magnesium, Dissolved	50.4	0.100	mg/l	50.0		101	85-115			
Magnesium, Total	50.4	0.100	mg/l	50.2		100	85-115			
Manganese, Dissolved	192	5.0	ug/l	200		96	85-115			
Manganese, Total	0.192	0.0050	mg/l	0.200		96	85-115			
Potassium, Dissolved	54.2	0.10	mg/l	52.0		104	85-115			
Potassium, Total	54.2	0.10	mg/l	52.0		104	85-115			
Silica as SiO ₂ , Dissolved	45.8	0.10	mg/l	43.2		106	85-115			
Sodium, Dissolved	83.8	0.50	mg/l	82.6		102	85-115			
Sodium, Total	83.8	0.50	mg/l	82.6		102	85-115			
Strontium, Dissolved	993	2.0	ug/l	1000		99	85-115			

Matrix Spike (W4A0592-MS1)

Source: 4A14064-01

Analyzed: 01/17/14 09:46

Calcium, Total	311	0.100	mg/l	50.2	254	113	70-130			
Iron, Total	3.44	0.010	mg/l	0.200	3.16	140	70-130			MS-02
Magnesium, Total	166	0.100	mg/l	50.2	111	110	70-130			
Manganese, Total	0.557	0.0050	mg/l	0.200	0.344	106	70-130			
Potassium, Total	78.0	0.10	mg/l	52.0	18.8	114	70-130			
Sodium, Total	427	0.50	mg/l	82.6	345	99	70-130			

Matrix Spike Dup (W4A0592-MSD1)

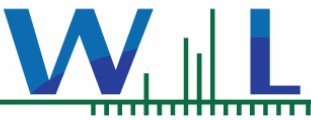
Source: 4A14064-01

Analyzed: 01/17/14 09:49

Calcium, Total	305	0.100	mg/l	50.2	254	100	70-130	2	30	
Iron, Total	3.37	0.010	mg/l	0.200	3.16	108	70-130	2	30	
Magnesium, Total	164	0.100	mg/l	50.2	111	106	70-130	1	30	
Manganese, Total	0.548	0.0050	mg/l	0.200	0.344	102	70-130	2	30	
Potassium, Total	76.6	0.10	mg/l	52.0	18.8	111	70-130	2	30	
Sodium, Total	420	0.50	mg/l	82.6	345	92	70-130	2	30	

Batch W4A0619 - EPA 200.8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/20/14 19:31										
Blank (W4A0619-BLK1)										
Aluminum, Total	ND	5.0	ug/l							



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Metals by EPA 200 Series Methods - Quality Control

Batch W4A0619 - EPA 200.8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0619-BLK1)				Analyzed: 01/20/14 19:31						
Arsenic, Total	ND	0.40	ug/l							
Copper, Total	ND	0.50	ug/l							
Zinc, Total	ND	5.0	ug/l							
LCS (W4A0619-BS1)				Analyzed: 01/20/14 19:23						
Aluminum, Total	55.0	5.0	ug/l	50.0		110	85-115			
Arsenic, Total	52.4	0.40	ug/l	50.0		105	85-115			
Copper, Total	55.0	0.50	ug/l	50.0		110	85-115			
Zinc, Total	55.6	5.0	ug/l	50.0		111	85-115			
Matrix Spike (W4A0619-MS1)				Source: 4A14003-01		Analyzed: 01/20/14 19:55				
Aluminum, Total	148	5.0	ug/l	50.0	46.8	203	70-130			MS-02
Arsenic, Total	57.2	0.40	ug/l	50.0	5.11	104	70-130			
Copper, Total	45.6	0.50	ug/l	50.0	3.36	84	70-130			
Zinc, Total	76.9	5.0	ug/l	50.0	30.9	92	70-130			
Matrix Spike Dup (W4A0619-MSD1)				Source: 4A14003-01		Analyzed: 01/20/14 20:03				
Aluminum, Total	152	5.0	ug/l	50.0	46.8	210	70-130	2	30	MS-02
Arsenic, Total	56.3	0.40	ug/l	50.0	5.11	102	70-130	2	30	
Copper, Total	45.2	0.50	ug/l	50.0	3.36	84	70-130	0.8	30	
Zinc, Total	75.2	5.0	ug/l	50.0	30.9	89	70-130	2	30	

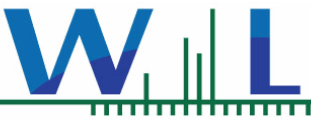
Batch W4B0893 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0893-BLK1)				Analyzed: 02/21/14 10:36						
Lithium, Total	ND	10	ug/l							
LCS (W4B0893-BS1)				Analyzed: 02/21/14 10:38						
Lithium, Total	1060	10	ug/l	1000		106	85-115			
Matrix Spike (W4B0893-MS1)				Source: 3L09093-01		Analyzed: 02/21/14 10:48				
Lithium, Total	1210	20	ug/l	1000	91.2	112	70-130			
Matrix Spike Dup (W4B0893-MSD1)				Source: 3L09093-01		Analyzed: 02/21/14 10:50				
Lithium, Total	1250	20	ug/l	1000	91.2	116	70-130	3	30	

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W4A0574 - EPA 525.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0574-BLK1)				Analyzed: 01/23/14 03:32						
Alachlor	ND	0.10	ug/l							
Atrazine	ND	0.10	ug/l							
Benzo (a) pyrene	ND	0.10	ug/l							
Bis(2-ethylhexyl)adipate	ND	5.0	ug/l							
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/l							



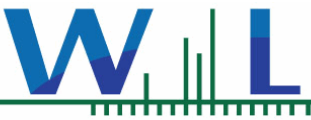
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Date Reported: 03/06/14 09:27

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W4A0574 - EPA 525.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0574-BLK1)										
Analyzed: 01/23/14 03:32										
Bromacil	ND	0.50	ug/l							
Butachlor	ND	0.10	ug/l							
Captan	ND	1.0	ug/l							
Chloroprotham	ND	0.10	ug/l							
Cyanazine	ND	0.10	ug/l							
Diazinon	ND	0.10	ug/l							
Dimethoate	ND	0.20	ug/l							
Diphenamid	ND	0.10	ug/l							
Disulfoton	ND	0.10	ug/l							
EPTC	ND	0.10	ug/l							
Metolachlor	ND	0.10	ug/l							
Metribuzin	ND	0.10	ug/l							
Molinate	ND	0.10	ug/l							
Prometon	ND	0.10	ug/l							
Prometryn	ND	0.10	ug/l							
Simazine	ND	0.10	ug/l							
Terbacil	ND	2.0	ug/l							
Thiobencarb	ND	0.10	ug/l							
Trithion	ND	0.10	ug/l							
Surr: 1,3-Dimethyl-2-nitrobenzene	5.15		ug/l	5.00		103	73-138			
Surr: Perylene-d12	4.11		ug/l	5.00		82	30-118			
Surr: Triphenyl phosphate	5.59		ug/l	5.00		112	70-149			
LCS (W4A0574-BS1)										
Analyzed: 01/23/14 03:57										
Alachlor	3.52	0.10	ug/l	5.00		70	55-124			
Atrazine	5.03	0.10	ug/l	5.00		101	67-131			
Benzo (a) pyrene	4.44	0.10	ug/l	5.00		89	40-147			
Bis(2-ethylhexyl)adipate	7.42	5.0	ug/l	5.00		148	71-158			
Bis(2-ethylhexyl)phthalate	7.36	3.0	ug/l	5.00		147	68-154			
Bromacil	3.71	0.50	ug/l	5.00		74	62-139			
Butachlor	3.91	0.10	ug/l	5.00		78	61-127			
Captan	5.69	1.0	ug/l	5.00		114	14-159			
Chloroprotham	5.35	0.10	ug/l	5.00		107	77-143			
Cyanazine	5.55	0.10	ug/l	5.00		111	61-129			
Diazinon	3.13	0.10	ug/l	5.00		63	30-120			
Dimethoate	3.52	0.20	ug/l	5.00		70	38-102			
Diphenamid	5.43	0.10	ug/l	5.00		109	77-124			
Disulfoton	4.47	0.10	ug/l	5.00		89	54-156			
EPTC	4.84	0.10	ug/l	5.00		97	82-116			
Metolachlor	3.72	0.10	ug/l	5.00		74	61-123			
Metribuzin	4.01	0.10	ug/l	5.00		80	50-121			
Molinate	4.99	0.10	ug/l	5.00		100	82-117			
Prometon	2.63	0.10	ug/l	5.00		53	17-101			
Prometryn	3.98	0.10	ug/l	5.00		80	57-122			
Simazine	3.54	0.10	ug/l	5.00		71	53-116			



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Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W4A0574 - EPA 525.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/23/14 03:57										
LCS (W4A0574-BS1)										
Terbacil	5.14	2.0	ug/l	5.00		103	70-135			
Thiobencarb	3.69	0.10	ug/l	5.00		74	56-125			
Trithion	4.44	0.10	ug/l	5.00		89	60-124			
Surr: 1,3-Dimethyl-2-nitrobenzene	4.92		ug/l	5.00		98	73-138			
Surr: Perylene-d12	9.45		ug/l	5.00		189	30-118			S-11
Surr: Triphenyl phosphate	6.75		ug/l	5.00		135	70-149			

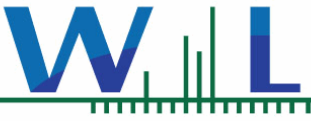
LCS Dup (W4A0574-BSD1)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/23/14 04:22										
Alachlor	3.76	0.10	ug/l	5.00		75	55-124	7	30	
Atrazine	5.39	0.10	ug/l	5.00		108	67-131	7	30	
Benzo (a) pyrene	4.25	0.10	ug/l	5.00		85	40-147	4	30	
Bis(2-ethylhexyl)adipate	7.00	5.0	ug/l	5.00		140	71-158	6	30	
Bis(2-ethylhexyl)phthalate	6.92	3.0	ug/l	5.00		138	68-154	6	30	
Bromacil	4.13	0.50	ug/l	5.00		83	62-139	11	30	
Butachlor	4.26	0.10	ug/l	5.00		85	61-127	9	30	
Captan	5.70	1.0	ug/l	5.00		114	14-159	0.2	30	
Chloroprotham	5.69	0.10	ug/l	5.00		114	77-143	6	30	
Cyanazine	5.83	0.10	ug/l	5.00		117	61-129	5	30	
Diazinon	3.46	0.10	ug/l	5.00		69	30-120	10	30	
Dimethoate	4.04	0.20	ug/l	5.00		81	38-102	14	30	
Diphenamid	5.74	0.10	ug/l	5.00		115	77-124	6	30	
Disulfoton	4.75	0.10	ug/l	5.00		95	54-156	6	30	
EPTC	5.09	0.10	ug/l	5.00		102	82-116	5	30	
Metolachlor	4.15	0.10	ug/l	5.00		83	61-123	11	30	
Metribuzin	4.32	0.10	ug/l	5.00		86	50-121	7	30	
Molinate	5.40	0.10	ug/l	5.00		108	82-117	8	30	
Prometon	2.65	0.10	ug/l	5.00		53	17-101	0.8	30	
Prometryn	4.01	0.10	ug/l	5.00		80	57-122	0.8	30	
Simazine	3.91	0.10	ug/l	5.00		78	53-116	10	30	
Terbacil	5.39	2.0	ug/l	5.00		108	70-135	5	30	
Thiobencarb	3.95	0.10	ug/l	5.00		79	56-125	7	30	
Trithion	4.92	0.10	ug/l	5.00		98	60-124	10	30	
Surr: 1,3-Dimethyl-2-nitrobenzene	5.10		ug/l	5.00		102	73-138			
Surr: Perylene-d12	9.13		ug/l	5.00		183	30-118			S-11
Surr: Triphenyl phosphate	6.62		ug/l	5.00		132	70-149			

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4A0558 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/15/14 17:33										
Blank (W4A0558-BLK1)										
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l							
1,1,1-Trichloroethane	ND	0.50	ug/l							



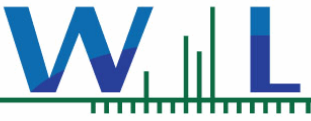
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Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4A0558 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0558-BLK1)				Analyzed: 01/15/14 17:33						
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l							
1,1,2-Trichloroethane	ND	0.50	ug/l							
1,1-Dichloroethane	ND	0.50	ug/l							
1,1-Dichloroethene	ND	0.50	ug/l							
1,1-Dichloropropene	ND	0.50	ug/l							
1,2,3-Trichlorobenzene	ND	0.50	ug/l							
1,2,3-Trichloropropane	ND	0.50	ug/l							
1,2,4-Trichlorobenzene	ND	0.50	ug/l							
1,2,4-Trimethylbenzene	ND	0.50	ug/l							
1,2-Dichloroethane	ND	0.50	ug/l							
1,2-Dichloropropane	ND	0.50	ug/l							
1,3,5-Trimethylbenzene	ND	0.50	ug/l							
1,3-Dichloropropane	ND	0.50	ug/l							
1,3-Dichloropropene, Total	ND	0.50	ug/l							
2,2-Dichloropropane	ND	0.50	ug/l							
2-Butanone	ND	5.0	ug/l							
2-Chloroethyl vinyl ether	ND	1.0	ug/l							
2-Chlorotoluene	ND	0.50	ug/l							
2-Hexanone	ND	5.0	ug/l							
4-Chlorotoluene	ND	0.50	ug/l							
4-Methyl-2-pentanone	ND	5.0	ug/l							
Benzene	ND	0.50	ug/l							
Bromobenzene	ND	0.50	ug/l							
Bromochloromethane	ND	0.50	ug/l							
Bromodichloromethane	ND	0.50	ug/l							
Bromoform	ND	0.50	ug/l							
Bromomethane	ND	0.50	ug/l							
Carbon tetrachloride	ND	0.50	ug/l							
Chlorobenzene	ND	0.50	ug/l							
Chloroethane	ND	0.50	ug/l							
Chloroform	ND	0.50	ug/l							
Chloromethane	ND	0.50	ug/l							
cis-1,2-Dichloroethene	ND	0.50	ug/l							
cis-1,3-Dichloropropene	ND	0.50	ug/l							
Dibromochloromethane	ND	0.50	ug/l							
Dibromomethane	ND	0.50	ug/l							
Dichlorodifluoromethane (Freon 12)	ND	0.50	ug/l							
Di-isopropyl ether	ND	2.0	ug/l							
Ethyl tert-butyl ether	ND	2.0	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Freon 113	ND	5.0	ug/l							
Hexachlorobutadiene	ND	0.50	ug/l							
Isopropylbenzene	ND	0.50	ug/l							
m,p-Xylene	ND	0.50	ug/l							



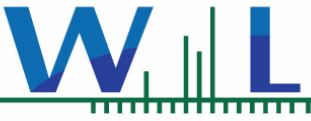
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Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4A0558 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0558-BLK1)										
Analyzed: 01/15/14 17:33										
m-Dichlorobenzene	ND	0.50	ug/l							
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/l							
Methylene chloride	ND	0.50	ug/l							
Naphthalene	ND	0.50	ug/l							
n-Butylbenzene	ND	0.50	ug/l							
n-Propylbenzene	ND	0.50	ug/l							
o-Dichlorobenzene	ND	0.50	ug/l							
o-Xylene	ND	0.50	ug/l							
p-Dichlorobenzene	ND	0.50	ug/l							
p-Isopropyltoluene	ND	0.50	ug/l							
sec-Butylbenzene	ND	0.50	ug/l							
Styrene	ND	0.50	ug/l							
Tert-amyl methyl ether	ND	2.0	ug/l							
tert-Butylbenzene	ND	0.50	ug/l							
Tetrachloroethene	ND	0.50	ug/l							
THMs, Total	ND	2.0	ug/l							
Toluene	ND	0.50	ug/l							
trans-1,2-Dichloroethene	ND	0.50	ug/l							
trans-1,3-Dichloropropene	ND	0.50	ug/l							
Trichloroethene	ND	0.50	ug/l							
Trichlorofluoromethane	ND	0.50	ug/l							
Vinyl chloride	ND	0.50	ug/l							
Xylenes, Total	ND	1.0	ug/l							
Surr: 1,2-Dichlorobenzene-d4	10.1		ug/l	10.0		101	70-130			
Surr: 4-Bromofluorobenzene	8.88		ug/l	10.0		89	70-130			
LCS (W4A0558-BS1)										
Analyzed: 01/15/14 15:18										
1,1,1,2-Tetrachloroethane	5.90	0.50	ug/l	6.00		98	70-130			
1,1,1-Trichloroethane	6.00	0.50	ug/l	6.00		100	70-130			
1,1,1,2-Tetrachloroethane	5.87	0.50	ug/l	6.00		98	70-130			
1,1,2-Trichloroethane	6.19	0.50	ug/l	6.00		103	70-130			
1,1-Dichloroethane	6.07	0.50	ug/l	6.00		101	70-130			
1,1-Dichloroethene	6.33	0.50	ug/l	6.00		106	70-130			
1,1-Dichloropropene	5.49	0.50	ug/l	6.00		92	70-130			
1,2,3-Trichlorobenzene	5.45	0.50	ug/l	6.00		91	70-130			
1,2,3-Trichloropropane	5.78	0.50	ug/l	6.00		96	70-130			
1,2,4-Trichlorobenzene	5.47	0.50	ug/l	6.00		91	70-130			
1,2,4-Trimethylbenzene	6.19	0.50	ug/l	6.00		103	70-130			
1,2-Dichloroethane	5.97	0.50	ug/l	6.00		100	70-130			
1,2-Dichloropropane	5.37	0.50	ug/l	6.00		90	70-130			
1,3,5-Trimethylbenzene	6.52	0.50	ug/l	6.00		109	70-130			
1,3-Dichloropropane	5.43	0.50	ug/l	6.00		90	70-130			
2,2-Dichloropropane	6.32	0.50	ug/l	6.00		105	70-130			
2-Butanone	5.62	5.0	ug/l	6.00		94	70-130			
2-Chloroethyl vinyl ether	5.57	1.0	ug/l	6.00		93	70-130			



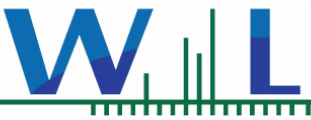
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P.O. BOX 951
Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:27

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4A0558 - EPA 524.2

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
LCS (W4A0558-BS1)		Analyzed: 01/15/14 15:18								
2-Chlorotoluene	5.97	0.50	ug/l	6.00		100	70-130			
2-Hexanone	5.72	5.0	ug/l	6.00		95	70-130			
4-Chlorotoluene	5.53	0.50	ug/l	6.00		92	70-130			
4-Methyl-2-pentanone	5.84	5.0	ug/l	6.00		97	70-130			
Benzene	6.49	0.50	ug/l	6.00		108	70-130			
Bromobenzene	6.24	0.50	ug/l	6.00		104	70-130			
Bromochloromethane	6.19	0.50	ug/l	6.00		103	70-130			
Bromodichloromethane	5.62	0.50	ug/l	6.00		94	70-130			
Bromoform	5.38	0.50	ug/l	6.00		90	70-130			
Bromomethane	6.79	0.50	ug/l	6.00		113	70-130			
Carbon tetrachloride	5.87	0.50	ug/l	6.00		98	70-130			
Chlorobenzene	6.42	0.50	ug/l	6.00		107	70-130			
Chloroethane	6.51	0.50	ug/l	6.00		108	70-130			
Chloroform	6.18	0.50	ug/l	6.00		103	70-130			
Chloromethane	6.30	0.50	ug/l	6.00		105	70-130			
cis-1,2-Dichloroethene	6.35	0.50	ug/l	6.00		106	70-130			
cis-1,3-Dichloropropene	5.20	0.50	ug/l	6.00		87	70-130			
Dibromochloromethane	5.63	0.50	ug/l	6.00		94	70-130			
Dibromomethane	5.90	0.50	ug/l	6.00		98	70-130			
Dichlorodifluoromethane (Freon 12)	6.62	0.50	ug/l	6.00		110	70-130			
Di-isopropyl ether	5.82	2.0	ug/l	6.00		97	70-130			
Ethyl tert-butyl ether	6.29	2.0	ug/l	6.00		105	70-130			
Ethylbenzene	6.40	0.50	ug/l	6.00		107	70-130			
Freon 113	6.04	5.0	ug/l	6.00		101	70-130			
Hexachlorobutadiene	6.42	0.50	ug/l	6.00		107	70-130			
Isopropylbenzene	5.77	0.50	ug/l	6.00		96	70-130			
m,p-Xylene	6.36	0.50	ug/l	6.00		106	70-130			
m-Dichlorobenzene	6.40	0.50	ug/l	6.00		107	70-130			
Methyl tert-butyl ether (MTBE)	6.06	2.0	ug/l	6.00		101	70-130			
Methylene chloride	6.11	0.50	ug/l	6.00		102	70-130			
Naphthalene	5.17	0.50	ug/l	6.00		86	70-130			
n-Butylbenzene	5.52	0.50	ug/l	6.00		92	70-130			
n-Propylbenzene	5.78	0.50	ug/l	6.00		96	70-130			
o-Dichlorobenzene	6.15	0.50	ug/l	6.00		102	70-130			
o-Xylene	6.69	0.50	ug/l	6.00		112	70-130			
p-Dichlorobenzene	6.01	0.50	ug/l	6.00		100	70-130			
p-Isopropyltoluene	5.42	0.50	ug/l	6.00		90	70-130			
sec-Butylbenzene	5.20	0.50	ug/l	6.00		87	70-130			
Styrene	6.39	0.50	ug/l	6.00		106	70-130			
Tert-amyl methyl ether	5.86	2.0	ug/l	6.00		98	70-130			
tert-Butylbenzene	5.14	0.50	ug/l	6.00		86	70-130			
Tetrachloroethene	6.31	0.50	ug/l	6.00		105	70-130			
Toluene	6.47	0.50	ug/l	6.00		108	70-130			
trans-1,2-Dichloroethene	6.41	0.50	ug/l	6.00		107	70-130			



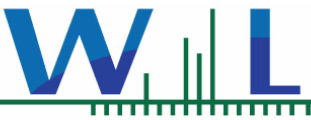
California American Water-Monterey
 P.O.BOX 951
 Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
 Date Reported: 03/06/14 09:27

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4A0558 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4A0558-BS1)				Analyzed: 01/15/14 15:18						
trans-1,3-Dichloropropene	5.04	0.50	ug/l	6.00		84	70-130			
Trichloroethene	6.28	0.50	ug/l	6.00		105	70-130			
Trichlorofluoromethane	6.36	0.50	ug/l	6.00		106	70-130			
Vinyl chloride	6.19	0.50	ug/l	6.00		103	70-130			
Surr: 1,2-Dichlorobenzene-d4	17.1		ug/l	10.0		171	70-130			S-BS
Surr: 4-Bromofluorobenzene	12.1		ug/l	10.0		121	70-130			
LCS Dup (W4A0558-BSD1)				Analyzed: 01/15/14 15:51						
1,1,1,2-Tetrachloroethane	5.74	0.50	ug/l	6.00		96	70-130	3	30	
1,1,1-Trichloroethane	5.77	0.50	ug/l	6.00		96	70-130	4	30	
1,1,2,2-Tetrachloroethane	5.68	0.50	ug/l	6.00		95	70-130	3	30	
1,1,2-Trichloroethane	5.89	0.50	ug/l	6.00		98	70-130	5	30	
1,1-Dichloroethane	5.92	0.50	ug/l	6.00		99	70-130	3	30	
1,1-Dichloroethene	6.27	0.50	ug/l	6.00		104	70-130	1	30	
1,1-Dichloropropene	5.36	0.50	ug/l	6.00		89	70-130	2	30	
1,2,3-Trichlorobenzene	5.37	0.50	ug/l	6.00		90	70-130	1	30	
1,2,3-Trichloropropane	5.35	0.50	ug/l	6.00		89	70-130	8	30	
1,2,4-Trichlorobenzene	5.31	0.50	ug/l	6.00		88	70-130	3	30	
1,2,4-Trimethylbenzene	6.17	0.50	ug/l	6.00		103	70-130	0.3	30	
1,2-Dichloroethane	5.91	0.50	ug/l	6.00		98	70-130	1	30	
1,2-Dichloropropane	5.32	0.50	ug/l	6.00		89	70-130	0.9	30	
1,3,5-Trimethylbenzene	6.13	0.50	ug/l	6.00		102	70-130	6	30	
1,3-Dichloropropane	5.31	0.50	ug/l	6.00		88	70-130	2	30	
2,2-Dichloropropane	6.04	0.50	ug/l	6.00		101	70-130	5	30	
2-Butanone	5.49	5.0	ug/l	6.00		92	70-130	2	30	
2-Chloroethyl vinyl ether	5.40	1.0	ug/l	6.00		90	70-130	3	30	
2-Chlorotoluene	5.46	0.50	ug/l	6.00		91	70-130	9	30	
2-Hexanone	5.65	5.0	ug/l	6.00		94	70-130	1	30	
4-Chlorotoluene	5.32	0.50	ug/l	6.00		89	70-130	4	30	
4-Methyl-2-pentanone	5.84	5.0	ug/l	6.00		97	70-130	NR	30	
Benzene	6.28	0.50	ug/l	6.00		105	70-130	3	30	
Bromobenzene	5.55	0.50	ug/l	6.00		92	70-130	12	30	
Bromochloromethane	6.11	0.50	ug/l	6.00		102	70-130	1	30	
Bromodichloromethane	5.47	0.50	ug/l	6.00		91	70-130	3	30	
Bromoform	5.31	0.50	ug/l	6.00		88	70-130	1	30	
Bromomethane	6.89	0.50	ug/l	6.00		115	70-130	1	30	
Carbon tetrachloride	5.74	0.50	ug/l	6.00		96	70-130	2	30	
Chlorobenzene	6.27	0.50	ug/l	6.00		104	70-130	2	30	
Chloroethane	6.24	0.50	ug/l	6.00		104	70-130	4	30	
Chloroform	5.99	0.50	ug/l	6.00		100	70-130	3	30	
Chloromethane	6.40	0.50	ug/l	6.00		107	70-130	2	30	
cis-1,2-Dichloroethene	6.21	0.50	ug/l	6.00		104	70-130	2	30	
cis-1,3-Dichloropropene	5.12	0.50	ug/l	6.00		85	70-130	2	30	
Dibromochloromethane	5.45	0.50	ug/l	6.00		91	70-130	3	30	
Dibromomethane	5.84	0.50	ug/l	6.00		97	70-130	1	30	



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Volatile Organic Compounds by EPA Method 524.2 - Quality Control

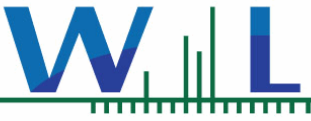
Batch W4A0558 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/15/14 15:51										
LCS Dup (W4A0558-BSD1)										
Dichlorodifluoromethane (Freon 12)	6.25	0.50	ug/l	6.00		104	70-130	6	30	
Di-isopropyl ether	5.81	2.0	ug/l	6.00		97	70-130	0.2	30	
Ethyl tert-butyl ether	6.30	2.0	ug/l	6.00		105	70-130	0.2	30	
Ethylbenzene	6.28	0.50	ug/l	6.00		105	70-130	2	30	
Freon 113	5.85	5.0	ug/l	6.00		98	70-130	3	30	
Hexachlorobutadiene	6.16	0.50	ug/l	6.00		103	70-130	4	30	
Isopropylbenzene	5.41	0.50	ug/l	6.00		90	70-130	6	30	
m,p-Xylene	6.18	0.50	ug/l	6.00		103	70-130	3	30	
m-Dichlorobenzene	6.36	0.50	ug/l	6.00		106	70-130	0.6	30	
Methyl tert-butyl ether (MTBE)	6.22	2.0	ug/l	6.00		104	70-130	3	30	
Methylene chloride	5.92	0.50	ug/l	6.00		99	70-130	3	30	
Naphthalene	5.05	0.50	ug/l	6.00		84	70-130	2	30	
n-Butylbenzene	5.41	0.50	ug/l	6.00		90	70-130	2	30	
n-Propylbenzene	5.22	0.50	ug/l	6.00		87	70-130	10	30	
o-Dichlorobenzene	6.01	0.50	ug/l	6.00		100	70-130	2	30	
o-Xylene	6.46	0.50	ug/l	6.00		108	70-130	3	30	
p-Dichlorobenzene	6.08	0.50	ug/l	6.00		101	70-130	1	30	
p-Isopropyltoluene	5.42	0.50	ug/l	6.00		90	70-130	NR	30	
sec-Butylbenzene	5.26	0.50	ug/l	6.00		88	70-130	1	30	
Styrene	6.22	0.50	ug/l	6.00		104	70-130	3	30	
Tert-amyl methyl ether	5.92	2.0	ug/l	6.00		99	70-130	1	30	
tert-Butylbenzene	4.72	0.50	ug/l	6.00		79	70-130	9	30	
Tetrachloroethene	6.15	0.50	ug/l	6.00		102	70-130	3	30	
Toluene	6.29	0.50	ug/l	6.00		105	70-130	3	30	
trans-1,2-Dichloroethene	6.24	0.50	ug/l	6.00		104	70-130	3	30	
trans-1,3-Dichloropropene	4.92	0.50	ug/l	6.00		82	70-130	2	30	
Trichloroethene	6.05	0.50	ug/l	6.00		101	70-130	4	30	
Trichlorofluoromethane	6.16	0.50	ug/l	6.00		103	70-130	3	30	
Vinyl chloride	6.01	0.50	ug/l	6.00		100	70-130	3	30	
Surr: 1,2-Dichlorobenzene-d4	17.4		ug/l	10.0		174	70-130			S-BS
Surr: 4-Bromofluorobenzene	11.2		ug/l	10.0		112	70-130			

EPA 1613B mod. - Quality Control

Batch 3522182 - EPA 1613B mod.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 02/26/14 00:00										
Blank (3522182-BLK)										
2,3,7,8-Tetra CDD	ND	4.2	pg/L			NR	-			S_MAXX
Surr: 37CL4 2378 Tetra CDD	288		pg/L	200		144	40-130			A3826, A1, S_MAXX
Surr: C13-2378 TetraCDD	274		pg/L	200		137	24-164			S_MAXX
Analyzed: 02/26/14 00:00										
LCS (3522182-LCS)										



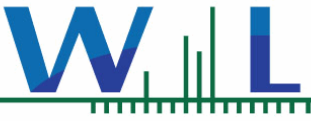
California American Water-Monterey
 P.O.BOX 951
 Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:27

EPA 1613B mod. - Quality Control

Batch 3522182 - EPA 1613B mod.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (3522182-LCS)				Analyzed: 02/26/14 00:00						
2,3,7,8-Tetra CDD	194	4.2	pg/L	200		97	67-158			S_MAXX
<i>Surr: 37CL4 2378 Tetra CDD</i>	166		pg/L	200		83	40-130			S_MAXX
<i>Surr: C13-2378 TetraCDD</i>	232		pg/L	200		116	24-164			S_MAXX
LCS Dup (3522182-LCS Dup)				Analyzed: 02/26/14 00:00						
2,3,7,8-Tetra CDD	200	4.2	pg/L	200		100	67-158	2.7	25	S_MAXX
<i>Surr: 37CL4 2378 Tetra CDD</i>	170		pg/L	200		85	40-130			S_MAXX
<i>Surr: C13-2378 TetraCDD</i>	242		pg/L	200		121	24-164			S_MAXX

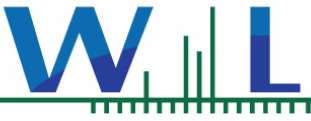


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Notes and Definitions

- MS-05** The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- *** The recommended holding time for this analysis is only 15 minutes. The sample was analyzed as soon as it was possible but it was received and analyzed past holding time.
- **** The recommended holding time for field filtering is only 15 minutes. The sample was filtered as soon as possible but it was filtered past holding time. However, the sample was analyzed within holding time.
- A-01** Analysis subcontracted to Pace Analytical Services, Inc. NELAP Certificate 04222CA
- A1** Exceedence
- A3826** Recovery of clean-up spike meets 1613 method criteria range of 42-164%
- B-06** This analyte was found in the method blank, which was possibly contaminated during sample preparation. The batch was accepted since this analyte was either not detected or more than 10 times of the blank value for all the samples in the batch.
- S_MAXX** [Undefined]
- MS-02** The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
- S-GC** Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate.
- O-09** This sample was received with the EPA recommended holding time expired.
- O-14** This analysis was requested by the client after the holding time was exceeded.
- Q-02** Low recovery of this analyte in the QC sample. The analysis of the low level standard produced acceptable recovery indicating that the sample result might be accurately reported as Not Detected.
- Q-R-01** Analyses are not controlled on RPD values from sample concentrations less than the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- S_MAXX** Analysis subcontracted to Maxxam Analytical, Inc. NELAP Certificate 02106A
- S-11** Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
- S-BS** Surrogate recovery outside of control limits for LCS. The data was accepted based on valid recovery of the target analytes.
- M-05** Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.



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- ND** NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
- NR** Not Reportable
- Dil** Dilution
- dry** Sample results reported on a dry weight basis
- RPD** Relative Percent Difference
- % Rec** Percent Recovery
- Sub** Subcontracted analysis, original report available upon request
- MDL** Method Detection Limit
- MDA** Minimum Detectable Activity
- MRL** Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

CERTIFICATE OF ANALYSIS

Client: California American Water-Monterey P.O.BOX 951 Monterey CA, 93942-0951	Report Date: 03/06/14 09:25
Attention: Travis Peterson	Received Date: 01/14/14 09:15
Phone: (831) 646-3269	Turn Around: Normal
Fax: -	Client Project: Monterey Peninsula Water Supply Project (MPWSP)
Work Order(s): 4A14003	

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Travis Peterson :

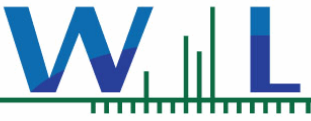
Enclosed are the results of analyses for samples received 01/14/14 09:15 with the Chain of Custody document. The samples were received in good condition, at 2.6 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Hai Van Nguyen
Project Manager





California American Water-Monterey
P.O.BOX 951
Monterey CA, 93942-0951

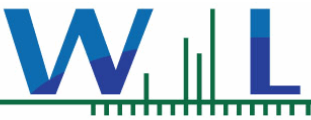
Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
ML-3 Zone # 2 (103-113 ftbgs)	Nathan Reynolds		4A14003-01	Water	01/13/14 11:45

ANALYSES

- Anions by IC, EPA Method 300.0/300.1/326
- Carbamates and Urea Pesticides
- Chlorinated Herbicides
- Chlorinated Pesticides and/or PCBs
- Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods
- Diquat and Paraquat by EPA 549.2
- Endothall By EPA 548.1
- EPA 1613B mod.
- Fumigants by EPA Method 504.1
- Glyphosate by EPA 547
- Metals by EPA 200 Series Methods
- Semivolatile Organic Compounds by GC/MS
- Subcontracted Analyses
- Volatile Organic Compounds by EPA Method 524.2



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Date Received: 01/14/14 09:15
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4A14003-01 ML-3 Zone # 2 (103-113 ftbgs)

Sampled: 01/13/14 11:45

Sampled By: Nathan Reynolds

Matrix: Water

Anions by IC, EPA Method 300.0/300.1/326

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chloride, Total	2300	50	mg/l	100	01/14/14 20:52	
Fluoride, Total	ND	1.0	mg/l	10	01/14/14 20:52	M-05
Sulfate as SO4	190	5.0	mg/l	10	01/14/14 20:52	

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Bromide	7700	250	ug/l	25	01/21/14 15:14	
Surr: Dichloroacetate	101 %	Conc:505	90-115	%		

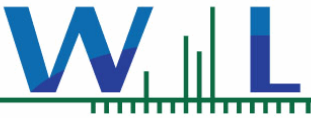
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Iodide, Dissolved	200	50	ug/l	5	02/20/14 15:41	O-14

Carbamates and Urea Pesticides

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
3-Hydroxycarbofuran	ND	2.0	ug/l	1	01/20/14 23:50	
Aldicarb	ND	2.0	ug/l	1	01/20/14 23:50	
Aldicarb sulfone	ND	2.0	ug/l	1	01/20/14 23:50	
Aldicarb sulfoxide	ND	2.0	ug/l	1	01/20/14 23:50	
Carbaryl	ND	2.0	ug/l	1	01/20/14 23:50	
Carbofuran	ND	2.0	ug/l	1	01/20/14 23:50	
Methiocarb	ND	2.0	ug/l	1	01/20/14 23:50	
Methomyl	ND	2.0	ug/l	1	01/20/14 23:50	
Oxamyl	ND	2.0	ug/l	1	01/20/14 23:50	
Propoxur (Baygon)	ND	2.0	ug/l	1	01/20/14 23:50	

Chlorinated Herbicides

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
2,4,5-T	ND	0.20	ug/l	1	01/25/14 02:55	
2,4,5-TP (Silvex)	ND	0.20	ug/l	1	01/25/14 02:55	
2,4-D	ND	0.40	ug/l	1	01/25/14 02:55	
2,4-DB	ND	2.0	ug/l	1	01/25/14 02:55	
3,5-Dichlorobenzoic acid	ND	1.0	ug/l	1	01/25/14 02:55	
Acifluorfen	ND	0.40	ug/l	1	01/25/14 02:55	
Bentazon	ND	2.0	ug/l	1	01/25/14 02:55	
Dalapon	ND	0.40	ug/l	1	01/25/14 02:55	
DCPA	ND	0.10	ug/l	1	01/25/14 02:55	
Dicamba	ND	0.60	ug/l	1	01/25/14 02:55	



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Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:25

4A14003-01 ML-3 Zone # 2 (103-113 ftbgs)

Sampled: 01/13/14 11:45

Sampled By: Nathan Reynolds

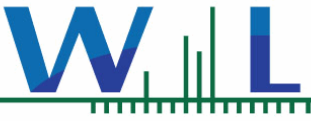
Matrix: Water

Chlorinated Herbicides

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 515.3	Batch: W4A0564	Prepared: 01/15/14 08:23	Analyst: mxw			
Dichloroprop	ND	0.30	ug/l	1	01/25/14 02:55	
Dinoseb	ND	0.40	ug/l	1	01/25/14 02:55	
Pentachlorophenol	ND	0.20	ug/l	1	01/25/14 02:55	
Picloram	ND	0.60	ug/l	1	01/25/14 02:55	
Surr: 2,4-DCAA	100 %	Conc:9.96	70-130	%		

Chlorinated Pesticides and/or PCBs

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 508	Batch: W4A0617	Prepared: 01/16/14 08:43	Analyst: mxw			
4,4'-DDD	ND	0.010	ug/l	1	01/29/14 21:51	
4,4'-DDE	ND	0.010	ug/l	1	01/29/14 21:51	
4,4'-DDT	ND	0.010	ug/l	1	01/29/14 21:51	
Aldrin	ND	0.010	ug/l	1	01/29/14 21:51	
alpha-BHC	ND	0.010	ug/l	1	01/29/14 21:51	
Aroclor 1016	ND	0.10	ug/l	1	01/29/14 21:51	
Aroclor 1221	ND	0.10	ug/l	1	01/29/14 21:51	
Aroclor 1232	ND	0.10	ug/l	1	01/29/14 21:51	
Aroclor 1242	ND	0.10	ug/l	1	01/29/14 21:51	
Aroclor 1248	ND	0.10	ug/l	1	01/29/14 21:51	
Aroclor 1254	ND	0.10	ug/l	1	01/29/14 21:51	
Aroclor 1260	ND	0.10	ug/l	1	01/29/14 21:51	
beta-BHC	ND	0.010	ug/l	1	01/29/14 21:51	
Chlordane (tech)	ND	0.10	ug/l	1	01/29/14 21:51	
Chlorothalonil	ND	0.050	ug/l	1	01/29/14 21:51	
delta-BHC	ND	0.010	ug/l	1	01/29/14 21:51	
Dieldrin	ND	0.010	ug/l	1	01/29/14 21:51	
Endosulfan I	ND	0.010	ug/l	1	01/29/14 21:51	
Endosulfan II	ND	0.010	ug/l	1	01/29/14 21:51	
Endosulfan sulfate	ND	0.010	ug/l	1	01/29/14 21:51	
Endrin	ND	0.010	ug/l	1	01/29/14 21:51	
Endrin aldehyde	ND	0.010	ug/l	1	01/29/14 21:51	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	01/29/14 21:51	
Heptachlor	ND	0.010	ug/l	1	01/29/14 21:51	
Heptachlor epoxide	ND	0.010	ug/l	1	01/29/14 21:51	
Hexachlorobenzene	ND	0.010	ug/l	1	01/29/14 21:51	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	01/29/14 21:51	
Methoxychlor	ND	0.010	ug/l	1	01/29/14 21:51	
PCBs, Total	ND	0.50	ug/l	1	01/29/14 21:51	
Propachlor	ND	0.050	ug/l	1	01/29/14 21:51	
Toxaphene	ND	1.0	ug/l	1	01/29/14 21:51	



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4A14003-01 ML-3 Zone # 2 (103-113 ftbgs)

Sampled: 01/13/14 11:45

Sampled By: Nathan Reynolds

Matrix: Water

Chlorinated Pesticides and/or PCBs

Method: EPA 508	Batch: W4A0617	Prepared: 01/16/14 08:43	Analyst: mxw
Analyte	Result	MRL	Units Dil Analyzed Qualifier
Trifluralin	ND	0.010	ug/l 1 01/29/14 21:51
Surr: Decachlorobiphenyl	30 %	Conc:0.0295	70-130 % S-GC
Surr: Tetrachloro-meta-xylene	104 %	Conc:0.104	70-130 %

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 140.1	Batch: W4A0522	Prepared: 01/14/14 11:32	Analyst: nra
Analyte	Result	MRL	Units Dil Analyzed Qualifier
Threshold Odor Number	2.0	1.0	T.O.N. 2 01/14/14 11:52

Method: EPA 180.1	Batch: W4A0520	Prepared: 01/14/14 10:53	Analyst: nra
Analyte	Result	MRL	Units Dil Analyzed Qualifier
Turbidity	11	0.10	NTU 1 01/14/14 11:24

Method: EPA 350.1	Batch: W4A0596	Prepared: 01/15/14 14:35	Analyst: rjs
Analyte	Result	MRL	Units Dil Analyzed Qualifier
Ammonia as N, Dissolved	1.7	0.20	mg/l 2 01/17/14 14:26

Method: EPA 351.2	Batch: W4A0524	Prepared: 01/14/14 12:34	Analyst: rjs
Analyte	Result	MRL	Units Dil Analyzed Qualifier
TKN, Soluble	1.6	0.10	mg/l 1 01/17/14 17:00

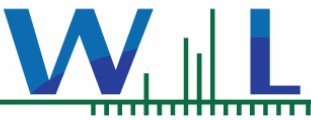
Method: EPA 353.2	Batch: W4A0535	Prepared: 01/14/14 13:08	Analyst: MBC
Analyte	Result	MRL	Units Dil Analyzed Qualifier
Nitrate as NO3	ND	0.50	mg/l 1 01/14/14 16:06
NO2+NO3 as N	ND	100	ug/l 1 01/14/14 16:06

Method: EPA 365.1	Batch: W4A0544	Prepared: 01/14/14 14:48	Analyst: htl
Analyte	Result	MRL	Units Dil Analyzed Qualifier
o-Phosphate as P	0.012	0.0020	mg/l 1 01/14/14 15:45 **

Method: EPA 365.1	Batch: W4A0809	Prepared: 01/20/14 14:19	Analyst: htl
Analyte	Result	MRL	Units Dil Analyzed Qualifier
Phosphorus, Dissolved	0.20	0.020	mg/l 2 01/23/14 10:57

Method: SM 2120B	Batch: W4A0533	Prepared: 01/14/14 13:03	Analyst: nra
Analyte	Result	MRL	Units Dil Analyzed Qualifier
Color	ND	3.0	Color Units 1 01/14/14 13:28

Method: SM 2320B	Batch: W4A0723	Prepared: 01/17/14 13:33	Analyst: ajp
Analyte	Result	MRL	Units Dil Analyzed Qualifier



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4A14003-01 ML-3 Zone # 2 (103-113 ftbgs)

Sampled: 01/13/14 11:45

Sampled By: Nathan Reynolds

Matrix: Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: SM 2320B	Batch: W4A0723	Prepared: 01/17/14 13:33				Analyst: ajp
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Alkalinity as CaCO ₃	190	2.0	mg/l	1	01/17/14 16:43	
Alkalinity as CaCO ₃	190	2.0	mg/l	1	01/17/14 16:43	
Bicarbonate Alkalinity as HCO ₃	230	2.0	mg/l	1	01/17/14 16:43	
Carbonate Alkalinity as CaCO ₃	ND	2.0	mg/l	1	01/17/14 16:43	
Hydroxide Alkalinity as CaCO ₃	ND	2.0	mg/l	1	01/17/14 16:43	

Method: SM 2510B	Batch: W4A0928	Prepared: 01/23/14 08:26				Analyst: ajp
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Specific Conductance (EC)	7800	2.0	umhos/cm	1	01/23/14 10:38	

Method: SM 2540C M	Batch: W4A0644	Prepared: 01/16/14 13:17				Analyst: ajw
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Dissolved Solids	4200	10	mg/l	1	01/16/14 15:10	

Method: SM 4500H+-B	Batch: W4A0555	Prepared: 01/14/14 17:04				Analyst: nra
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
pH	7.22	0.10	Units	1	01/14/14 17:38	*

Method: SM 5540C	Batch: W4A0545	Prepared: 01/14/14 14:56				Analyst: nra
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
MBAS	ND	0.050	mg/l	1	01/14/14 16:49	

Method: Various	Batch: [CALC]	Prepared: 01/17/14 13:33				Analyst: atl
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Anions	73	1.6	meq/l	100	01/17/14 16:43	

Diquat and Paraquat by EPA 549.2

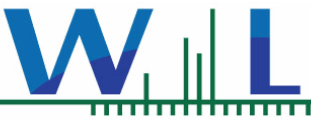
Method: EPA 549.2	Batch: W4A0444	Prepared: 01/15/14 17:01				Analyst: cwh
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Diquat	ND	4.0	ug/l	1	01/16/14 15:28	

Endothall By EPA 548.1

Method: EPA 548.1	Batch: W4A0556	Prepared: 01/14/14 17:06				Analyst: abj
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Endothall	ND	45	ug/l	1	01/18/14 20:49	

EPA 1613B mod.

Method: EPA 1613B mod.	Batch: 3522182	Prepared: 02/23/14 00:00				Analyst: VCI
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
2,3,7,8-Tetra CDD	ND	3.9	pg/L	1	02/26/14 00:00	S_MAXX



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Sampled: 01/13/14 11:45

Sampled By: Nathan Reynolds

Matrix: Water

EPA 1613B mod.

Method: EPA 1613B mod.

Batch: 3522182

Prepared: 02/23/14 00:00

Analyst: VCI

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Surr: 37CL4 2378 Tetra CDD	83 %	Conc:166	40-130	%		S_MAXX
Surr: C13-2378 TetraCDD	111 %	Conc:222	24-164	%		S_MAXX

Fumigants by EPA Method 504.1

Method: EPA 504.1

Batch: W4A0789

Prepared: 01/20/14 11:22

Analyst: jch

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,2-Dibromo-3-chloropropane	ND	0.010	ug/l	1	01/22/14 18:53	
1,2-Dibromoethane (EDB)	ND	0.020	ug/l	1	01/22/14 18:53	

Glyphosate by EPA 547

Method: EPA 547

Batch: W4A0601

Prepared: 01/15/14 15:08

Analyst: cwh

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Glyphosate	ND	5.0	ug/l	1	01/15/14 17:04	

Metals by EPA 200 Series Methods

Method: [CALC]

Batch: [CALC]

Prepared: 01/15/14 14:31

Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Cations	73	0.037	meq/l	1	01/17/14 09:29	

Method: EPA 200.7

Batch: [CALC]

Prepared: 01/15/14 14:31

Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium Hardness as CaCO3	647	0.250	mg/l	1	01/17/14 09:29	

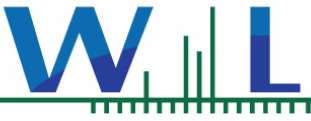
Method: EPA 200.7

Batch: W4A0592

Prepared: 01/15/14 14:31

Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Barium, Dissolved	0.092	0.0020	mg/l	1	01/17/14 09:24	
Boron, Dissolved	450	10	ug/l	1	01/17/14 09:24	
Calcium, Dissolved	254	0.100	mg/l	1	01/17/14 09:24	
Calcium, Total	259	0.100	mg/l	1	01/17/14 09:29	
Iron, Dissolved	1700	10	ug/l	1	01/17/14 09:24	
Iron, Total	3.5	0.010	mg/l	1	01/17/14 09:29	
Magnesium, Dissolved	173	0.100	mg/l	1	01/17/14 09:24	
Magnesium, Total	178	0.100	mg/l	1	01/17/14 09:29	
Manganese, Dissolved	1300	5.0	ug/l	1	01/17/14 09:24	
Manganese, Total	1.4	0.0050	mg/l	1	01/17/14 09:29	
Potassium, Dissolved	27	0.10	mg/l	1	01/17/14 09:24	
Potassium, Total	27	0.10	mg/l	1	01/17/14 09:29	
Silica as SiO2, Dissolved	40	0.10	mg/l	1	01/17/14 09:24	
Sodium, Dissolved	1000	0.50	mg/l	1	01/17/14 09:24	
Sodium, Total	1000	0.50	mg/l	1	01/17/14 09:29	



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Matrix: Water

Metals by EPA 200 Series Methods

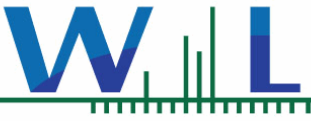
Method: EPA 200.7	Batch: W4A0592	Prepared: 01/15/14 14:31				Analyst: jck
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Strontium, Dissolved	1900	2.0	ug/l	1	01/17/14 09:24	

Method: EPA 200.7	Batch: W4B0893	Prepared: 02/20/14 14:04				Analyst: jck
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Lithium, Total	86	20	ug/l	2	02/21/14 10:43	

Method: EPA 200.8	Batch: W4A0619	Prepared: 01/16/14 09:08				Analyst: XXX
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Aluminum, Total	47	5.0	ug/l	1	01/20/14 19:39	
Arsenic, Total	5.1	0.40	ug/l	1	01/20/14 19:39	
Copper, Total	3.4	0.50	ug/l	1	01/20/14 19:39	
Zinc, Total	31	5.0	ug/l	1	01/20/14 19:39	

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2	Batch: W4A0574	Prepared: 01/15/14 09:58				Analyst: abj
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Alachlor	ND	0.10	ug/l	1	01/23/14 04:47	
Atrazine	ND	0.10	ug/l	1	01/23/14 04:47	
Benzo (a) pyrene	ND	0.10	ug/l	1	01/23/14 04:47	
Bis(2-ethylhexyl)adipate	ND	5.0	ug/l	1	01/23/14 04:47	
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/l	1	01/23/14 04:47	
Bromacil	ND	0.50	ug/l	1	01/23/14 04:47	
Butachlor	ND	0.10	ug/l	1	01/23/14 04:47	
Captan	ND	1.0	ug/l	1	01/23/14 04:47	
Chloroprotham	ND	0.10	ug/l	1	01/23/14 04:47	
Cyanazine	ND	0.10	ug/l	1	01/23/14 04:47	
Diazinon	ND	0.10	ug/l	1	01/23/14 04:47	
Dimethoate	ND	0.20	ug/l	1	01/23/14 04:47	
Diphenamid	ND	0.10	ug/l	1	01/23/14 04:47	
Disulfoton	ND	0.10	ug/l	1	01/23/14 04:47	
EPTC	ND	0.10	ug/l	1	01/23/14 04:47	
Metolachlor	ND	0.10	ug/l	1	01/23/14 04:47	
Metribuzin	ND	0.10	ug/l	1	01/23/14 04:47	
Molinate	ND	0.10	ug/l	1	01/23/14 04:47	
Prometon	ND	0.10	ug/l	1	01/23/14 04:47	
Prometryn	ND	0.10	ug/l	1	01/23/14 04:47	
Simazine	ND	0.10	ug/l	1	01/23/14 04:47	
Terbacil	ND	2.0	ug/l	1	01/23/14 04:47	
Thiobencarb	ND	0.10	ug/l	1	01/23/14 04:47	
Trithion	ND	0.10	ug/l	1	01/23/14 04:47	



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Sampled By: Nathan Reynolds

Matrix: Water

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2

Batch: W4A0574

Prepared: 01/15/14 09:58

Analyst: abj

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Surr: 1,3-Dimethyl-2-nitrobenzene	107 %	Conc:5.34	73-138	%		
Surr: Perylene-d12	95 %	Conc:4.75	30-118	%		
Surr: Triphenyl phosphate	122 %	Conc:6.10	70-149	%		

Subcontracted Analyses

Method: EPA 906.0

Batch: W4A1172

Prepared: 01/18/14 05:38

Analyst: sub

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Tritium	58.9		pCi/L	1	01/18/14 05:38	A-01

Counting Error (+/-): 121

MDA: 207

Volatile Organic Compounds by EPA Method 524.2

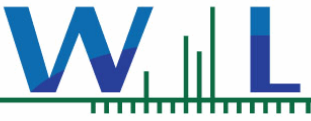
Method: EPA 524.2

Batch: W4A0558

Prepared: 01/15/14 08:20

Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l	1	01/16/14 01:51	
1,1,1-Trichloroethane	ND	0.50	ug/l	1	01/16/14 01:51	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	1	01/16/14 01:51	
1,1,2-Trichloroethane	ND	0.50	ug/l	1	01/16/14 01:51	
1,1-Dichloroethane	ND	0.50	ug/l	1	01/16/14 01:51	
1,1-Dichloroethene	ND	0.50	ug/l	1	01/16/14 01:51	
1,1-Dichloropropene	ND	0.50	ug/l	1	01/16/14 01:51	
1,2,3-Trichlorobenzene	ND	0.50	ug/l	1	01/16/14 01:51	
1,2,3-Trichloropropane	ND	0.50	ug/l	1	01/16/14 01:51	
1,2,4-Trichlorobenzene	ND	0.50	ug/l	1	01/16/14 01:51	
1,2,4-Trimethylbenzene	ND	0.50	ug/l	1	01/16/14 01:51	
1,2-Dichloroethane	ND	0.50	ug/l	1	01/16/14 01:51	
1,2-Dichloropropane	ND	0.50	ug/l	1	01/16/14 01:51	
1,3,5-Trimethylbenzene	ND	0.50	ug/l	1	01/16/14 01:51	
1,3-Dichloropropane	ND	0.50	ug/l	1	01/16/14 01:51	
1,3-Dichloropropene, Total	ND	0.50	ug/l	1	01/16/14 01:51	
2,2-Dichloropropane	ND	0.50	ug/l	1	01/16/14 01:51	
2-Butanone	ND	5.0	ug/l	1	01/16/14 01:51	
2-Chloroethyl vinyl ether	ND	1.0	ug/l	1	01/16/14 01:51	
2-Chlorotoluene	ND	0.50	ug/l	1	01/16/14 01:51	
2-Hexanone	ND	5.0	ug/l	1	01/16/14 01:51	
4-Chlorotoluene	ND	0.50	ug/l	1	01/16/14 01:51	
4-Methyl-2-pentanone	ND	5.0	ug/l	1	01/16/14 01:51	
Benzene	ND	0.50	ug/l	1	01/16/14 01:51	
Bromobenzene	ND	0.50	ug/l	1	01/16/14 01:51	
Bromochloromethane	ND	0.50	ug/l	1	01/16/14 01:51	
Bromodichloromethane	ND	0.50	ug/l	1	01/16/14 01:51	



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Sampled: 01/13/14 11:45

Sampled By: Nathan Reynolds

Matrix: Water

Volatile Organic Compounds by EPA Method 524.2

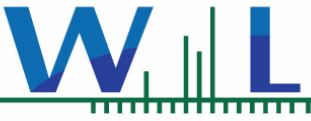
Method: EPA 524.2

Batch: W4A0558

Prepared: 01/15/14 08:20

Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Bromoform	ND	0.50	ug/l	1	01/16/14 01:51	
Bromomethane	ND	0.50	ug/l	1	01/16/14 01:51	
Carbon tetrachloride	ND	0.50	ug/l	1	01/16/14 01:51	
Chlorobenzene	ND	0.50	ug/l	1	01/16/14 01:51	
Chloroethane	ND	0.50	ug/l	1	01/16/14 01:51	
Chloroform	ND	0.50	ug/l	1	01/16/14 01:51	
Chloromethane	ND	0.50	ug/l	1	01/16/14 01:51	
cis-1,2-Dichloroethene	ND	0.50	ug/l	1	01/16/14 01:51	
cis-1,3-Dichloropropene	ND	0.50	ug/l	1	01/16/14 01:51	
Dibromochloromethane	ND	0.50	ug/l	1	01/16/14 01:51	
Dibromomethane	ND	0.50	ug/l	1	01/16/14 01:51	
Dichlorodifluoromethane (Freon 12)	ND	0.50	ug/l	1	01/16/14 01:51	
Di-isopropyl ether	ND	2.0	ug/l	1	01/16/14 01:51	
Ethyl tert-butyl ether	ND	2.0	ug/l	1	01/16/14 01:51	
Ethylbenzene	ND	0.50	ug/l	1	01/16/14 01:51	
Freon 113	ND	5.0	ug/l	1	01/16/14 01:51	
Hexachlorobutadiene	ND	0.50	ug/l	1	01/16/14 01:51	
Isopropylbenzene	ND	0.50	ug/l	1	01/16/14 01:51	
m,p-Xylene	ND	0.50	ug/l	1	01/16/14 01:51	
m-Dichlorobenzene	ND	0.50	ug/l	1	01/16/14 01:51	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/l	1	01/16/14 01:51	
Methylene chloride	ND	0.50	ug/l	1	01/16/14 01:51	
Naphthalene	ND	0.50	ug/l	1	01/16/14 01:51	
n-Butylbenzene	ND	0.50	ug/l	1	01/16/14 01:51	
n-Propylbenzene	ND	0.50	ug/l	1	01/16/14 01:51	
o-Dichlorobenzene	ND	0.50	ug/l	1	01/16/14 01:51	
o-Xylene	ND	0.50	ug/l	1	01/16/14 01:51	
p-Dichlorobenzene	ND	0.50	ug/l	1	01/16/14 01:51	
p-Isopropyltoluene	ND	0.50	ug/l	1	01/16/14 01:51	
sec-Butylbenzene	ND	0.50	ug/l	1	01/16/14 01:51	
Styrene	ND	0.50	ug/l	1	01/16/14 01:51	
Tert-amyl methyl ether	ND	2.0	ug/l	1	01/16/14 01:51	
tert-Butylbenzene	ND	0.50	ug/l	1	01/16/14 01:51	
Tetrachloroethene	ND	0.50	ug/l	1	01/16/14 01:51	
THMs, Total	ND	2.0	ug/l	1	01/16/14 01:51	
Toluene	ND	0.50	ug/l	1	01/16/14 01:51	
trans-1,2-Dichloroethene	ND	0.50	ug/l	1	01/16/14 01:51	
trans-1,3-Dichloropropene	ND	0.50	ug/l	1	01/16/14 01:51	
Trichloroethene	ND	0.50	ug/l	1	01/16/14 01:51	
Trichlorofluoromethane	ND	0.50	ug/l	1	01/16/14 01:51	



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4A14003-01 ML-3 Zone # 2 (103-113 ftbgs)

Sampled: 01/13/14 11:45

Sampled By: Nathan Reynolds

Matrix: Water

Volatile Organic Compounds by EPA Method 524.2

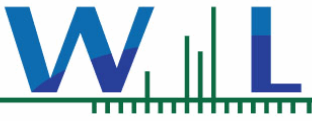
Method: EPA 524.2

Batch: W4A0558

Prepared: 01/15/14 08:20

Analyst: mdt

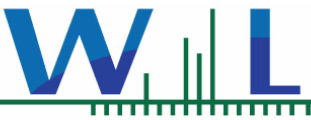
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Vinyl chloride	ND	0.50	ug/l	1	01/16/14 01:51	
Xylenes, Total	ND	1.0	ug/l	1	01/16/14 01:51	
<i>Surr: 1,2-Dichlorobenzene-d4</i>	101 %	Conc:10.1	70-130	%		
<i>Surr: 4-Bromofluorobenzene</i>	91 %	Conc:9.13	70-130	%		



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QUALITY CONTROL SECTION



California American Water-Monterey
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Date Received: 01/14/14 09:15
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Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

Batch W4A0532 - EPA 300.0

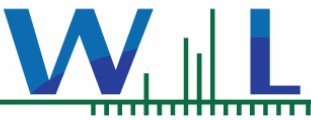
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0532-BLK1)				Analyzed: 01/14/14 11:31						
Chloride, Total	ND	0.50	mg/l							
Fluoride, Total	ND	0.10	mg/l							
Sulfate as SO4	ND	0.50	mg/l							
LCS (W4A0532-BS1)				Analyzed: 01/14/14 11:49						
Chloride, Total	3.81	0.50	mg/l	4.00		95	90-110			
Fluoride, Total	2.06	0.10	mg/l	2.00		103	90-110			
Sulfate as SO4	7.78	0.50	mg/l	8.00		97	90-110			
Matrix Spike (W4A0532-MS1)				Source: 4A13043-05 Analyzed: 01/14/14 12:49						
Chloride, Total	45.3	5.0	mg/l	40.0	7.51	94	76-118			
Fluoride, Total	20.3	1.0	mg/l	20.0	0.713	98	86-107			
Sulfate as SO4	92.8	5.0	mg/l	80.0	16.5	95	78-111			
Matrix Spike (W4A0532-MS2)				Source: 4A13065-02 Analyzed: 01/14/14 20:15						
Chloride, Total	65.9	5.0	mg/l	40.0	27.3	96	76-118			
Fluoride, Total	21.5	1.0	mg/l	20.0	0.396	105	86-107			
Sulfate as SO4	132	5.0	mg/l	80.0	56.4	95	78-111			
Matrix Spike Dup (W4A0532-MSD1)				Source: 4A13043-05 Analyzed: 01/14/14 13:08						
Chloride, Total	46.3	5.0	mg/l	40.0	7.51	97	76-118	2	20	
Fluoride, Total	21.3	1.0	mg/l	20.0	0.713	103	86-107	5	20	
Sulfate as SO4	92.3	5.0	mg/l	80.0	16.5	95	78-111	0.6	20	
Matrix Spike Dup (W4A0532-MSD2)				Source: 4A13065-02 Analyzed: 01/14/14 20:34						
Chloride, Total	65.3	5.0	mg/l	40.0	27.3	95	76-118	1	20	
Fluoride, Total	21.4	1.0	mg/l	20.0	0.396	105	86-107	0.5	20	
Sulfate as SO4	132	5.0	mg/l	80.0	56.4	94	78-111	0.7	20	

Batch W4A0844 - EPA 300.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0844-BLK1)				Analyzed: 01/21/14 15:14						
Bromide	ND	10	ug/l							
Surr: Dichloroacetate	502		ug/l	500		100	90-115			
LCS (W4A0844-BS1)				Analyzed: 01/21/14 15:14						
Bromide	99.2	10	ug/l	100		99	85-115			
Surr: Dichloroacetate	490		ug/l	500		98	90-115			
Matrix Spike (W4A0844-MS1)				Source: 4A08035-01 Analyzed: 01/21/14 15:14						
Bromide	757	20	ug/l	200	605	76	73-125			
Surr: Dichloroacetate	467		ug/l	500		93	90-115			
Matrix Spike Dup (W4A0844-MSD1)				Source: 4A08035-01 Analyzed: 01/21/14 15:14						
Bromide	784	20	ug/l	200	605	89	73-125	4	20	
Surr: Dichloroacetate	487		ug/l	500		97	90-115			

Batch W4B0889 - EPA 9056A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
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Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

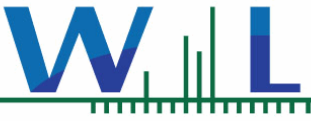
Batch W4B0889 - EPA 9056A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0889-BLK1)				Analyzed: 02/20/14 15:41						
Iodide, Dissolved	ND	10	ug/l							
LCS (W4B0889-BS1)				Analyzed: 02/20/14 15:41						
Iodide, Dissolved	40.0	10	ug/l	40.0		100	85-115			
Duplicate (W4B0889-DUP1)				Source: 4B06015-02 Analyzed: 02/20/14 15:41						
Iodide, Dissolved	63.0	25	ug/l		63.9			1	20	
Matrix Spike (W4B0889-MS1)				Source: 4B06015-02 Analyzed: 02/20/14 15:41						
Iodide, Dissolved	176	25	ug/l	100	63.9	112	80-120			
Matrix Spike Dup (W4B0889-MSD1)				Source: 4B06015-02 Analyzed: 02/20/14 15:41						
Iodide, Dissolved	149	25	ug/l	100	63.9	85	80-120	17	20	

Carbamates and Urea Pesticides - Quality Control

Batch W4A0802 - EPA 531.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0802-BLK1)				Analyzed: 01/20/14 23:50						
3-Hydroxycarbofuran	ND	2.0	ug/l							
Aldicarb	ND	2.0	ug/l							
Aldicarb sulfone	ND	2.0	ug/l							
Aldicarb sulfoxide	ND	2.0	ug/l							
Carbaryl	ND	2.0	ug/l							
Carbofuran	ND	2.0	ug/l							
Methiocarb	ND	2.0	ug/l							
Methomyl	ND	2.0	ug/l							
Oxamyl	ND	2.0	ug/l							
Propoxur (Baygon)	ND	2.0	ug/l							
LCS (W4A0802-BS1)				Analyzed: 01/20/14 23:50						
3-Hydroxycarbofuran	10.3	2.0	ug/l	10.0		103	80-120			
Aldicarb	11.1	2.0	ug/l	10.0		111	80-120			
Aldicarb sulfone	9.86	2.0	ug/l	10.0		99	80-120			
Aldicarb sulfoxide	10.3	2.0	ug/l	10.0		103	80-120			
Carbaryl	11.1	2.0	ug/l	10.0		111	80-120			
Carbofuran	9.64	2.0	ug/l	10.0		96	80-120			
Methiocarb	11.7	2.0	ug/l	10.0		117	80-120			
Methomyl	9.53	2.0	ug/l	10.0		95	80-120			
Oxamyl	10.1	2.0	ug/l	10.0		101	80-120			
Propoxur (Baygon)	9.79	2.0	ug/l	10.0		98	80-120			
Matrix Spike (W4A0802-MS1)				Source: 4A13019-01 Analyzed: 01/20/14 23:50						
3-Hydroxycarbofuran	8.26	2.0	ug/l	10.0	ND	83	65-135			
Aldicarb	10.3	2.0	ug/l	10.0	ND	103	65-135			
Aldicarb sulfone	9.41	2.0	ug/l	10.0	ND	94	65-135			
Aldicarb sulfoxide	10.3	2.0	ug/l	10.0	ND	103	65-135			



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Carbamates and Urea Pesticides - Quality Control

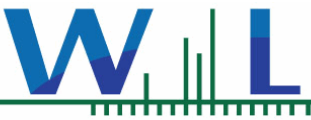
Batch W4A0802 - EPA 531.1

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Matrix Spike (W4A0802-MS1)			Source: 4A13019-01		Analyzed: 01/20/14 23:50					
Carbaryl	9.56	2.0	ug/l	10.0	ND	96	65-135			
Carbofuran	10.2	2.0	ug/l	10.0	ND	102	65-135			
Methiocarb	10.0	2.0	ug/l	10.0	ND	100	65-135			
Methomyl	9.17	2.0	ug/l	10.0	ND	92	65-135			
Oxamyl	8.48	2.0	ug/l	10.0	ND	85	65-135			
Propoxur (Baygon)	8.94	2.0	ug/l	10.0	ND	89	65-135			
Matrix Spike Dup (W4A0802-MSD1)			Source: 4A13019-01		Analyzed: 01/20/14 23:50					
3-Hydroxycarbofuran	8.62	2.0	ug/l	10.0	ND	86	65-135	4	30	
Aldicarb	10.1	2.0	ug/l	10.0	ND	101	65-135	2	30	
Aldicarb sulfone	9.03	2.0	ug/l	10.0	ND	90	65-135	4	30	
Aldicarb sulfoxide	10.9	2.0	ug/l	10.0	ND	109	65-135	6	30	
Carbaryl	9.23	2.0	ug/l	10.0	ND	92	65-135	4	30	
Carbofuran	8.51	2.0	ug/l	10.0	ND	85	65-135	18	30	
Methiocarb	9.94	2.0	ug/l	10.0	ND	99	65-135	1	30	
Methomyl	9.60	2.0	ug/l	10.0	ND	96	65-135	5	30	
Oxamyl	7.27	2.0	ug/l	10.0	ND	73	65-135	15	30	
Propoxur (Baygon)	8.90	2.0	ug/l	10.0	ND	89	65-135	0.4	30	

Chlorinated Herbicides - Quality Control

Batch W4A0564 - EPA 515.3

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Blank (W4A0564-BLK1)			Analyzed: 01/24/14 22:44							
2,4,5-T	ND	0.20	ug/l							
2,4,5-TP (Silvex)	ND	0.20	ug/l							
2,4-D	ND	0.40	ug/l							
2,4-DB	ND	2.0	ug/l							
3,5-Dichlorobenzoic acid	ND	1.0	ug/l							
Acifluorfen	ND	0.40	ug/l							
Bentazon	ND	2.0	ug/l							
Dalapon	ND	0.40	ug/l							
DCPA	ND	0.10	ug/l							
Dicamba	ND	0.60	ug/l							
Dichloroprop	ND	0.30	ug/l							
Dinoseb	ND	0.40	ug/l							
Pentachlorophenol	ND	0.20	ug/l							
Picloram	ND	0.60	ug/l							
Surr: 2,4-DCAA	9.76		ug/l	10.0		98	70-130			
LCS (W4A0564-BS1)			Analyzed: 01/24/14 23:12							
2,4,5-T	4.09	0.20	ug/l	4.00		102	70-130			
2,4,5-TP (Silvex)	3.98	0.20	ug/l	4.00		99	70-130			
2,4-D	9.60	0.40	ug/l	8.00		120	70-130			



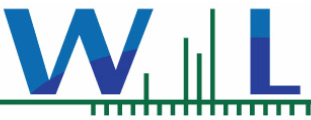
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Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:25

Chlorinated Herbicides - Quality Control

Batch W4A0564 - EPA 515.3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4A0564-BS1)				Analyzed: 01/24/14 23:12						
2,4-DB	13.9	2.0	ug/l	16.0		87	70-130			
3,5-Dichlorobenzoic acid	8.32	1.0	ug/l	8.00		104	70-130			
Acifluorfen	4.36	0.40	ug/l	4.00		109	70-130			
Bentazon	15.0	2.0	ug/l	16.0		94	70-130			
Dalapon	9.17	0.40	ug/l	8.00		115	70-130			
DCPA	3.66	0.10	ug/l	4.00		92	70-130			
Dicamba	7.56	0.60	ug/l	8.00		95	70-130			
Dichloroprop	9.26	0.30	ug/l	8.00		116	70-130			
Dinoseb	4.08	0.40	ug/l	4.00		102	70-130			
Pentachlorophenol	3.85	0.20	ug/l	4.00		96	70-130			
Picloram	4.39	0.60	ug/l	4.00		110	70-130			
Surr: 2,4-DCAA	10.4		ug/l	10.0		104	70-130			
Matrix Spike (W4A0564-MS1)				Source: 4A14003-01		Analyzed: 01/24/14 23:40				
2,4,5-T	3.92	0.20	ug/l	4.00	ND	98	70-130			
2,4,5-TP (Silvex)	3.77	0.20	ug/l	4.00	ND	94	70-130			
2,4-D	9.09	0.40	ug/l	8.00	ND	114	70-130			
2,4-DB	12.1	2.0	ug/l	16.0	ND	75	70-130			
3,5-Dichlorobenzoic acid	7.35	1.0	ug/l	8.00	ND	92	70-130			
Acifluorfen	4.70	0.40	ug/l	4.00	ND	118	70-130			
Bentazon	7.01	2.0	ug/l	16.0	ND	44	70-130			MS-05
Dalapon	9.15	0.40	ug/l	8.00	ND	114	70-130			
DCPA	3.46	0.10	ug/l	4.00	ND	86	70-130			
Dicamba	7.07	0.60	ug/l	8.00	ND	88	70-130			
Dichloroprop	9.83	0.30	ug/l	8.00	ND	123	70-130			
Dinoseb	2.26	0.40	ug/l	4.00	ND	57	70-130			MS-05
Pentachlorophenol	1.51	0.20	ug/l	4.00	ND	38	70-130			MS-05
Picloram	4.30	0.60	ug/l	4.00	ND	108	70-130			
Surr: 2,4-DCAA	9.06		ug/l	10.0		91	70-130			
Matrix Spike Dup (W4A0564-MSD1)				Source: 4A14003-01		Analyzed: 01/25/14 00:08				
2,4,5-T	3.93	0.20	ug/l	4.00	ND	98	70-130	0.3	30	
2,4,5-TP (Silvex)	3.76	0.20	ug/l	4.00	ND	94	70-130	0.4	30	
2,4-D	9.31	0.40	ug/l	8.00	ND	116	70-130	2	30	
2,4-DB	12.6	2.0	ug/l	16.0	ND	79	70-130	4	30	
3,5-Dichlorobenzoic acid	7.91	1.0	ug/l	8.00	ND	99	70-130	7	30	
Acifluorfen	4.85	0.40	ug/l	4.00	ND	121	70-130	3	30	
Bentazon	7.48	2.0	ug/l	16.0	ND	47	70-130	6	30	MS-05
Dalapon	9.18	0.40	ug/l	8.00	ND	115	70-130	0.2	30	
DCPA	3.47	0.10	ug/l	4.00	ND	87	70-130	0.3	30	
Dicamba	7.51	0.60	ug/l	8.00	ND	94	70-130	6	30	
Dichloroprop	9.85	0.30	ug/l	8.00	ND	123	70-130	0.2	30	
Dinoseb	2.08	0.40	ug/l	4.00	ND	52	70-130	8	30	MS-05
Pentachlorophenol	1.57	0.20	ug/l	4.00	ND	39	70-130	4	30	MS-05
Picloram	4.46	0.60	ug/l	4.00	ND	111	70-130	3	30	
Surr: 2,4-DCAA	9.38		ug/l	10.0		94	70-130			



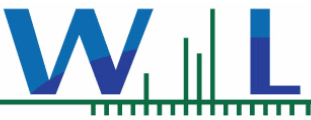
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 Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
 Date Reported: 03/06/14 09:25

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4A0617 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0617-BLK1)				Analyzed: 01/29/14 19:18						
4,4'-DDD	ND	0.010	ug/l							
4,4'-DDE	ND	0.010	ug/l							
4,4'-DDT	ND	0.010	ug/l							
Aldrin	ND	0.010	ug/l							
alpha-BHC	ND	0.010	ug/l							
Aroclor 1016	ND	0.10	ug/l							
Aroclor 1221	ND	0.10	ug/l							
Aroclor 1232	ND	0.10	ug/l							
Aroclor 1242	ND	0.10	ug/l							
Aroclor 1248	ND	0.10	ug/l							
Aroclor 1254	ND	0.10	ug/l							
Aroclor 1260	ND	0.10	ug/l							
beta-BHC	ND	0.010	ug/l							
Chlordane (tech)	ND	0.10	ug/l							
Chlorothalonil	ND	0.050	ug/l							
delta-BHC	ND	0.010	ug/l							
Dieldrin	ND	0.010	ug/l							
Endosulfan I	ND	0.010	ug/l							
Endosulfan II	ND	0.010	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							
Endrin	ND	0.010	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.010	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.010	ug/l							
Hexachlorobenzene	ND	0.010	ug/l							
Hexachlorocyclopentadiene	ND	0.050	ug/l							
Methoxychlor	ND	0.010	ug/l							
PCBs, Total	ND	0.50	ug/l							
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							
Surr: Decachlorobiphenyl	0.103		ug/l	0.100		103	70-130			
Surr: Tetrachloro-meta-xylene	0.0743		ug/l	0.100		74	70-130			
LCS (W4A0617-BS1)				Analyzed: 01/29/14 19:48						
4,4'-DDD	0.125	0.010	ug/l	0.100		125	55-142			
4,4'-DDE	0.111	0.010	ug/l	0.100		111	49-129			
4,4'-DDT	0.110	0.010	ug/l	0.100		110	54-160			
Aldrin	0.0542	0.010	ug/l	0.100		54	29-115			
alpha-BHC	0.0952	0.010	ug/l	0.100		95	59-131			
beta-BHC	0.0982	0.010	ug/l	0.100		98	63-136			
delta-BHC	0.101	0.010	ug/l	0.100		101	59-137			
Dieldrin	0.0796	0.010	ug/l	0.100		80	59-135			
Endosulfan I	0.0907	0.010	ug/l	0.100		91	28-138			



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Chlorinated Pesticides and/or PCBs - Quality Control

Batch W4A0617 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/29/14 19:48										
LCS (W4A0617-BS1)										
Endosulfan II	0.103	0.010	ug/l	0.100		103	53-133			
Endosulfan sulfate	0.117	0.010	ug/l	0.100		117	58-155			
Endrin	0.0972	0.010	ug/l	0.100		97	57-148			
Endrin aldehyde	0.0318	0.010	ug/l	0.100		32	45-139			Q-02
gamma-BHC (Lindane)	0.0931	0.010	ug/l	0.100		93	59-129			
Heptachlor	0.0855	0.010	ug/l	0.100		85	42-136			
Heptachlor epoxide	0.0922	0.010	ug/l	0.100		92	59-134			
Methoxychlor	0.114	0.010	ug/l	0.100		114	56-167			
Surr: Decachlorobiphenyl	0.103		ug/l	0.100		103	70-130			
Surr: Tetrachloro-meta-xylene	0.0773		ug/l	0.100		77	70-130			

LCS Dup (W4A0617-BSD1)

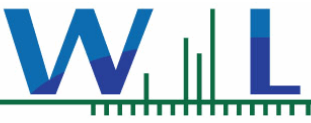
Analyzed: 01/29/14 20:19

4,4'-DDD	0.140	0.010	ug/l	0.100		140	55-142	12	25	
4,4'-DDE	0.123	0.010	ug/l	0.100		123	49-129	10	25	
4,4'-DDT	0.124	0.010	ug/l	0.100		124	54-160	12	25	
Aldrin	0.0604	0.010	ug/l	0.100		60	29-115	11	25	
alpha-BHC	0.101	0.010	ug/l	0.100		101	59-131	6	25	
beta-BHC	0.107	0.010	ug/l	0.100		107	63-136	9	25	
delta-BHC	0.111	0.010	ug/l	0.100		111	59-137	9	25	
Dieldrin	0.0854	0.010	ug/l	0.100		85	59-135	7	25	
Endosulfan I	0.100	0.010	ug/l	0.100		100	28-138	10	25	
Endosulfan II	0.114	0.010	ug/l	0.100		114	53-133	11	25	
Endosulfan sulfate	0.134	0.010	ug/l	0.100		134	58-155	14	25	
Endrin	0.109	0.010	ug/l	0.100		109	57-148	11	25	
Endrin aldehyde	0.0339	0.010	ug/l	0.100		34	45-139	6	25	Q-02
gamma-BHC (Lindane)	0.100	0.010	ug/l	0.100		100	59-129	8	25	
Heptachlor	0.0935	0.010	ug/l	0.100		93	42-136	9	25	
Heptachlor epoxide	0.100	0.010	ug/l	0.100		100	59-134	8	25	
Methoxychlor	0.127	0.010	ug/l	0.100		127	56-167	11	25	
Surr: Decachlorobiphenyl	0.101		ug/l	0.100		101	70-130			
Surr: Tetrachloro-meta-xylene	0.0792		ug/l	0.100		79	70-130			

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W4A0520 - EPA 180.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/14/14 11:24										
Blank (W4A0520-BLK1)										
Turbidity	ND	0.10	NTU							
Analyzed: 01/14/14 11:24										
LCS (W4A0520-BS1)										
Turbidity	11.0	0.10	NTU	11.0		100	90-110			
Analyzed: 01/14/14 11:24										
Duplicate (W4A0520-DUP1)	Source: 4A13062-01									
Turbidity	ND	0.10	NTU		ND					



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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W4A0522 - EPA 140.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Duplicate (W4A0522-DUP1)		Source: 4A14003-01			Analyzed: 01/14/14 11:52					
Threshold Odor Number	2.0	1.0	T.O.N.		2.0			NR	20	

Batch W4A0524 - EPA 351.2

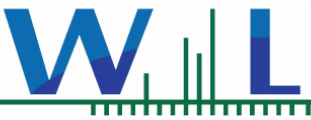
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0524-BLK1)		Analyzed: 01/17/14 17:00								
TKN, Soluble	ND	0.10	mg/l							
Blank (W4A0524-BLK2)		Analyzed: 01/17/14 17:00								
TKN, Soluble	ND	0.10	mg/l							
LCS (W4A0524-BS1)		Analyzed: 01/17/14 17:00								
TKN, Soluble	0.970	0.10	mg/l	1.00		97	90-110			
LCS (W4A0524-BS2)		Analyzed: 01/17/14 17:00								
TKN, Soluble	0.963	0.10	mg/l	1.00		96	90-110			

Batch W4A0533 - SM 2120B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4A0533-BS1)		Analyzed: 01/14/14 13:28								
Color	10.0	3.0	Color Units	10.0		100	95-105			
Duplicate (W4A0533-DUP1)		Source: 4A13077-04			Analyzed: 01/14/14 13:28					
Color	ND	3.0	Color Units		0.00					

Batch W4A0535 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0535-BLK1)		Analyzed: 01/14/14 15:36								
Nitrate as NO3	ND	0.50	mg/l							
NO2+NO3 as N	ND	100	ug/l							
LCS (W4A0535-BS1)		Analyzed: 01/14/14 15:38								
Nitrate as NO3	4.40	0.50	mg/l	4.43		99	90-110			
NO2+NO3 as N	994	100	ug/l	1000		99	90-110			
Matrix Spike (W4A0535-MS1)		Source: 4A13065-02			Analyzed: 01/14/14 15:42					
Nitrate as NO3	39.4	0.50	mg/l	8.86	30.1	104	90-110			
NO2+NO3 as N	8880	100	ug/l	2000	6800	104	90-110			
Matrix Spike (W4A0535-MS2)		Source: 4A13065-03			Analyzed: 01/14/14 19:38					
Nitrate as NO3	38.9	0.50	mg/l	8.86	30.3	97	90-110			
NO2+NO3 as N	8790	100	ug/l	2000	6840	97	90-110			
Matrix Spike Dup (W4A0535-MSD1)		Source: 4A13065-02			Analyzed: 01/14/14 15:44					
Nitrate as NO3	39.3	0.50	mg/l	8.86	30.1	104	90-110	0.06	20	
NO2+NO3 as N	8880	100	ug/l	2000	6800	104	90-110	0.06	20	
Matrix Spike Dup (W4A0535-MSD2)		Source: 4A13065-03			Analyzed: 01/14/14 19:41					
Nitrate as NO3	39.8	0.50	mg/l	8.86	30.3	107	90-110	2	20	



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Batch W4A0535 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup (W4A0535-MSD2)		Source: 4A13065-03		Analyzed: 01/14/14 19:41						
NO2+NO3 as N	8980	100	ug/l	2000	6840	107	90-110	2	20	

Batch W4A0544 - EPA 365.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0544-BLK1)		Analyzed: 01/14/14 15:42								
o-Phosphate as P	ND	0.0020	mg/l							
LCS (W4A0544-BS1)		Analyzed: 01/14/14 15:43								
o-Phosphate as P	0.0503	0.0020	mg/l	0.0500		101	90-110			
Matrix Spike (W4A0544-MS1)		Source: 4A14003-01		Analyzed: 01/14/14 15:50						
o-Phosphate as P	0.0609	0.0020	mg/l	0.0500	0.0117	98	90-110			
Matrix Spike Dup (W4A0544-MSD1)		Source: 4A14003-01		Analyzed: 01/14/14 15:52						
o-Phosphate as P	0.0591	0.0020	mg/l	0.0500	0.0117	95	90-110	3	20	

Batch W4A0545 - SM 5540C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0545-BLK1)		Analyzed: 01/14/14 16:49								
MBAS	ND	0.050	mg/l							
LCS (W4A0545-BS1)		Analyzed: 01/14/14 16:49								
MBAS	0.187	0.050	mg/l	0.200		94	82-115			
Matrix Spike (W4A0545-MS1)		Source: 4A13077-04		Analyzed: 01/14/14 16:49						
MBAS	0.205	0.050	mg/l	0.200	0.0223	91	74-123			
Matrix Spike Dup (W4A0545-MSD1)		Source: 4A13077-04		Analyzed: 01/14/14 16:49						
MBAS	0.209	0.050	mg/l	0.200	0.0223	93	74-123	2	20	

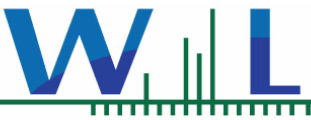
Batch W4A0555 - SM 4500H+-B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4A0555-BS1)		Analyzed: 01/14/14 17:38								
pH	7.34	0.10	Units	7.41		99	98.8-101			
Duplicate (W4A0555-DUP1)		Source: 4A14003-01		Analyzed: 01/14/14 17:38						
pH	7.31	0.10	Units		7.22			1	3.1	

Batch W4A0596 - EPA 350.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0596-BLK1)		Analyzed: 01/17/14 14:26								
Ammonia as N, Dissolved	ND	0.10	mg/l							
LCS (W4A0596-BS1)		Analyzed: 01/17/14 14:26								
Ammonia as N, Dissolved	0.257	0.10	mg/l	0.250		103	90-110			

Batch W4A0644 - SM 2540C M



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Batch W4A0644 - SM 2540C M

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0644-BLK1)				Analyzed: 01/16/14 15:10						
Total Dissolved Solids	ND	10	mg/l							
LCS (W4A0644-BS1)				Analyzed: 01/16/14 15:10						
Total Dissolved Solids	802	10	mg/l	824		97	96-102			
Duplicate (W4A0644-DUP1)				Source: 4A14063-01 Analyzed: 01/16/14 15:10						
Total Dissolved Solids	3150	10	mg/l		3170			0.8	10	

Batch W4A0723 - SM 2320B

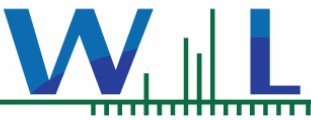
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0723-BLK1)				Analyzed: 01/17/14 16:43						
Alkalinity as CaCO3	ND	2.0	mg/l							
Alkalinity as CaCO3	ND	2.0	mg/l							
Bicarbonate Alkalinity as HCO3	ND	2.0	mg/l							
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l							
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l							
LCS (W4A0723-BS1)				Analyzed: 01/17/14 16:43						
Alkalinity as CaCO3	246	2.0	mg/l	250		98	94-108			
Alkalinity as CaCO3	246	2.0	mg/l	250		98	94-108			
Bicarbonate Alkalinity as HCO3	300	2.0	mg/l	305		98	95-108			
Duplicate (W4A0723-DUP1)				Source: 4A14003-01 Analyzed: 01/17/14 16:43						
Alkalinity as CaCO3	183	2.0	mg/l		185			1	15	
Alkalinity as CaCO3	183	2.0	mg/l		185			1	15	
Bicarbonate Alkalinity as HCO3	223	2.0	mg/l		226			1	15	
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l		ND					
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l		ND					

Batch W4A0809 - EPA 365.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0809-BLK1)				Analyzed: 01/23/14 10:39						
Phosphorus, Dissolved	ND	0.010	mg/l							
LCS (W4A0809-BS1)				Analyzed: 01/23/14 10:40						
Phosphorus, Dissolved	0.0485	0.010	mg/l	0.0500		97	90-110			
Duplicate (W4A0809-DUP1)				Source: 4A14072-01 Analyzed: 01/23/14 10:50						
Phosphorus, Dissolved	ND	0.010	mg/l		0.00300			NR	20	Q-R-01
Matrix Spike (W4A0809-MS1)				Source: 4A14076-04 Analyzed: 01/23/14 10:43						
Phosphorus, Dissolved	0.0622	0.010	mg/l	0.0500	0.0144	96	90-110			
Matrix Spike Dup (W4A0809-MSD1)				Source: 4A14076-04 Analyzed: 01/23/14 10:44						
Phosphorus, Dissolved	0.0630	0.010	mg/l	0.0500	0.0144	97	90-110	1	20	

Batch W4A0928 - SM 2510B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0928-BLK1)				Analyzed: 01/23/14 10:38						



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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W4A0928 - SM 2510B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Specific Conductance (EC)	ND	2.0	umhos/cm							
LCS (W4A0928-BS1)				Analyzed: 01/23/14 10:38						
Specific Conductance (EC)	5080	2.0	umhos/cm	5000		102	95-105			
Duplicate (W4A0928-DUP1)				Source: 4A14003-01 Analyzed: 01/23/14 10:38						
Specific Conductance (EC)	7550	2.0	umhos/cm		7780			3	5	

Diquat and Paraquat by EPA 549.2 - Quality Control

Batch W4A0444 - EPA 549.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0444-BLK1)				Analyzed: 01/16/14 15:28						
Diquat	ND	4.0	ug/l							
LCS (W4A0444-BS1)				Analyzed: 01/16/14 15:28						
Diquat	14.9	4.0	ug/l	20.0		74	48-130			
Matrix Spike (W4A0444-MS1)				Source: 4A14004-01 Analyzed: 01/16/14 15:28						
Diquat	12.0	4.0	ug/l	20.0	ND	60	46-122			
Matrix Spike (W4A0444-MS2)				Source: 4A14010-01 Analyzed: 01/16/14 15:28						
Diquat	16.1	4.0	ug/l	20.0	ND	81	46-122			
Matrix Spike Dup (W4A0444-MSD1)				Source: 4A14004-01 Analyzed: 01/16/14 15:28						
Diquat	11.4	4.0	ug/l	20.0	ND	57	46-122	5	30	
Matrix Spike Dup (W4A0444-MSD2)				Source: 4A14010-01 Analyzed: 01/16/14 15:28						
Diquat	16.8	4.0	ug/l	20.0	ND	84	46-122	4	30	

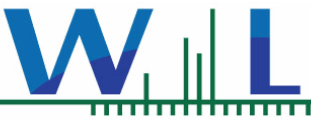
Endothall By EPA 548.1 - Quality Control

Batch W4A0556 - EPA 548.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0556-BLK1)				Analyzed: 01/18/14 18:34						
Endothall	ND	45	ug/l							
LCS (W4A0556-BS1)				Analyzed: 01/18/14 18:47						
Endothall	71.7	45	ug/l	100		72	31-117			
Matrix Spike (W4A0556-MS1)				Source: 4A14010-01 Analyzed: 01/18/14 19:01						
Endothall	68.3	90	ug/l	200	ND	34	0.1-109			
Matrix Spike Dup (W4A0556-MSD1)				Source: 4A14010-01 Analyzed: 01/18/14 19:14						
Endothall	68.4	90	ug/l	200	ND	34	0.1-109	0.2	30	

Fumigants by EPA Method 504.1 - Quality Control

Batch W4A0789 - EPA 504.1



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Fumigants by EPA Method 504.1 - Quality Control

Batch W4A0789 - EPA 504.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0789-BLK1)				Analyzed: 01/22/14 15:25						
1,2-Dibromo-3-chloropropane	ND	0.010	ug/l							
1,2-Dibromoethane (EDB)	ND	0.020	ug/l							
LCS (W4A0789-BS1)				Analyzed: 01/22/14 16:01						
1,2-Dibromo-3-chloropropane	0.0910	0.010	ug/l	0.100		91	70-130			
1,2-Dibromoethane (EDB)	0.0780	0.020	ug/l	0.100		78	70-130			
LCS (W4A0789-BS2)				Analyzed: 01/22/14 16:38						
1,2-Dibromo-3-chloropropane	0.0180	0.010	ug/l	0.0200		90	70-130			
1,2-Dibromoethane (EDB)	0.0160	0.020	ug/l	0.0200		80	70-130			
LCS Dup (W4A0789-BSD1)				Analyzed: 01/22/14 17:08						
1,2-Dibromo-3-chloropropane	0.106	0.010	ug/l	0.100		106	70-130	15	30	
1,2-Dibromoethane (EDB)	0.100	0.020	ug/l	0.100		100	70-130	25	30	

Glyphosate by EPA 547 - Quality Control

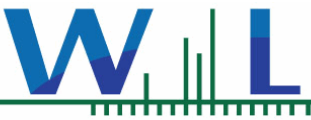
Batch W4A0601 - EPA 547

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0601-BLK1)				Analyzed: 01/15/14 17:04						
Glyphosate	ND	5.0	ug/l							
LCS (W4A0601-BS1)				Analyzed: 01/15/14 17:04						
Glyphosate	19.9	5.0	ug/l	25.0		80	62-130			
Matrix Spike (W4A0601-MS1)				Source: 4A14010-01 Analyzed: 01/15/14 17:04						
Glyphosate	18.4	5.0	ug/l	25.0	ND	74	41-149			
Matrix Spike Dup (W4A0601-MSD1)				Source: 4A14010-01 Analyzed: 01/15/14 17:04						
Glyphosate	17.3	5.0	ug/l	25.0	ND	69	41-149	6	30	

Metals by EPA 200 Series Methods - Quality Control

Batch W4A0592 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0592-BLK1)				Analyzed: 01/17/14 09:21						
Barium, Dissolved	ND	0.0020	mg/l							
Boron, Dissolved	ND	10	ug/l							
Calcium, Dissolved	ND	0.100	mg/l							
Calcium, Total	ND	0.100	mg/l							
Iron, Dissolved	ND	10	ug/l							
Iron, Total	ND	0.010	mg/l							
Magnesium, Dissolved	ND	0.100	mg/l							
Magnesium, Total	ND	0.100	mg/l							
Manganese, Dissolved	ND	5.0	ug/l							



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Date Received: 01/14/14 09:15
 Date Reported: 03/06/14 09:25

Metals by EPA 200 Series Methods - Quality Control

Batch W4A0592 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/17/14 09:18										
Blank (W4A0592-BLK1)										
Manganese, Total	ND	0.0050	mg/l							
Potassium, Dissolved	0.301	0.10	mg/l							B-06
Potassium, Total	0.394	0.10	mg/l							B-06
Silica as SiO ₂ , Dissolved	ND	0.10	mg/l							
Sodium, Dissolved	0.854	0.50	mg/l							B-06
Sodium, Total	ND	0.50	mg/l							
Strontium, Dissolved	ND	2.0	ug/l							

LCS (W4A0592-BS1)

Analyzed: 01/17/14 09:16

Barium, Dissolved	0.196	0.0020	mg/l	0.200		98	85-115			
Boron, Dissolved	221	10	ug/l	200		110	85-115			
Calcium, Dissolved	50.8	0.100	mg/l	50.2		101	85-115			
Calcium, Total	50.8	0.100	mg/l	50.2		101	85-115			
Iron, Dissolved	192	10	ug/l	200		96	85-115			
Iron, Total	0.192	0.010	mg/l	0.200		96	85-115			
Magnesium, Dissolved	50.4	0.100	mg/l	50.0		101	85-115			
Magnesium, Total	50.4	0.100	mg/l	50.2		100	85-115			
Manganese, Dissolved	192	5.0	ug/l	200		96	85-115			
Manganese, Total	0.192	0.0050	mg/l	0.200		96	85-115			
Potassium, Dissolved	54.2	0.10	mg/l	52.0		104	85-115			
Potassium, Total	54.2	0.10	mg/l	52.0		104	85-115			
Silica as SiO ₂ , Dissolved	45.8	0.10	mg/l	43.2		106	85-115			
Sodium, Dissolved	83.8	0.50	mg/l	82.6		102	85-115			
Sodium, Total	83.8	0.50	mg/l	82.6		102	85-115			
Strontium, Dissolved	993	2.0	ug/l	1000		99	85-115			

Matrix Spike (W4A0592-MS1)

Source: 4A14064-01

Analyzed: 01/17/14 09:46

Calcium, Total	311	0.100	mg/l	50.2	254	113	70-130			
Iron, Total	3.44	0.010	mg/l	0.200	3.16	140	70-130			MS-02
Magnesium, Total	166	0.100	mg/l	50.2	111	110	70-130			
Manganese, Total	0.557	0.0050	mg/l	0.200	0.344	106	70-130			
Potassium, Total	78.0	0.10	mg/l	52.0	18.8	114	70-130			
Sodium, Total	427	0.50	mg/l	82.6	345	99	70-130			

Matrix Spike Dup (W4A0592-MSD1)

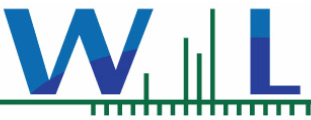
Source: 4A14064-01

Analyzed: 01/17/14 09:49

Calcium, Total	305	0.100	mg/l	50.2	254	100	70-130	2	30	
Iron, Total	3.37	0.010	mg/l	0.200	3.16	108	70-130	2	30	
Magnesium, Total	164	0.100	mg/l	50.2	111	106	70-130	1	30	
Manganese, Total	0.548	0.0050	mg/l	0.200	0.344	102	70-130	2	30	
Potassium, Total	76.6	0.10	mg/l	52.0	18.8	111	70-130	2	30	
Sodium, Total	420	0.50	mg/l	82.6	345	92	70-130	2	30	

Batch W4A0619 - EPA 200.8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/20/14 19:31										
Blank (W4A0619-BLK1)										
Aluminum, Total	ND	5.0	ug/l							



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Metals by EPA 200 Series Methods - Quality Control

Batch W4A0619 - EPA 200.8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0619-BLK1)				Analyzed: 01/20/14 19:31						
Arsenic, Total	ND	0.40	ug/l							
Copper, Total	ND	0.50	ug/l							
Zinc, Total	ND	5.0	ug/l							
LCS (W4A0619-BS1)				Analyzed: 01/20/14 19:23						
Aluminum, Total	55.0	5.0	ug/l	50.0		110	85-115			
Arsenic, Total	52.4	0.40	ug/l	50.0		105	85-115			
Copper, Total	55.0	0.50	ug/l	50.0		110	85-115			
Zinc, Total	55.6	5.0	ug/l	50.0		111	85-115			
Matrix Spike (W4A0619-MS1)				Source: 4A14003-01		Analyzed: 01/20/14 19:55				
Aluminum, Total	148	5.0	ug/l	50.0	46.8	203	70-130			MS-02
Arsenic, Total	57.2	0.40	ug/l	50.0	5.11	104	70-130			
Copper, Total	45.6	0.50	ug/l	50.0	3.36	84	70-130			
Zinc, Total	76.9	5.0	ug/l	50.0	30.9	92	70-130			
Matrix Spike Dup (W4A0619-MSD1)				Source: 4A14003-01		Analyzed: 01/20/14 20:03				
Aluminum, Total	152	5.0	ug/l	50.0	46.8	210	70-130	2	30	MS-02
Arsenic, Total	56.3	0.40	ug/l	50.0	5.11	102	70-130	2	30	
Copper, Total	45.2	0.50	ug/l	50.0	3.36	84	70-130	0.8	30	
Zinc, Total	75.2	5.0	ug/l	50.0	30.9	89	70-130	2	30	

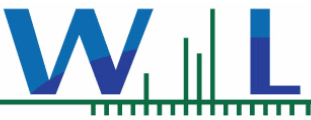
Batch W4B0893 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4B0893-BLK1)				Analyzed: 02/21/14 10:36						
Lithium, Total	ND	10	ug/l							
LCS (W4B0893-BS1)				Analyzed: 02/21/14 10:38						
Lithium, Total	1060	10	ug/l	1000		106	85-115			
Matrix Spike (W4B0893-MS1)				Source: 3L09093-01		Analyzed: 02/21/14 10:48				
Lithium, Total	1210	20	ug/l	1000	91.2	112	70-130			
Matrix Spike Dup (W4B0893-MSD1)				Source: 3L09093-01		Analyzed: 02/21/14 10:50				
Lithium, Total	1250	20	ug/l	1000	91.2	116	70-130	3	30	

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W4A0574 - EPA 525.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0574-BLK1)				Analyzed: 01/23/14 03:32						
Alachlor	ND	0.10	ug/l							
Atrazine	ND	0.10	ug/l							
Benzo (a) pyrene	ND	0.10	ug/l							
Bis(2-ethylhexyl)adipate	ND	5.0	ug/l							
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/l							



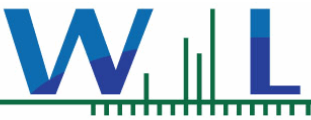
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Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W4A0574 - EPA 525.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0574-BLK1)										
Analyzed: 01/23/14 03:32										
Bromacil	ND	0.50	ug/l							
Butachlor	ND	0.10	ug/l							
Captan	ND	1.0	ug/l							
Chloroprotham	ND	0.10	ug/l							
Cyanazine	ND	0.10	ug/l							
Diazinon	ND	0.10	ug/l							
Dimethoate	ND	0.20	ug/l							
Diphenamid	ND	0.10	ug/l							
Disulfoton	ND	0.10	ug/l							
EPTC	ND	0.10	ug/l							
Metolachlor	ND	0.10	ug/l							
Metribuzin	ND	0.10	ug/l							
Molinate	ND	0.10	ug/l							
Prometon	ND	0.10	ug/l							
Prometryn	ND	0.10	ug/l							
Simazine	ND	0.10	ug/l							
Terbacil	ND	2.0	ug/l							
Thiobencarb	ND	0.10	ug/l							
Trithion	ND	0.10	ug/l							
Surr: 1,3-Dimethyl-2-nitrobenzene	5.15		ug/l	5.00		103	73-138			
Surr: Perylene-d12	4.11		ug/l	5.00		82	30-118			
Surr: Triphenyl phosphate	5.59		ug/l	5.00		112	70-149			
LCS (W4A0574-BS1)										
Analyzed: 01/23/14 03:57										
Alachlor	3.52	0.10	ug/l	5.00		70	55-124			
Atrazine	5.03	0.10	ug/l	5.00		101	67-131			
Benzo (a) pyrene	4.44	0.10	ug/l	5.00		89	40-147			
Bis(2-ethylhexyl)adipate	7.42	5.0	ug/l	5.00		148	71-158			
Bis(2-ethylhexyl)phthalate	7.36	3.0	ug/l	5.00		147	68-154			
Bromacil	3.71	0.50	ug/l	5.00		74	62-139			
Butachlor	3.91	0.10	ug/l	5.00		78	61-127			
Captan	5.69	1.0	ug/l	5.00		114	14-159			
Chloroprotham	5.35	0.10	ug/l	5.00		107	77-143			
Cyanazine	5.55	0.10	ug/l	5.00		111	61-129			
Diazinon	3.13	0.10	ug/l	5.00		63	30-120			
Dimethoate	3.52	0.20	ug/l	5.00		70	38-102			
Diphenamid	5.43	0.10	ug/l	5.00		109	77-124			
Disulfoton	4.47	0.10	ug/l	5.00		89	54-156			
EPTC	4.84	0.10	ug/l	5.00		97	82-116			
Metolachlor	3.72	0.10	ug/l	5.00		74	61-123			
Metribuzin	4.01	0.10	ug/l	5.00		80	50-121			
Molinate	4.99	0.10	ug/l	5.00		100	82-117			
Prometon	2.63	0.10	ug/l	5.00		53	17-101			
Prometryn	3.98	0.10	ug/l	5.00		80	57-122			
Simazine	3.54	0.10	ug/l	5.00		71	53-116			



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Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W4A0574 - EPA 525.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/23/14 03:57										
LCS (W4A0574-BS1)										
Terbacil	5.14	2.0	ug/l	5.00		103	70-135			
Thiobencarb	3.69	0.10	ug/l	5.00		74	56-125			
Trithion	4.44	0.10	ug/l	5.00		89	60-124			
Surr: 1,3-Dimethyl-2-nitrobenzene	4.92		ug/l	5.00		98	73-138			
Surr: Perylene-d12	9.45		ug/l	5.00		189	30-118			S-11
Surr: Triphenyl phosphate	6.75		ug/l	5.00		135	70-149			

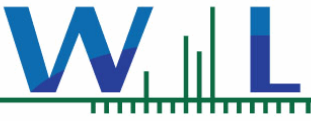
LCS Dup (W4A0574-BSD1)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/23/14 04:22										
Alachlor	3.76	0.10	ug/l	5.00		75	55-124	7	30	
Atrazine	5.39	0.10	ug/l	5.00		108	67-131	7	30	
Benzo (a) pyrene	4.25	0.10	ug/l	5.00		85	40-147	4	30	
Bis(2-ethylhexyl)adipate	7.00	5.0	ug/l	5.00		140	71-158	6	30	
Bis(2-ethylhexyl)phthalate	6.92	3.0	ug/l	5.00		138	68-154	6	30	
Bromacil	4.13	0.50	ug/l	5.00		83	62-139	11	30	
Butachlor	4.26	0.10	ug/l	5.00		85	61-127	9	30	
Captan	5.70	1.0	ug/l	5.00		114	14-159	0.2	30	
Chloroprotham	5.69	0.10	ug/l	5.00		114	77-143	6	30	
Cyanazine	5.83	0.10	ug/l	5.00		117	61-129	5	30	
Diazinon	3.46	0.10	ug/l	5.00		69	30-120	10	30	
Dimethoate	4.04	0.20	ug/l	5.00		81	38-102	14	30	
Diphenamid	5.74	0.10	ug/l	5.00		115	77-124	6	30	
Disulfoton	4.75	0.10	ug/l	5.00		95	54-156	6	30	
EPTC	5.09	0.10	ug/l	5.00		102	82-116	5	30	
Metolachlor	4.15	0.10	ug/l	5.00		83	61-123	11	30	
Metribuzin	4.32	0.10	ug/l	5.00		86	50-121	7	30	
Molinate	5.40	0.10	ug/l	5.00		108	82-117	8	30	
Prometon	2.65	0.10	ug/l	5.00		53	17-101	0.8	30	
Prometryn	4.01	0.10	ug/l	5.00		80	57-122	0.8	30	
Simazine	3.91	0.10	ug/l	5.00		78	53-116	10	30	
Terbacil	5.39	2.0	ug/l	5.00		108	70-135	5	30	
Thiobencarb	3.95	0.10	ug/l	5.00		79	56-125	7	30	
Trithion	4.92	0.10	ug/l	5.00		98	60-124	10	30	
Surr: 1,3-Dimethyl-2-nitrobenzene	5.10		ug/l	5.00		102	73-138			
Surr: Perylene-d12	9.13		ug/l	5.00		183	30-118			S-11
Surr: Triphenyl phosphate	6.62		ug/l	5.00		132	70-149			

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4A0558 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/15/14 17:33										
Blank (W4A0558-BLK1)										
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l							
1,1,1-Trichloroethane	ND	0.50	ug/l							



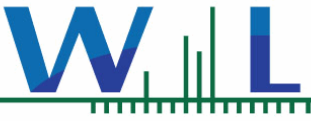
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Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:25

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4A0558 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0558-BLK1)				Analyzed: 01/15/14 17:33						
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l							
1,1,2-Trichloroethane	ND	0.50	ug/l							
1,1-Dichloroethane	ND	0.50	ug/l							
1,1-Dichloroethene	ND	0.50	ug/l							
1,1-Dichloropropene	ND	0.50	ug/l							
1,2,3-Trichlorobenzene	ND	0.50	ug/l							
1,2,3-Trichloropropane	ND	0.50	ug/l							
1,2,4-Trichlorobenzene	ND	0.50	ug/l							
1,2,4-Trimethylbenzene	ND	0.50	ug/l							
1,2-Dichloroethane	ND	0.50	ug/l							
1,2-Dichloropropane	ND	0.50	ug/l							
1,3,5-Trimethylbenzene	ND	0.50	ug/l							
1,3-Dichloropropane	ND	0.50	ug/l							
1,3-Dichloropropene, Total	ND	0.50	ug/l							
2,2-Dichloropropane	ND	0.50	ug/l							
2-Butanone	ND	5.0	ug/l							
2-Chloroethyl vinyl ether	ND	1.0	ug/l							
2-Chlorotoluene	ND	0.50	ug/l							
2-Hexanone	ND	5.0	ug/l							
4-Chlorotoluene	ND	0.50	ug/l							
4-Methyl-2-pentanone	ND	5.0	ug/l							
Benzene	ND	0.50	ug/l							
Bromobenzene	ND	0.50	ug/l							
Bromochloromethane	ND	0.50	ug/l							
Bromodichloromethane	ND	0.50	ug/l							
Bromoform	ND	0.50	ug/l							
Bromomethane	ND	0.50	ug/l							
Carbon tetrachloride	ND	0.50	ug/l							
Chlorobenzene	ND	0.50	ug/l							
Chloroethane	ND	0.50	ug/l							
Chloroform	ND	0.50	ug/l							
Chloromethane	ND	0.50	ug/l							
cis-1,2-Dichloroethene	ND	0.50	ug/l							
cis-1,3-Dichloropropene	ND	0.50	ug/l							
Dibromochloromethane	ND	0.50	ug/l							
Dibromomethane	ND	0.50	ug/l							
Dichlorodifluoromethane (Freon 12)	ND	0.50	ug/l							
Di-isopropyl ether	ND	2.0	ug/l							
Ethyl tert-butyl ether	ND	2.0	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Freon 113	ND	5.0	ug/l							
Hexachlorobutadiene	ND	0.50	ug/l							
Isopropylbenzene	ND	0.50	ug/l							
m,p-Xylene	ND	0.50	ug/l							



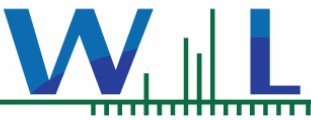
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Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4A0558 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4A0558-BLK1)										
Analyzed: 01/15/14 17:33										
m-Dichlorobenzene	ND	0.50	ug/l							
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/l							
Methylene chloride	ND	0.50	ug/l							
Naphthalene	ND	0.50	ug/l							
n-Butylbenzene	ND	0.50	ug/l							
n-Propylbenzene	ND	0.50	ug/l							
o-Dichlorobenzene	ND	0.50	ug/l							
o-Xylene	ND	0.50	ug/l							
p-Dichlorobenzene	ND	0.50	ug/l							
p-Isopropyltoluene	ND	0.50	ug/l							
sec-Butylbenzene	ND	0.50	ug/l							
Styrene	ND	0.50	ug/l							
Tert-amyl methyl ether	ND	2.0	ug/l							
tert-Butylbenzene	ND	0.50	ug/l							
Tetrachloroethene	ND	0.50	ug/l							
THMs, Total	ND	2.0	ug/l							
Toluene	ND	0.50	ug/l							
trans-1,2-Dichloroethene	ND	0.50	ug/l							
trans-1,3-Dichloropropene	ND	0.50	ug/l							
Trichloroethene	ND	0.50	ug/l							
Trichlorofluoromethane	ND	0.50	ug/l							
Vinyl chloride	ND	0.50	ug/l							
Xylenes, Total	ND	1.0	ug/l							
Surr: 1,2-Dichlorobenzene-d4	10.1		ug/l	10.0		101	70-130			
Surr: 4-Bromofluorobenzene	8.88		ug/l	10.0		89	70-130			
LCS (W4A0558-BS1)										
Analyzed: 01/15/14 15:18										
1,1,1,2-Tetrachloroethane	5.90	0.50	ug/l	6.00		98	70-130			
1,1,1-Trichloroethane	6.00	0.50	ug/l	6.00		100	70-130			
1,1,1,2-Tetrachloroethane	5.87	0.50	ug/l	6.00		98	70-130			
1,1,2-Trichloroethane	6.19	0.50	ug/l	6.00		103	70-130			
1,1-Dichloroethane	6.07	0.50	ug/l	6.00		101	70-130			
1,1-Dichloroethene	6.33	0.50	ug/l	6.00		106	70-130			
1,1-Dichloropropene	5.49	0.50	ug/l	6.00		92	70-130			
1,2,3-Trichlorobenzene	5.45	0.50	ug/l	6.00		91	70-130			
1,2,3-Trichloropropane	5.78	0.50	ug/l	6.00		96	70-130			
1,2,4-Trichlorobenzene	5.47	0.50	ug/l	6.00		91	70-130			
1,2,4-Trimethylbenzene	6.19	0.50	ug/l	6.00		103	70-130			
1,2-Dichloroethane	5.97	0.50	ug/l	6.00		100	70-130			
1,2-Dichloropropane	5.37	0.50	ug/l	6.00		90	70-130			
1,3,5-Trimethylbenzene	6.52	0.50	ug/l	6.00		109	70-130			
1,3-Dichloropropane	5.43	0.50	ug/l	6.00		90	70-130			
2,2-Dichloropropane	6.32	0.50	ug/l	6.00		105	70-130			
2-Butanone	5.62	5.0	ug/l	6.00		94	70-130			
2-Chloroethyl vinyl ether	5.57	1.0	ug/l	6.00		93	70-130			



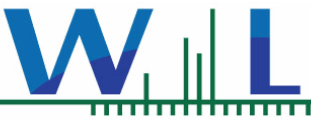
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 Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
 Date Reported: 03/06/14 09:25

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4A0558 - EPA 524.2

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
LCS (W4A0558-BS1)		Analyzed: 01/15/14 15:18								
2-Chlorotoluene	5.97	0.50	ug/l	6.00		100	70-130			
2-Hexanone	5.72	5.0	ug/l	6.00		95	70-130			
4-Chlorotoluene	5.53	0.50	ug/l	6.00		92	70-130			
4-Methyl-2-pentanone	5.84	5.0	ug/l	6.00		97	70-130			
Benzene	6.49	0.50	ug/l	6.00		108	70-130			
Bromobenzene	6.24	0.50	ug/l	6.00		104	70-130			
Bromochloromethane	6.19	0.50	ug/l	6.00		103	70-130			
Bromodichloromethane	5.62	0.50	ug/l	6.00		94	70-130			
Bromoform	5.38	0.50	ug/l	6.00		90	70-130			
Bromomethane	6.79	0.50	ug/l	6.00		113	70-130			
Carbon tetrachloride	5.87	0.50	ug/l	6.00		98	70-130			
Chlorobenzene	6.42	0.50	ug/l	6.00		107	70-130			
Chloroethane	6.51	0.50	ug/l	6.00		108	70-130			
Chloroform	6.18	0.50	ug/l	6.00		103	70-130			
Chloromethane	6.30	0.50	ug/l	6.00		105	70-130			
cis-1,2-Dichloroethene	6.35	0.50	ug/l	6.00		106	70-130			
cis-1,3-Dichloropropene	5.20	0.50	ug/l	6.00		87	70-130			
Dibromochloromethane	5.63	0.50	ug/l	6.00		94	70-130			
Dibromomethane	5.90	0.50	ug/l	6.00		98	70-130			
Dichlorodifluoromethane (Freon 12)	6.62	0.50	ug/l	6.00		110	70-130			
Di-isopropyl ether	5.82	2.0	ug/l	6.00		97	70-130			
Ethyl tert-butyl ether	6.29	2.0	ug/l	6.00		105	70-130			
Ethylbenzene	6.40	0.50	ug/l	6.00		107	70-130			
Freon 113	6.04	5.0	ug/l	6.00		101	70-130			
Hexachlorobutadiene	6.42	0.50	ug/l	6.00		107	70-130			
Isopropylbenzene	5.77	0.50	ug/l	6.00		96	70-130			
m,p-Xylene	6.36	0.50	ug/l	6.00		106	70-130			
m-Dichlorobenzene	6.40	0.50	ug/l	6.00		107	70-130			
Methyl tert-butyl ether (MTBE)	6.06	2.0	ug/l	6.00		101	70-130			
Methylene chloride	6.11	0.50	ug/l	6.00		102	70-130			
Naphthalene	5.17	0.50	ug/l	6.00		86	70-130			
n-Butylbenzene	5.52	0.50	ug/l	6.00		92	70-130			
n-Propylbenzene	5.78	0.50	ug/l	6.00		96	70-130			
o-Dichlorobenzene	6.15	0.50	ug/l	6.00		102	70-130			
o-Xylene	6.69	0.50	ug/l	6.00		112	70-130			
p-Dichlorobenzene	6.01	0.50	ug/l	6.00		100	70-130			
p-Isopropyltoluene	5.42	0.50	ug/l	6.00		90	70-130			
sec-Butylbenzene	5.20	0.50	ug/l	6.00		87	70-130			
Styrene	6.39	0.50	ug/l	6.00		106	70-130			
Tert-amyl methyl ether	5.86	2.0	ug/l	6.00		98	70-130			
tert-Butylbenzene	5.14	0.50	ug/l	6.00		86	70-130			
Tetrachloroethene	6.31	0.50	ug/l	6.00		105	70-130			
Toluene	6.47	0.50	ug/l	6.00		108	70-130			
trans-1,2-Dichloroethene	6.41	0.50	ug/l	6.00		107	70-130			



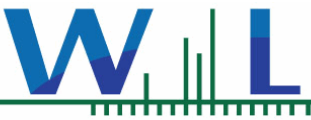
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Monterey CA, 93942-0951

Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:25

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W4A0558 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4A0558-BS1)				Analyzed: 01/15/14 15:18						
trans-1,3-Dichloropropene	5.04	0.50	ug/l	6.00		84	70-130			
Trichloroethene	6.28	0.50	ug/l	6.00		105	70-130			
Trichlorofluoromethane	6.36	0.50	ug/l	6.00		106	70-130			
Vinyl chloride	6.19	0.50	ug/l	6.00		103	70-130			
Surr: 1,2-Dichlorobenzene-d4	17.1		ug/l	10.0		171	70-130			S-BS
Surr: 4-Bromofluorobenzene	12.1		ug/l	10.0		121	70-130			
LCS Dup (W4A0558-BSD1)				Analyzed: 01/15/14 15:51						
1,1,1,2-Tetrachloroethane	5.74	0.50	ug/l	6.00		96	70-130	3	30	
1,1,1-Trichloroethane	5.77	0.50	ug/l	6.00		96	70-130	4	30	
1,1,2,2-Tetrachloroethane	5.68	0.50	ug/l	6.00		95	70-130	3	30	
1,1,2-Trichloroethane	5.89	0.50	ug/l	6.00		98	70-130	5	30	
1,1-Dichloroethane	5.92	0.50	ug/l	6.00		99	70-130	3	30	
1,1-Dichloroethene	6.27	0.50	ug/l	6.00		104	70-130	1	30	
1,1-Dichloropropene	5.36	0.50	ug/l	6.00		89	70-130	2	30	
1,2,3-Trichlorobenzene	5.37	0.50	ug/l	6.00		90	70-130	1	30	
1,2,3-Trichloropropane	5.35	0.50	ug/l	6.00		89	70-130	8	30	
1,2,4-Trichlorobenzene	5.31	0.50	ug/l	6.00		88	70-130	3	30	
1,2,4-Trimethylbenzene	6.17	0.50	ug/l	6.00		103	70-130	0.3	30	
1,2-Dichloroethane	5.91	0.50	ug/l	6.00		98	70-130	1	30	
1,2-Dichloropropane	5.32	0.50	ug/l	6.00		89	70-130	0.9	30	
1,3,5-Trimethylbenzene	6.13	0.50	ug/l	6.00		102	70-130	6	30	
1,3-Dichloropropane	5.31	0.50	ug/l	6.00		88	70-130	2	30	
2,2-Dichloropropane	6.04	0.50	ug/l	6.00		101	70-130	5	30	
2-Butanone	5.49	5.0	ug/l	6.00		92	70-130	2	30	
2-Chloroethyl vinyl ether	5.40	1.0	ug/l	6.00		90	70-130	3	30	
2-Chlorotoluene	5.46	0.50	ug/l	6.00		91	70-130	9	30	
2-Hexanone	5.65	5.0	ug/l	6.00		94	70-130	1	30	
4-Chlorotoluene	5.32	0.50	ug/l	6.00		89	70-130	4	30	
4-Methyl-2-pentanone	5.84	5.0	ug/l	6.00		97	70-130	NR	30	
Benzene	6.28	0.50	ug/l	6.00		105	70-130	3	30	
Bromobenzene	5.55	0.50	ug/l	6.00		92	70-130	12	30	
Bromochloromethane	6.11	0.50	ug/l	6.00		102	70-130	1	30	
Bromodichloromethane	5.47	0.50	ug/l	6.00		91	70-130	3	30	
Bromoform	5.31	0.50	ug/l	6.00		88	70-130	1	30	
Bromomethane	6.89	0.50	ug/l	6.00		115	70-130	1	30	
Carbon tetrachloride	5.74	0.50	ug/l	6.00		96	70-130	2	30	
Chlorobenzene	6.27	0.50	ug/l	6.00		104	70-130	2	30	
Chloroethane	6.24	0.50	ug/l	6.00		104	70-130	4	30	
Chloroform	5.99	0.50	ug/l	6.00		100	70-130	3	30	
Chloromethane	6.40	0.50	ug/l	6.00		107	70-130	2	30	
cis-1,2-Dichloroethene	6.21	0.50	ug/l	6.00		104	70-130	2	30	
cis-1,3-Dichloropropene	5.12	0.50	ug/l	6.00		85	70-130	2	30	
Dibromochloromethane	5.45	0.50	ug/l	6.00		91	70-130	3	30	
Dibromomethane	5.84	0.50	ug/l	6.00		97	70-130	1	30	



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Date Received: 01/14/14 09:15
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Volatile Organic Compounds by EPA Method 524.2 - Quality Control

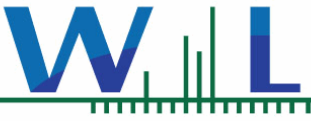
Batch W4A0558 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 01/15/14 15:51										
LCS Dup (W4A0558-BSD1)										
Dichlorodifluoromethane (Freon 12)	6.25	0.50	ug/l	6.00		104	70-130	6	30	
Di-isopropyl ether	5.81	2.0	ug/l	6.00		97	70-130	0.2	30	
Ethyl tert-butyl ether	6.30	2.0	ug/l	6.00		105	70-130	0.2	30	
Ethylbenzene	6.28	0.50	ug/l	6.00		105	70-130	2	30	
Freon 113	5.85	5.0	ug/l	6.00		98	70-130	3	30	
Hexachlorobutadiene	6.16	0.50	ug/l	6.00		103	70-130	4	30	
Isopropylbenzene	5.41	0.50	ug/l	6.00		90	70-130	6	30	
m,p-Xylene	6.18	0.50	ug/l	6.00		103	70-130	3	30	
m-Dichlorobenzene	6.36	0.50	ug/l	6.00		106	70-130	0.6	30	
Methyl tert-butyl ether (MTBE)	6.22	2.0	ug/l	6.00		104	70-130	3	30	
Methylene chloride	5.92	0.50	ug/l	6.00		99	70-130	3	30	
Naphthalene	5.05	0.50	ug/l	6.00		84	70-130	2	30	
n-Butylbenzene	5.41	0.50	ug/l	6.00		90	70-130	2	30	
n-Propylbenzene	5.22	0.50	ug/l	6.00		87	70-130	10	30	
o-Dichlorobenzene	6.01	0.50	ug/l	6.00		100	70-130	2	30	
o-Xylene	6.46	0.50	ug/l	6.00		108	70-130	3	30	
p-Dichlorobenzene	6.08	0.50	ug/l	6.00		101	70-130	1	30	
p-Isopropyltoluene	5.42	0.50	ug/l	6.00		90	70-130	NR	30	
sec-Butylbenzene	5.26	0.50	ug/l	6.00		88	70-130	1	30	
Styrene	6.22	0.50	ug/l	6.00		104	70-130	3	30	
Tert-amyl methyl ether	5.92	2.0	ug/l	6.00		99	70-130	1	30	
tert-Butylbenzene	4.72	0.50	ug/l	6.00		79	70-130	9	30	
Tetrachloroethene	6.15	0.50	ug/l	6.00		102	70-130	3	30	
Toluene	6.29	0.50	ug/l	6.00		105	70-130	3	30	
trans-1,2-Dichloroethene	6.24	0.50	ug/l	6.00		104	70-130	3	30	
trans-1,3-Dichloropropene	4.92	0.50	ug/l	6.00		82	70-130	2	30	
Trichloroethene	6.05	0.50	ug/l	6.00		101	70-130	4	30	
Trichlorofluoromethane	6.16	0.50	ug/l	6.00		103	70-130	3	30	
Vinyl chloride	6.01	0.50	ug/l	6.00		100	70-130	3	30	
Surr: 1,2-Dichlorobenzene-d4	17.4		ug/l	10.0		174	70-130			S-BS
Surr: 4-Bromofluorobenzene	11.2		ug/l	10.0		112	70-130			

EPA 1613B mod. - Quality Control

Batch 3522182 - EPA 1613B mod.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 02/26/14 00:00										
Blank (3522182-BLK)										
2,3,7,8-Tetra CDD	ND	4.2	pg/L			NR	-			S_MAXX
Surr: 37CL4 2378 Tetra CDD	288		pg/L	200		144	40-130			A3826, A1, S_MAXX
Surr: C13-2378 TetraCDD	274		pg/L	200		137	24-164			S_MAXX
Analyzed: 02/26/14 00:00										
LCS (3522182-LCS)										



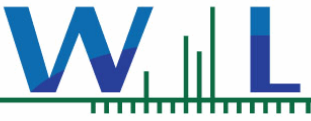
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Date Received: 01/14/14 09:15
Date Reported: 03/06/14 09:25

EPA 1613B mod. - Quality Control

Batch 3522182 - EPA 1613B mod.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (3522182-LCS)				Analyzed: 02/26/14 00:00						
2,3,7,8-Tetra CDD	194	4.2	pg/L	200		97	67-158			S_MAXX
Surr: 37CL4 2378 Tetra CDD	166		pg/L	200		83	40-130			S_MAXX
Surr: C13-2378 TetraCDD	232		pg/L	200		116	24-164			S_MAXX
LCS Dup (3522182-LCS Dup)				Analyzed: 02/26/14 00:00						
2,3,7,8-Tetra CDD	200	4.2	pg/L	200		100	67-158	2.7	25	S_MAXX
Surr: 37CL4 2378 Tetra CDD	170		pg/L	200		85	40-130			S_MAXX
Surr: C13-2378 TetraCDD	242		pg/L	200		121	24-164			S_MAXX

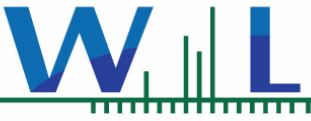


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Date Received: 01/14/14 09:15
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Notes and Definitions

- MS-05** The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- *** The recommended holding time for this analysis is only 15 minutes. The sample was analyzed as soon as it was possible but it was received and analyzed past holding time.
- **** The recommended holding time for field filtering is only 15 minutes. The sample was filtered as soon as possible but it was filtered past holding time. However, the sample was analyzed within holding time.
- A-01** Analysis subcontracted to Pace Analytical Services, Inc. NELAP Certificate 04222CA
- A1** Exceedence
- A3826** Recovery of clean-up spike meets 1613 method criteria range of 42-164%
- B-06** This analyte was found in the method blank, which was possibly contaminated during sample preparation. The batch was accepted since this analyte was either not detected or more than 10 times of the blank value for all the samples in the batch.
- S_MAXX** [Undefined]
- MS-02** The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
- S-GC** Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate.
- O-14** This analysis was requested by the client after the holding time was exceeded.
- Q-02** Low recovery of this analyte in the QC sample. The analysis of the low level standard produced acceptable recovery indicating that the sample result might be accurately reported as Not Detected.
- Q-R-01** Analyses are not controlled on RPD values from sample concentrations less than the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
- S_MAXX** Analysis subcontracted to Maxxam Analytical, Inc. NELAP Certificate 02106A
- S-11** Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
- S-BS** Surrogate recovery outside of control limits for LCS. The data was accepted based on valid recovery of the target analytes.
- M-05** Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.



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- ND** NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
- NR** Not Reportable
- Dil** Dilution
- dry** Sample results reported on a dry weight basis
- RPD** Relative Percent Difference
- % Rec** Percent Recovery
- Sub** Subcontracted analysis, original report available upon request
- MDL** Method Detection Limit
- MDA** Minimum Detectable Activity
- MRL** Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Appendix G

A3L0508

1/14/2014

Amended Report

Travis Peterson
California American Water
836 Carmel Ave.
Monterey, CA 93940

RE: Report for A3L0508 Water Quality Analysis

Dear Travis Peterson,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 12/6/2013. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Kasanna Coulter, Quality Assurance Manager

If additional clarification of any information is required, please contact your Project Manager, Michael Ng, at (800) 877-8310 or (559) 497-2888 x118.



Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: California American Water	Invoice To: California American Water
Report To: Travis Peterson	Invoice Attn: Accounts Payable
Project #: Water Quality Analysis-MPWSP	Project PO#: -
Received: 12/06/2013 - 12:43	
Report Due: 12/20/2013	

Sample Receipt Conditions

Cooler: Default Cooler
Temperature on Receipt °C: 3.3

Containers Intact
 COC/Labels Agree
 Received On Wet Ice
 Packing Material - Other
 Sample(s) were received in temperature range.
 Initial receipt at BSK-FAL

Detailed Narrative

Report Amendments

Date: 01-14-14

Initials: MSN

This amended report supersedes any previous reports issued by the laboratory. Amendments to this report are as follows: Per Andrew Kieta (GeoScience), sample description is amended to read "ML-4 Zone #1".

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- B2.0 Analyte present in the method blank above the method detection limit (MDL). Laboratory does not determine batch acceptance on detections below the reporting limit (RL).
- B2.4 Analyte detected in associated method blank below the reporting limit. Sample concentration exceeds 10x the amount present and is not materially impacted by this condition.
- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- BS3.0 BS/BSD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
- DL1.0 Sample required a dilution due to the matrix or high concentration of a non-target analyte.
- DP01 Sample Duplicate RPD exceeded the method acceptance limit.
- HT1.0 Holding time exceeded. Sample was received at the lab past holding time.
- HT1.6 Holding time exceeded. The holding time for this analysis is a recommendation and is not mandated by any state or federal agency.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- MS1.1 Matrix spike recovery exceeds upper control limit. Reported results for parent matrix may be biased high due to matrix interferences.
- MS2.1 MS/MSD RPD exceeds control limit. Reportable results in parent sample may have some degree of variability, higher than that inherent in the method.

Report Distribution

Recipient(s)	Report Format
Travis Peterson	Final.rpt
Sarp Sekeroglu	Final.rpt
Andrew Kieta	final.rpt

Certificate of Analysis

Sample ID: A3L0508-01

Sampled By: Nathan Reynolds

Sample Description: ML-4 Zone #1 (163.5-173.5 ft. bgs)

Sample Date - Time: 12/05/13 - 10:25

Matrix: Water

Sample Type: Grab

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Alkalinity as CaCO3	SM 2320 B	460	3.0	mg/L	1	A314523	12/07/13	12/07/13	
Bicarbonate as CaCO3	SM 2320 B	460	3.0	mg/L	1	A314523	12/07/13	12/07/13	
Carbonate as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A314523	12/07/13	12/07/13	
Hydroxide as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A314523	12/07/13	12/07/13	
Ammonia as N	SM 4500-NH3 G	9.5	0.10	mg/L	1	A314798	12/13/13	12/17/13	
Bromide	EPA 300.1	43	1.2	mg/L	250	A314619	12/10/13	12/10/13	
Surrogate: Dichloroacetate	EPA 300.1	112 %	<i>Acceptable range: 90-115 %</i>						
Chloride	EPA 300.0	10000	200	mg/L	200	A314503	12/06/13	12/06/13	
Color, Apparent	SM 2120 B	40	1.0	CU	1	A314478	12/06/13 18:23	12/06/13	
Conductivity @ 25C	SM 2510 B	29000	1.0	umhos/cm	1	A314523	12/07/13	12/07/13	
Fluoride	EPA 300.0	ND	10	mg/L	100	A314711	12/12/13	12/12/13	DL1.0
Mass Balance-Anions		320		meq/L					
Mass Balance-Dissolved Cations		340		meq/L					
MBAS, Calculated as LAS, mol wt 340	SM 5540 C	ND	0.050	mg/L	1	A314485	12/06/13 15:37	12/06/13	
Nitrate as NO3	EPA 300.0	ND	200	mg/L	200	A314503	12/06/13 15:00	12/06/13	DL1.0
Nitrite as N	EPA 300.0	ND	10	mg/L	200	A314503	12/06/13 15:00	12/06/13	DL1.0
Threshold Odor	SM 2150 B	1.0	1.0	T.O.N.	1	A314478	12/06/13 18:23	12/06/13	HT1.0, HT1.6
Orthophosphate as P	SM 4500-P E	0.12	0.010	mg/L	1	A314530	12/05/13 18:30	12/05/13	
pH (1)	SM 4500-H+ B	7.6		pH Units	1	A314523	12/07/13	12/07/13	
pH Temperature in °C		21.9							
Phosphorus - Dissolved (1)	EPA 365.4	ND	0.10	mg/L	1	A314666	12/11/13	12/12/13	
Sulfate as SO4	EPA 300.0	960	400	mg/L	200	A314503	12/06/13	12/06/13	
Total Dissolved Solids	SM 2540C	21000	5.0	mg/L	1	A314595	12/10/13	12/13/13	
Total Kjeldahl Nitrogen - Dissolved (1)	EPA 351.2	11	1.0	mg/L	1	A314666	12/11/13	12/17/13	
Total Oxidizable Nitrogen, as N - Dissolved (1)	SM 4500-NO3 F	ND	0.10	mg/L	1	A314815	12/13/13	12/13/13	
Turbidity	SM 2130 B	6.6	0.10	NTU	1	A314478	12/06/13 18:23	12/06/13	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.7	ND	0.050	mg/L	1	A314550	12/09/13	12/10/13	
Arsenic	EPA 200.8	ND	10	ug/L	5	A314550	12/09/13	12/18/13	
Barium - Dissolved (1)	EPA 200.7	0.084	0.050	mg/L	1	A314641	12/10/13	12/13/13	
Boron - Dissolved (1)	EPA 200.7	1.1	0.10	mg/L	1	A314641	12/10/13	12/13/13	
Calcium	EPA 200.7	860	0.10	mg/L	1	A314550	12/09/13	12/10/13	
Calcium - Dissolved (1)	EPA 200.7	850	0.10	mg/L	1	A314641	12/10/13	12/13/13	
Copper	EPA 200.8	37	25	ug/L	5	A314550	12/09/13	12/18/13	
Hardness as CaCO3	SM 2340B	6100	0.41	mg/L					
Iron	EPA 200.7	1.2	0.030	mg/L	1	A314550	12/09/13	12/10/13	
Iron - Dissolved (1)	EPA 200.7	ND	0.030	mg/L	1	A314641	12/10/13	12/13/13	
Magnesium	EPA 200.7	960	0.10	mg/L	1	A314550	12/09/13	12/10/13	

Certificate of Analysis

Sample ID: A3L0508-01
Sampled By: Nathan Reynolds
Sample Description: ML-4 Zone #1 (163.5-173.5 ft. bgs)

Sample Date - Time: 12/05/13 - 10:25
Matrix: Water
Sample Type: Grab

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Magnesium - Dissolved (1)	EPA 200.7	970	0.10	mg/L	1	A314641	12/10/13	12/13/13	
Manganese	EPA 200.7	6.4	0.010	mg/L	1	A314550	12/09/13	12/10/13	
Manganese - Dissolved (1)	EPA 200.7	6.4	0.010	mg/L	1	A314641	12/10/13	12/13/13	
Potassium - Dissolved (1)	EPA 200.7	98	2.0	mg/L	1	A314641	12/10/13	12/13/13	
Silica (SiO2) - Dissolved (1)	EPA 200.7	34	0.20	mg/L	1	A314641	12/10/13	12/13/13	
Sodium - Dissolved (1)	EPA 200.7	5000	10	mg/L	10	A314641	12/10/13	12/17/13	
Strontium - Dissolved (1)	EPA 200.8	8600	10	ug/L	10	A314641	12/10/13	12/17/13	
Zinc	EPA 200.7	ND	0.050	mg/L	1	A314550	12/09/13	12/10/13	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A314630	12/11/13	12/13/13	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A314630	12/11/13	12/13/13	
Surrogate: TCMX	EPA 504.1	80 %	<i>Acceptable range: 70-130 %</i>						
<u>Organohalide Pesticides and PCBs by GC-ECD</u>									
Aldrin	EPA 505	ND	0.075	ug/L	1	A314630	12/11/13	12/13/13	
Chlordane	EPA 505	ND	0.10	ug/L	1	A314630	12/11/13	12/13/13	
Chlorothalonil	EPA 505	ND	5.0	ug/L	1	A314630	12/11/13	12/13/13	
Dieldrin	EPA 505	ND	0.020	ug/L	1	A314630	12/11/13	12/13/13	
Endrin	EPA 505	ND	0.10	ug/L	1	A314630	12/11/13	12/13/13	
Heptachlor	EPA 505	ND	0.010	ug/L	1	A314630	12/11/13	12/13/13	
Heptachlor Epoxide	EPA 505	ND	0.010	ug/L	1	A314630	12/11/13	12/13/13	
Hexachlorobenzene	EPA 505	ND	0.50	ug/L	1	A314630	12/11/13	12/13/13	
Hexachlorocyclopentadiene	EPA 505	ND	1.0	ug/L	1	A314630	12/11/13	12/13/13	
Lindane	EPA 505	ND	0.20	ug/L	1	A314630	12/11/13	12/13/13	
Methoxychlor	EPA 505	ND	10	ug/L	1	A314630	12/11/13	12/13/13	
PCB Aroclor Screen	EPA 505	ND	0.50	ug/L	1	A314630	12/11/13	12/13/13	
Toxaphene	EPA 505	ND	1.0	ug/L	1	A314630	12/11/13	12/13/13	
Trifluralin	EPA 505	ND	1.0	ug/L	1	A314630	12/11/13	12/13/13	
Surrogate: TCMX	EPA 505	80 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A314761	12/15/13	12/17/13	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A314761	12/15/13	12/17/13	
2,4-D	EPA 515.3	ND	10	ug/L	1	A314761	12/15/13	12/17/13	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A314761	12/15/13	12/17/13	
Dalapon	EPA 515.3	ND	10	ug/L	1	A314761	12/15/13	12/17/13	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A314761	12/15/13	12/17/13	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A314761	12/15/13	12/17/13	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A314761	12/15/13	12/17/13	

Certificate of Analysis

Sample ID: A3L0508-01
Sampled By: Nathan Reynolds
Sample Description: ML-4 Zone #1 (163.5-173.5 ft. bgs)

Sample Date - Time: 12/05/13 - 10:25
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
Picloram	EPA 515.3	ND	1.0	ug/L	1	A314761	12/15/13	12/17/13	
Surrogate: DCPAA	EPA 515.3	81 %	<i>Acceptable range: 70-130 %</i>						
<u>Volatile Organics by GC-MS</u>									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A314729	12/12/13	12/12/13	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A314729	12/12/13	12/12/13	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A314729	12/12/13	12/12/13	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A314729	12/12/13	12/12/13	BS1.0
Acetone	EPA 524.2	ND	10	ug/L	1	A314729	12/12/13	12/12/13	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	

Certificate of Analysis

Sample ID: A3L0508-01
Sampled By: Nathan Reynolds
Sample Description: ML-4 Zone #1 (163.5-173.5 ft. bgs)

Sample Date - Time: 12/05/13 - 10:25
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A314729	12/12/13	12/12/13	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A314729	12/12/13	12/12/13	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A314729	12/12/13	12/12/13	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A314729	12/12/13	12/12/13	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A314729	12/12/13	12/12/13	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	96 %							<i>Acceptable range: 70-130 %</i>
Surrogate: Bromofluorobenzene	EPA 524.2	102 %							<i>Acceptable range: 70-130 %</i>
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A314794	12/13/13	12/14/13	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A314794	12/13/13	12/14/13	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A314794	12/13/13	12/14/13	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A314794	12/13/13	12/14/13	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A314794	12/13/13	12/14/13	
Bromacil	EPA 525.2	ND	10	ug/L	1	A314794	12/13/13	12/14/13	
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A314794	12/13/13	12/14/13	

Certificate of Analysis

Sample ID: A3L0508-01
Sampled By: Nathan Reynolds
Sample Description: ML-4 Zone #1 (163.5-173.5 ft. bgs)

Sample Date - Time: 12/05/13 - 10:25
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Semi-Volatile Organics by GC-MS</u>									
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A314794	12/13/13	12/14/13	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A314794	12/13/13	12/14/13	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A314794	12/13/13	12/14/13	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A314794	12/13/13	12/14/13	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A314794	12/13/13	12/14/13	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A314794	12/13/13	12/14/13	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A314794	12/13/13	12/14/13	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A314794	12/13/13	12/14/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	100 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A314582	12/09/13	12/10/13	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A314582	12/09/13	12/10/13	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A314582	12/09/13	12/10/13	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A314582	12/09/13	12/10/13	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A314582	12/09/13	12/10/13	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A314582	12/09/13	12/10/13	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A314582	12/09/13	12/10/13	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A314582	12/09/13	12/10/13	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A314544	12/09/13	12/09/13	
Surrogate: AMPA	EPA 547	94 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A314594	12/09/13	12/11/13	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A314617	12/10/13	12/16/13	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A314503

Prepared: 12/6/2013

Prep Method: Method Specific Preparation

Analyst: EMH

Blank (A314503-BLK1)

Chloride	ND	1.0	mg/L							12/06/13	
Nitrate as NO3	ND	1.0	mg/L							12/06/13	
Nitrite as N	ND	0.050	mg/L							12/06/13	
Sulfate as SO4	ND	2.0	mg/L							12/06/13	

Blank Spike (A314503-BS1)

Chloride	49	1.0	mg/L	50		99	90-110			12/06/13	
Nitrate as NO3	50	1.0	mg/L	50		100	90-110			12/06/13	
Nitrite as N	0.50	0.050	mg/L	0.50		100	90-110			12/06/13	
Sulfate as SO4	50	2.0	mg/L	50		100	90-110			12/06/13	

Blank Spike Dup (A314503-BSD1)

Chloride	49	1.0	mg/L	50		99	90-110	0	20	12/06/13	
Nitrate as NO3	50	1.0	mg/L	50		100	90-110	0	20	12/06/13	
Nitrite as N	0.50	0.050	mg/L	0.50		100	90-110	0	20	12/06/13	
Sulfate as SO4	49	2.0	mg/L	50		99	90-110	1	20	12/06/13	

Matrix Spike (A314503-MS1), Source: A3L0485-01

Chloride	120	2.0	mg/L	100	18	98	80-120			12/06/13	
Nitrate as NO3	120	2.0	mg/L	100	21	101	80-120			12/06/13	
Nitrite as N	0.97	0.10	mg/L	1.0	ND	97	80-120			12/06/13	
Sulfate as SO4	140	4.0	mg/L	100	40	97	80-120			12/06/13	

Matrix Spike (A314503-MS2), Source: A3L0511-01

Chloride	100	2.0	mg/L	100	5.9	98	80-120			12/06/13	
Nitrate as NO3	100	2.0	mg/L	100	4.6	100	80-120			12/06/13	
Nitrite as N	0.99	0.10	mg/L	1.0	ND	99	80-120			12/06/13	
Sulfate as SO4	110	4.0	mg/L	100	6.7	99	80-120			12/06/13	

Matrix Spike Dup (A314503-MSD1), Source: A3L0485-01

Chloride	120	2.0	mg/L	100	18	99	80-120	1	20	12/06/13	
Nitrate as NO3	120	2.0	mg/L	100	21	100	80-120	1	20	12/06/13	
Nitrite as N	0.97	0.10	mg/L	1.0	ND	97	80-120	0	20	12/06/13	
Sulfate as SO4	140	4.0	mg/L	100	40	99	80-120	1	20	12/06/13	

Matrix Spike Dup (A314503-MSD2), Source: A3L0511-01

Chloride	100	2.0	mg/L	100	5.9	99	80-120	0	20	12/06/13	
Nitrate as NO3	110	2.0	mg/L	100	4.6	100	80-120	0	20	12/06/13	
Nitrite as N	1.0	0.10	mg/L	1.0	ND	101	80-120	2	20	12/06/13	
Sulfate as SO4	110	4.0	mg/L	100	6.7	99	80-120	0	20	12/06/13	

EPA 300.0 - Quality Control

Batch: A314711

Prepared: 12/11/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314711-BLK1)

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A314711

Prepared: 12/11/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314711-BLK1)

Fluoride	ND	0.10	mg/L							12/11/13	
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Blank Spike (A314711-BS1)

Fluoride	0.51	0.10	mg/L	0.50		102	90-110			12/11/13	
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Blank Spike Dup (A314711-BSD1)

Fluoride	0.51	0.10	mg/L	0.50		101	90-110	1	10	12/11/13	
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Matrix Spike (A314711-MS1), Source: A3L0459-06

Fluoride	1.2	0.20	mg/L	1.0	0.23	100	80-120			12/12/13	
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Matrix Spike (A314711-MS2), Source: A3L0518-04

Fluoride	1.4	0.20	mg/L	1.0	0.37	99	80-120			12/12/13	
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Matrix Spike Dup (A314711-MSD1), Source: A3L0459-06

Fluoride	1.2	0.20	mg/L	1.0	0.23	102	80-120	2	10	12/12/13	
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Matrix Spike Dup (A314711-MSD2), Source: A3L0518-04

Fluoride	1.4	0.20	mg/L	1.0	0.37	101	80-120	2	10	12/12/13	
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EPA 300.1 - Quality Control

Batch: A314619

Prepared: 12/10/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314619-BLK1)

Bromide	ND	0.0050	mg/L							12/10/13	
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Surrogate: Dichloroacetate	0.552			0.50		110	90-115			12/10/13	
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Blank Spike (A314619-BS1)

Bromide	0.20	0.0050	mg/L	0.20		100	85-115			12/10/13	
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Surrogate: Dichloroacetate	0.507			0.50		101	90-115			12/10/13	
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Blank Spike Dup (A314619-BSD1)

Bromide	0.20	0.0050	mg/L	0.20		100	85-115	0	10	12/10/13	
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Surrogate: Dichloroacetate	0.512			0.50		102	90-115			12/10/13	
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Matrix Spike (A314619-MS1), Source: A3L0575-02

Bromide	0.23	0.010	mg/L	0.20	0.030	98	75-125			12/10/13	
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Surrogate: Dichloroacetate	1.07			1.0		107	90-115			12/10/13	
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Matrix Spike (A314619-MS2), Source: A3L0659-05

Bromide	0.24	0.010	mg/L	0.20	0.041	99	75-125			12/10/13	
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Surrogate: Dichloroacetate	1.05			1.0		105	90-115			12/10/13	
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Matrix Spike Dup (A314619-MSD1), Source: A3L0575-02

Bromide	0.23	0.010	mg/L	0.20	0.030	99	75-125	1	10	12/10/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.1 - Quality Control

Batch: A314619

Prepared: 12/10/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Matrix Spike Dup (A314619-MSD1), Source: A3L0575-02

Surrogate: Dichloroacetate 1.11 1.0 111 90-115 12/10/13

Matrix Spike Dup (A314619-MSD2), Source: A3L0659-05

Bromide 0.24 0.010 mg/L 0.20 0.041 100 75-125 0 10 12/10/13
 Surrogate: Dichloroacetate 1.12 1.0 112 90-115 12/10/13

EPA 351.2 - Quality Control

Batch: A314666

Prepared: 12/11/2013

Prep Method: Digestion

Analyst: KKC

Blank (A314666-BLK2)

Total Kjeldahl Nitrogen - Dissolved (1) ND 1.0 mg/L 12/17/13

Blank Spike (A314666-BS2)

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 102 90-110 12/17/13

Blank Spike Dup (A314666-BSD2)

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 102 90-110 0 10 12/17/13

Matrix Spike (A314666-MS2), Source: A3L0544-09

Total Kjeldahl Nitrogen - Dissolved (1) 8.1 1.0 mg/L 10 ND 81 90-110 12/17/13 MS1.0 **Low**

Matrix Spike (A314666-MS3), Source: A3L0659-05

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 ND 101 90-110 12/17/13

Matrix Spike Dup (A314666-MSD2), Source: A3L0544-09

Total Kjeldahl Nitrogen - Dissolved (1) 9.5 1.0 mg/L 10 ND 95 90-110 17 10 12/17/13 MS2.1

Matrix Spike Dup (A314666-MSD3), Source: A3L0659-05

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 ND 100 90-110 2 10 12/17/13

EPA 365.4 - Quality Control

Batch: A314666

Prepared: 12/11/2013

Prep Method: Digestion

Analyst: KKC

Blank (A314666-BLK1)

Phosphorus - Dissolved (1) ND 0.10 mg/L 12/12/13

Blank Spike (A314666-BS1)

Phosphorus - Dissolved (1) 10 0.10 mg/L 10 101 90-110 12/12/13

Blank Spike Dup (A314666-BSD1)

Phosphorus - Dissolved (1) 10 0.10 mg/L 10 103 90-110 2 10 12/12/13

Matrix Spike (A314666-MS1), Source: A3L0659-05

Phosphorus - Dissolved (1) 9.7 0.10 mg/L 10 ND 97 90-110 12/12/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 365.4 - Quality Control

Batch: A314666

Prepared: 12/11/2013

Prep Method: Digestion

Analyst: KKC

Matrix Spike Dup (A314666-MSD1), Source: A3L0659-05

Phosphorus - Dissolved (1)	9.4	0.10	mg/L	10	ND	94	90-110	3	10	12/12/13	
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SM 2120 B - Quality Control

Batch: A314478

Prepared: 12/6/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314478-BLK1)

Color, Apparent	ND	1.0	CU							12/06/13	
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Duplicate (A314478-DUP1), Source: A3L0440-01

Color, Apparent	ND	1.0	CU		ND				20	12/06/13	
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Duplicate (A314478-DUP2), Source: A3L0508-01

Color, Apparent	40	1.0	CU		40			0	20	12/06/13	
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SM 2130 B - Quality Control

Batch: A314478

Prepared: 12/6/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314478-BLK1)

Turbidity	ND	0.10	NTU							12/06/13	
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Duplicate (A314478-DUP1), Source: A3L0440-01

Turbidity	ND	0.10	NTU		ND			20	12/06/13	DP01	
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Duplicate (A314478-DUP2), Source: A3L0508-01

Turbidity	6.6	0.10	NTU		6.6			1	20	12/06/13	
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SM 2150 B - Quality Control

Batch: A314478

Prepared: 12/6/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314478-BLK1)

Threshold Odor	ND	1.0	T.O.N.							12/06/13	
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Duplicate (A314478-DUP1), Source: A3L0440-01

Threshold Odor	ND	1.0	T.O.N.		ND			20	12/06/13		
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Duplicate (A314478-DUP2), Source: A3L0508-01

Threshold Odor	1.0	1.0	T.O.N.		1.0			0	20	12/06/13	
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SM 2320 B - Quality Control

Batch: A314523

Prepared: 12/6/2013

Prep Method: Method Specific Preparation

Analyst: CEG

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2320 B - Quality Control

Batch: A314523

Prepared: 12/6/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314523-BLK1)

Alkalinity as CaCO3	ND	3.0	mg/L							12/06/13
Bicarbonate as CaCO3	ND	3.0	mg/L							12/06/13
Carbonate as CaCO3	ND	3.0	mg/L							12/06/13
Hydroxide as CaCO3	ND	3.0	mg/L							12/06/13

Blank Spike (A314523-BS1)

Alkalinity as CaCO3	100	3.0	mg/L	100		103	80-120			12/06/13
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Blank Spike Dup (A314523-BSD1)

Alkalinity as CaCO3	100	3.0	mg/L	100		102	80-120	1	20	12/06/13
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Duplicate (A314523-DUP1), Source: A3L0563-03

Alkalinity as CaCO3	23	3.0	mg/L		25			9	10	12/07/13
Bicarbonate as CaCO3	23	3.0	mg/L		25			9	10	12/07/13
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	12/07/13
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	12/07/13

Duplicate (A314523-DUP2), Source: A3L0508-01

Alkalinity as CaCO3	460	3.0	mg/L		460			0	10	12/07/13
Bicarbonate as CaCO3	460	3.0	mg/L		460			0	10	12/07/13
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	12/07/13
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	12/07/13

SM 2510 B - Quality Control

Batch: A314523

Prepared: 12/6/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314523-BLK1)

Conductivity @ 25C	ND	1.0	umhos/cm							12/06/13
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Duplicate (A314523-DUP1), Source: A3L0563-03

Conductivity @ 25C	530	1.0	umhos/cm		530			0	20	12/07/13
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Duplicate (A314523-DUP2), Source: A3L0508-01

Conductivity @ 25C	28000	1.0	umhos/cm		29000			1	20	12/07/13
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SM 2540C - Quality Control

Batch: A314595

Prepared: 12/10/2013

Prep Method: Method Specific Preparation

Analyst: DEH

Blank (A314595-BLK1)

Total Dissolved Solids	ND	5.0	mg/L							12/13/13
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Blank Spike (A314595-BS1)

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2540C - Quality Control

Batch: A314595

Prepared: 12/10/2013

Prep Method: Method Specific Preparation

Analyst: DEH

Blank Spike (A314595-BS1)

Total Dissolved Solids	990	5.0	mg/L	1000		99	70-130			12/13/13	
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Duplicate (A314595-DUP1), Source: A3L0444-02

Total Dissolved Solids	570	5.0	mg/L		570			0	20	12/13/13	
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SM 4500-H+ B - Quality Control

Batch: A314523

Prepared: 12/7/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Duplicate (A314523-DUP1), Source: A3L0563-03

pH (1)	7.2		pH Units		7.1			0	20	12/07/13	
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Duplicate (A314523-DUP2), Source: A3L0508-01

pH (1)	7.6		pH Units		7.6			0	20	12/07/13	
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SM 4500-NH3 G - Quality Control

Batch: A314798

Prepared: 12/13/2013

Prep Method: Ammonia Distillation

Analyst: KKC

Blank (A314798-BLK1)

Ammonia as N	ND	0.10	mg/L							12/17/13	B2.0
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Blank Spike (A314798-BS1)

Ammonia as N	9.6	0.10	mg/L	10		96	80-120			12/17/13	
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Blank Spike Dup (A314798-BSD1)

Ammonia as N	9.8	0.10	mg/L	10		98	80-120	2	20	12/17/13	
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Matrix Spike (A314798-MS1), Source: A3L0458-01

Ammonia as N	10	0.10	mg/L	10	0.50	97	80-120			12/17/13	
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Matrix Spike (A314798-MS2), Source: A3L0499-05

Ammonia as N	8.6	0.10	mg/L	10	0.17	85	80-120			12/17/13	
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Matrix Spike Dup (A314798-MSD1), Source: A3L0458-01

Ammonia as N	10	0.10	mg/L	10	0.50	98	80-120	1	20	12/17/13	
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Matrix Spike Dup (A314798-MSD2), Source: A3L0499-05

Ammonia as N	9.7	0.10	mg/L	10	0.17	95	80-120	11	20	12/17/13	
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SM 4500-NO3 F - Quality Control

Batch: A314815

Prepared: 12/13/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314815-BLK1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	ND	0.10	mg/L							12/13/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-NO3 F - Quality Control

Batch: A314815

Prepared: 12/13/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank Spike (A314815-BS1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	10	0.10	mg/L	10	101	80-120				12/13/13	
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Blank Spike Dup (A314815-BSD1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	10	0.10	mg/L	10	100	80-120	0	20		12/13/13	
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Matrix Spike (A314815-MS1), Source: A3L0545-01

Total Oxidizable Nitrogen, as N - Dissolved (1)	8.9	0.10	mg/L	10	1.5	73	80-120			12/13/13	MS1.0 Low
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Matrix Spike (A314815-MS2), Source: A3L0508-01

Total Oxidizable Nitrogen, as N - Dissolved (1)	9.3	0.10	mg/L	10	ND	92	80-120			12/13/13	
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Matrix Spike Dup (A314815-MSD1), Source: A3L0545-01

Total Oxidizable Nitrogen, as N - Dissolved (1)	8.9	0.10	mg/L	10	1.5	74	80-120	1	20	12/13/13	MS1.0 Low
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Matrix Spike Dup (A314815-MSD2), Source: A3L0508-01

Total Oxidizable Nitrogen, as N - Dissolved (1)	9.4	0.10	mg/L	10	ND	93	80-120	1	20	12/13/13	
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SM 4500-P E - Quality Control

Batch: A314530

Prepared: 12/5/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314530-BLK1)

Orthophosphate as P	ND	0.010	mg/L							12/05/13	
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Blank Spike (A314530-BS1)

Orthophosphate as P	0.25	0.010	mg/L	0.25	100	90-110				12/05/13	
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Blank Spike Dup (A314530-BSD1)

Orthophosphate as P	0.25	0.010	mg/L	0.25	101	90-110	0	20		12/05/13	
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Matrix Spike (A314530-MS1), Source: A3L0508-01

Orthophosphate as P	0.62	0.020	mg/L	0.50	0.12	99	80-120			12/05/13	
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Matrix Spike Dup (A314530-MSD1), Source: A3L0508-01

Orthophosphate as P	0.61	0.020	mg/L	0.50	0.12	98	80-120	1	20	12/05/13	
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SM 5540 C - Quality Control

Batch: A314485

Prepared: 12/6/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A314485-BLK1)

MBAS, Calculated as LAS, mol wt 340	ND	0.050	mg/L							12/06/13	
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Blank Spike (A314485-BS1)

MBAS, Calculated as LAS, mol wt 340	0.92	0.050	mg/L	1.0	92	80-120				12/06/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 5540 C - Quality Control

Batch: A314485

Prepared: 12/6/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank Spike Dup (A314485-BSD1)

MBAS, Calculated as LAS, mol wt 340	0.93	0.050	mg/L	1.0		93	80-120	2	20	12/06/13	
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Matrix Spike (A314485-MS1), Source: A3L0459-06

MBAS, Calculated as LAS, mol wt 340	0.99	0.050	mg/L	1.0	ND	99	80-120			12/06/13	
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Matrix Spike Dup (A314485-MSD1), Source: A3L0459-06

MBAS, Calculated as LAS, mol wt 340	1.0	0.050	mg/L	1.0	ND	103	80-120	4	20	12/06/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A314550

Prepared: 12/9/2013

Prep Method: EPA 200.2

Analyst: NRE

Blank (A314550-BLK2)

Aluminum	ND	0.050	mg/L							12/10/13	
Calcium	ND	0.10	mg/L							12/10/13	
Iron	ND	0.030	mg/L							12/10/13	
Magnesium	ND	0.10	mg/L							12/10/13	
Manganese	ND	0.010	mg/L							12/10/13	
Zinc	ND	0.050	mg/L							12/10/13	

Blank Spike (A314550-BS2)

Aluminum	0.20	0.050	mg/L	0.20		99	85-115			12/10/13	
Calcium	10	0.10	mg/L	10		104	85-115			12/10/13	
Iron	2.0	0.030	mg/L	2.0		101	85-115			12/10/13	
Magnesium	9.9	0.10	mg/L	10		99	85-115			12/10/13	
Manganese	0.20	0.010	mg/L	0.20		102	85-115			12/10/13	
Zinc	0.22	0.050	mg/L	0.20		108	85-115			12/10/13	

Blank Spike Dup (A314550-BSD2)

Aluminum	0.21	0.050	mg/L	0.20		106	85-115	7	20	12/10/13	
Calcium	11	0.10	mg/L	10		108	85-115	3	20	12/10/13	
Iron	2.1	0.030	mg/L	2.0		104	85-115	2	20	12/10/13	
Magnesium	10	0.10	mg/L	10		101	85-115	3	20	12/10/13	
Manganese	0.21	0.010	mg/L	0.20		104	85-115	2	20	12/10/13	
Zinc	0.22	0.050	mg/L	0.20		111	85-115	2	20	12/10/13	

Matrix Spike (A314550-MS3), Source: A3L0454-01

Aluminum	0.43	0.050	mg/L	0.20	0.19	122	70-130			12/10/13	
Calcium	13	0.10	mg/L	10	2.7	104	70-130			12/10/13	
Iron	2.3	0.030	mg/L	2.0	0.21	104	70-130			12/10/13	
Magnesium	11	0.10	mg/L	10	0.52	100	70-130			12/10/13	
Manganese	0.22	0.010	mg/L	0.20	0.013	103	70-130			12/10/13	
Zinc	0.23	0.050	mg/L	0.20	ND	113	70-130			12/10/13	

Matrix Spike (A314550-MS4), Source: A3L0456-02

Aluminum	0.28	0.050	mg/L	0.20	0.072	105	70-130			12/10/13	
Calcium	49	0.10	mg/L	10	37	116	70-130			12/10/13	
Iron	2.3	0.030	mg/L	2.0	0.17	104	70-130			12/10/13	
Magnesium	14	0.10	mg/L	10	3.8	102	70-130			12/10/13	
Manganese	0.25	0.010	mg/L	0.20	0.045	104	70-130			12/10/13	
Zinc	0.69	0.050	mg/L	0.20	0.45	116	70-130			12/10/13	

Matrix Spike Dup (A314550-MSD3), Source: A3L0454-01

Aluminum	0.43	0.050	mg/L	0.20	0.19	118	70-130	2	20	12/10/13	
Calcium	13	0.10	mg/L	10	2.7	104	70-130	0	20	12/10/13	
Iron	2.3	0.030	mg/L	2.0	0.21	104	70-130	0	20	12/10/13	
Magnesium	11	0.10	mg/L	10	0.52	100	70-130	0	20	12/10/13	
Manganese	0.22	0.010	mg/L	0.20	0.013	103	70-130	0	20	12/10/13	
Zinc	0.22	0.050	mg/L	0.20	ND	112	70-130	0	20	12/10/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A314550

Prepared: 12/9/2013

Prep Method: EPA 200.2

Analyst: NRE

Matrix Spike Dup (A314550-MSD4), Source: A3L0456-02

Aluminum	0.28	0.050	mg/L	0.20	0.072	102	70-130	2	20	12/10/13	
Calcium	49	0.10	mg/L	10	37	112	70-130	1	20	12/10/13	
Iron	2.2	0.030	mg/L	2.0	0.17	102	70-130	2	20	12/10/13	
Magnesium	14	0.10	mg/L	10	3.8	101	70-130	1	20	12/10/13	
Manganese	0.25	0.010	mg/L	0.20	0.045	101	70-130	3	20	12/10/13	
Zinc	0.74	0.050	mg/L	0.20	0.45	142	70-130	7	20	12/10/13	MS1.1 High

EPA 200.7 - Quality Control

Batch: A314641

Prepared: 12/10/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A314641-BLK2)

Barium - Dissolved (1)	ND	0.050	mg/L							12/13/13	
Boron - Dissolved (1)	ND	0.10	mg/L							12/13/13	
Calcium - Dissolved (1)	ND	0.10	mg/L							12/13/13	B2.4
Iron - Dissolved (1)	ND	0.030	mg/L							12/13/13	
Magnesium - Dissolved (1)	ND	0.10	mg/L							12/13/13	
Manganese - Dissolved (1)	ND	0.010	mg/L							12/13/13	
Potassium - Dissolved (1)	ND	2.0	mg/L							12/13/13	
Silica (SiO2) - Dissolved (1)	ND	0.20	mg/L							12/13/13	
Sodium - Dissolved (1)	ND	1.0	mg/L							12/13/13	

Blank Spike (A314641-BS2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		100	85-115			12/13/13	
Boron - Dissolved (1)	0.59	0.10	mg/L	0.60		99	85-115			12/13/13	
Calcium - Dissolved (1)	10	0.10	mg/L	10		102	85-115			12/13/13	
Iron - Dissolved (1)	1.9	0.030	mg/L	2.0		97	85-115			12/13/13	
Magnesium - Dissolved (1)	9.8	0.10	mg/L	10		98	85-115			12/13/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20		99	85-115			12/13/13	
Potassium - Dissolved (1)	10	2.0	mg/L	10		100	85-115			12/13/13	
Silica (SiO2) - Dissolved (1)	2.1	0.20	mg/L	2.1		97	85-115			12/13/13	
Sodium - Dissolved (1)	9.8	1.0	mg/L	10		98	85-115			12/13/13	

Blank Spike Dup (A314641-BSD2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		100	85-115	0	20	12/13/13	
Boron - Dissolved (1)	0.60	0.10	mg/L	0.60		101	85-115	2	20	12/13/13	
Calcium - Dissolved (1)	10	0.10	mg/L	10		103	85-115	1	20	12/13/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		98	85-115	1	20	12/13/13	
Magnesium - Dissolved (1)	10	0.10	mg/L	10		100	85-115	2	20	12/13/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20		99	85-115	1	20	12/13/13	
Potassium - Dissolved (1)	10	2.0	mg/L	10		101	85-115	1	20	12/13/13	
Silica (SiO2) - Dissolved (1)	2.1	0.20	mg/L	2.1		99	85-115	2	20	12/13/13	
Sodium - Dissolved (1)	10	1.0	mg/L	10		100	85-115	1	20	12/13/13	

Matrix Spike (A314641-MS3), Source: A3L0544-01

Barium - Dissolved (1)	0.21	0.050	mg/L	0.20	ND	105	70-130			12/13/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A314641

Prepared: 12/10/2013

Prep Method: Filtration - Metals

Analyst: NRE

Matrix Spike (A314641-MS3), Source: A3L0544-01

Boron - Dissolved (1)	0.62	0.10	mg/L	0.60	ND	103	70-130			12/13/13	
Calcium - Dissolved (1)	17	0.10	mg/L	10	6.5	103	70-130			12/13/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0	0.053	100	70-130			12/13/13	
Magnesium - Dissolved (1)	12	0.10	mg/L	10	2.1	100	70-130			12/13/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20	ND	102	70-130			12/13/13	
Potassium - Dissolved (1)	11	2.0	mg/L	10	ND	102	70-130			12/13/13	
Silica (SiO2) - Dissolved (1)	18	0.20	mg/L	2.1	16	105	70-130			12/13/13	
Sodium - Dissolved (1)	13	1.0	mg/L	10	3.3	100	70-130			12/13/13	

Matrix Spike (A314641-MS4), Source: A3L0544-03

Barium - Dissolved (1)	0.23	0.050	mg/L	0.20	ND	102	70-130			12/13/13	
Boron - Dissolved (1)	0.64	0.10	mg/L	0.60	ND	106	70-130			12/13/13	
Calcium - Dissolved (1)	45	0.10	mg/L	10	35	102	70-130			12/13/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.098	99	70-130			12/13/13	
Magnesium - Dissolved (1)	23	0.10	mg/L	10	13	100	70-130			12/13/13	
Manganese - Dissolved (1)	0.21	0.010	mg/L	0.20	ND	100	70-130			12/13/13	
Potassium - Dissolved (1)	13	2.0	mg/L	10	2.7	101	70-130			12/13/13	
Silica (SiO2) - Dissolved (1)	42	0.20	mg/L	2.1	40	102	70-130			12/13/13	
Sodium - Dissolved (1)	18	1.0	mg/L	10	8.5	98	70-130			12/13/13	

Matrix Spike Dup (A314641-MSD3), Source: A3L0544-01

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20	ND	101	70-130	3	20	12/13/13	
Boron - Dissolved (1)	0.61	0.10	mg/L	0.60	ND	101	70-130	2	20	12/13/13	
Calcium - Dissolved (1)	17	0.10	mg/L	10	6.5	103	70-130	0	20	12/13/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0	0.053	98	70-130	2	20	12/13/13	
Magnesium - Dissolved (1)	12	0.10	mg/L	10	2.1	100	70-130	0	20	12/13/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20	ND	100	70-130	2	20	12/13/13	
Potassium - Dissolved (1)	11	2.0	mg/L	10	ND	101	70-130	1	20	12/13/13	
Silica (SiO2) - Dissolved (1)	18	0.20	mg/L	2.1	16	112	70-130	1	20	12/13/13	
Sodium - Dissolved (1)	13	1.0	mg/L	10	3.3	99	70-130	1	20	12/13/13	

Matrix Spike Dup (A314641-MSD4), Source: A3L0544-03

Barium - Dissolved (1)	0.23	0.050	mg/L	0.20	ND	101	70-130	1	20	12/13/13	
Boron - Dissolved (1)	0.64	0.10	mg/L	0.60	ND	107	70-130	1	20	12/13/13	
Calcium - Dissolved (1)	45	0.10	mg/L	10	35	96	70-130	1	20	12/13/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.098	99	70-130	0	20	12/13/13	
Magnesium - Dissolved (1)	23	0.10	mg/L	10	13	98	70-130	1	20	12/13/13	
Manganese - Dissolved (1)	0.21	0.010	mg/L	0.20	ND	101	70-130	0	20	12/13/13	
Potassium - Dissolved (1)	13	2.0	mg/L	10	2.7	100	70-130	0	20	12/13/13	
Silica (SiO2) - Dissolved (1)	41	0.20	mg/L	2.1	40	76	70-130	1	20	12/13/13	
Sodium - Dissolved (1)	18	1.0	mg/L	10	8.5	96	70-130	1	20	12/13/13	

EPA 200.8 - Quality Control

Batch: A314550

Prepared: 12/9/2013

Prep Method: EPA 200.2

Analyst: MAS

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.8 - Quality Control

Batch: A314550

Prepared: 12/9/2013

Prep Method: EPA 200.2

Analyst: MAS

Blank (A314550-BLK1)

Arsenic	ND	2.0	ug/L							12/17/13	
Copper	ND	5.0	ug/L							12/17/13	

Blank Spike (A314550-BS1)

Arsenic	200	2.0	ug/L	200		101	85-115			12/17/13	
Copper	200	5.0	ug/L	200		98	85-115			12/17/13	

Blank Spike Dup (A314550-BSD1)

Arsenic	200	2.0	ug/L	200		102	85-115	1	20	12/17/13	
Copper	200	5.0	ug/L	200		99	85-115	1	20	12/17/13	

Matrix Spike (A314550-MS1), Source: A3L0454-01

Arsenic	200	2.0	ug/L	200	ND	99	70-130			12/17/13	
Copper	190	5.0	ug/L	200	ND	96	70-130			12/17/13	

Matrix Spike (A314550-MS2), Source: A3L0456-02

Arsenic	210	2.0	ug/L	200	5.9	101	70-130			12/17/13	
Copper	200	5.0	ug/L	200	10	94	70-130			12/17/13	

Matrix Spike Dup (A314550-MSD1), Source: A3L0454-01

Arsenic	200	2.0	ug/L	200	ND	98	70-130	0	20	12/17/13	
Copper	200	5.0	ug/L	200	ND	98	70-130	2	20	12/17/13	

Matrix Spike Dup (A314550-MSD2), Source: A3L0456-02

Arsenic	200	2.0	ug/L	200	5.9	98	70-130	3	20	12/17/13	
Copper	200	5.0	ug/L	200	10	93	70-130	1	20	12/17/13	

EPA 200.8 - Quality Control

Batch: A314641

Prepared: 12/10/2013

Prep Method: Filtration - Metals

Analyst: MAS

Blank (A314641-BLK1)

Strontium - Dissolved (1)	ND	1.0	ug/L							12/17/13	
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Blank Spike (A314641-BS1)

Strontium - Dissolved (1)	210	1.0	ug/L	200		103	85-115			12/17/13	
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Blank Spike Dup (A314641-BSD1)

Strontium - Dissolved (1)	200	1.0	ug/L	200		101	85-115	2	20	12/17/13	
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Matrix Spike (A314641-MS1), Source: A3L0544-01

Strontium - Dissolved (1)	260	1.0	ug/L	200	59	102	70-130			12/17/13	
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Matrix Spike Dup (A314641-MSD1), Source: A3L0544-01

Strontium - Dissolved (1)	250	1.0	ug/L	200	59	98	70-130	3	20	12/17/13	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A314630

Prepared: 12/10/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A314630-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							12/12/13	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							12/12/13	
Surrogate: TCMX	4.5			4.5		102	70-130			12/12/13	

Blank Spike (A314630-BS1)

Dibromochloropropane (DBCP)	0.19	0.010	ug/L	0.20		94	70-130			12/12/13	
Ethylene Dibromide (EDB)	0.17	0.020	ug/L	0.20		87	70-130			12/12/13	
Surrogate: TCMX	4.1			4.5		93	70-130			12/12/13	

Blank Spike Dup (A314630-BSD1)

Dibromochloropropane (DBCP)	0.19	0.010	ug/L	0.20		97	70-130	3	20	12/12/13	
Ethylene Dibromide (EDB)	0.18	0.020	ug/L	0.20		89	70-130	2	20	12/12/13	
Surrogate: TCMX	4.2			4.5		94	70-130			12/12/13	

Matrix Spike (A314630-MS1), Source: A3L0420-01

Dibromochloropropane (DBCP)	0.36	0.010	ug/L	0.21	0.18	88	65-135			12/12/13	
Ethylene Dibromide (EDB)	0.20	0.020	ug/L	0.21	ND	96	65-135			12/12/13	
Surrogate: TCMX	4.5			4.6		98	70-130			12/12/13	

Matrix Spike Dup (A314630-MSD1), Source: A3L0420-01

Dibromochloropropane (DBCP)	0.41	0.010	ug/L	0.21	0.18	114	65-135	14	20	12/12/13	
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.21	ND	99	65-135	3	20	12/12/13	
Surrogate: TCMX	4.8			4.6		105	70-130			12/12/13	

EPA 505 - Quality Control

Batch: A314630

Prepared: 12/10/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A314630-BLK1)

Aldrin	ND	0.075	ug/L							12/12/13	
Chlordane	ND	0.10	ug/L							12/12/13	
Chlorothalonil	ND	5.0	ug/L							12/12/13	
Dieldrin	ND	0.020	ug/L							12/12/13	
Endrin	ND	0.10	ug/L							12/12/13	
Heptachlor	ND	0.010	ug/L							12/12/13	
Heptachlor Epoxide	ND	0.010	ug/L							12/12/13	
Hexachlorobenzene	ND	0.50	ug/L							12/12/13	
Hexachlorocyclopentadiene	ND	1.0	ug/L							12/12/13	
Lindane	ND	0.20	ug/L							12/12/13	
Methoxychlor	ND	10	ug/L							12/12/13	
PCB Aroclor Screen	ND	0.50	ug/L							12/12/13	
Toxaphene	ND	1.0	ug/L							12/12/13	
Trifluralin	ND	1.0	ug/L							12/12/13	
Surrogate: TCMX	4.5			4.5		102	70-130			12/12/13	

Blank Spike (A314630-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A314630

Prepared: 12/10/2013

Prep Method: EPA 505

Analyst: GAK

Blank Spike (A314630-BS1)

Aldrin	0.89	0.075	ug/L	1.0		89	70-130			12/12/13	
Chlorothalonil	10	5.0	ug/L	10		102	70-130			12/12/13	
Dieldrin	0.41	0.020	ug/L	0.40		102	70-130			12/12/13	
Endrin	0.19	0.10	ug/L	0.20		96	70-130			12/12/13	
Heptachlor	0.18	0.010	ug/L	0.20		90	70-130			12/12/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20		100	70-130			12/12/13	
Hexachlorobenzene	1.9	0.50	ug/L	2.0		95	70-130			12/12/13	
Hexachlorocyclopentadiene	1.7	1.0	ug/L	2.0		84	70-130			12/12/13	
Lindane	0.39	0.20	ug/L	0.40		96	70-130			12/12/13	
Methoxychlor	2.2	10	ug/L	2.0		109	70-130			12/12/13	
Trifluralin	1.9	1.0	ug/L	2.0		95	70-130			12/12/13	
Surrogate: TCMX	4.1			4.5		93	70-130			12/12/13	

Blank Spike Dup (A314630-BSD1)

Aldrin	0.88	0.075	ug/L	1.0		88	70-130	0	20	12/12/13	
Chlorothalonil	10	5.0	ug/L	10		100	70-130	2	20	12/12/13	
Dieldrin	0.40	0.020	ug/L	0.40		101	70-130	1	20	12/12/13	
Endrin	0.20	0.10	ug/L	0.20		99	70-130	3	20	12/12/13	
Heptachlor	0.18	0.010	ug/L	0.20		91	70-130	1	20	12/12/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20		98	70-130	2	20	12/12/13	
Hexachlorobenzene	1.9	0.50	ug/L	2.0		96	70-130	2	20	12/12/13	
Hexachlorocyclopentadiene	1.7	1.0	ug/L	2.0		83	70-130	1	20	12/12/13	
Lindane	0.41	0.20	ug/L	0.40		102	70-130	6	20	12/12/13	
Methoxychlor	2.1	10	ug/L	2.0		106	70-130	3	20	12/12/13	
Trifluralin	1.9	1.0	ug/L	2.0		95	70-130	0	20	12/12/13	
Surrogate: TCMX	4.2			4.5		94	70-130			12/12/13	

Matrix Spike (A314630-MS1), Source: A3L0420-01

Aldrin	0.97	0.075	ug/L	1.0	ND	93	65-135			12/12/13	
Chlorothalonil	10	5.0	ug/L	10	ND	101	65-135			12/12/13	
Dieldrin	0.42	0.020	ug/L	0.41	ND	101	65-135			12/12/13	
Endrin	0.21	0.10	ug/L	0.21	ND	101	65-135			12/12/13	
Heptachlor	0.20	0.010	ug/L	0.21	ND	96	65-135			12/12/13	
Heptachlor Epoxide	0.21	0.010	ug/L	0.21	ND	104	65-135			12/12/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.1	ND	101	65-135			12/12/13	
Hexachlorocyclopentadiene	1.8	1.0	ug/L	2.1	ND	84	65-135			12/12/13	
Lindane	0.43	0.20	ug/L	0.41	ND	104	65-135			12/12/13	
Methoxychlor	2.2	10	ug/L	2.1	ND	107	65-135			12/12/13	
Trifluralin	2.1	1.0	ug/L	2.1	ND	100	65-135			12/12/13	
Surrogate: TCMX	4.5			4.6		98	70-130			12/12/13	

Matrix Spike Dup (A314630-MSD1), Source: A3L0420-01

Aldrin	1.0	0.075	ug/L	1.0	ND	99	65-135	6	20	12/12/13	
Chlorothalonil	12	5.0	ug/L	10	ND	112	65-135	10	20	12/12/13	
Dieldrin	0.47	0.020	ug/L	0.42	ND	113	65-135	11	20	12/12/13	
Endrin	0.23	0.10	ug/L	0.21	ND	108	65-135	7	20	12/12/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A314630

Prepared: 12/11/2013

Prep Method: EPA 505

Analyst: GAK

Matrix Spike Dup (A314630-MSD1), Source: A3L0420-01

Heptachlor	0.22	0.010	ug/L	0.21	ND	105	65-135	9	20	12/12/13	
Heptachlor Epoxide	0.23	0.010	ug/L	0.21	ND	113	65-135	9	20	12/12/13	
Hexachlorobenzene	2.3	0.50	ug/L	2.1	ND	110	65-135	9	20	12/12/13	
Hexachlorocyclopentadiene	1.7	1.0	ug/L	2.1	ND	81	65-135	3	20	12/12/13	
Lindane	0.48	0.20	ug/L	0.42	ND	115	65-135	10	20	12/12/13	
Methoxychlor	2.4	10	ug/L	2.1	ND	116	65-135	8	20	12/12/13	
Trifluralin	2.2	1.0	ug/L	2.1	ND	108	65-135	8	20	12/12/13	
Surrogate: TCMX	4.8			4.6		105	70-130			12/12/13	

EPA 515.3 - Quality Control

Batch: A314761

Prepared: 12/15/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank (A314761-BLK1)

2,4,5-T	ND	1.0	ug/L							12/16/13	
2,4,5-TP (Silvex)	ND	1.0	ug/L							12/16/13	
2,4-D	ND	10	ug/L							12/16/13	
Bentazon	ND	2.0	ug/L							12/16/13	
Dalapon	ND	10	ug/L							12/16/13	
Dicamba	ND	1.5	ug/L							12/16/13	B2.0
Dinoseb	ND	2.0	ug/L							12/16/13	
Pentachlorophenol	ND	0.20	ug/L							12/16/13	
Picloram	ND	1.0	ug/L							12/16/13	
Surrogate: DCPAA	45			58		78	70-130			12/16/13	

Blank Spike (A314761-BS1)

2,4,5-T	4.1	1.0	ug/L	4.0		102	70-130			12/16/13	
2,4,5-TP (Silvex)	0.80	1.0	ug/L	0.80		100	70-130			12/16/13	
2,4-D	0.41	10	ug/L	0.40		102	70-130			12/16/13	
Bentazon	8.4	2.0	ug/L	8.0		105	70-130			12/16/13	
Dalapon	4.0	10	ug/L	4.0		99	70-130			12/16/13	
Dicamba	5.9	1.5	ug/L	6.0		98	70-130			12/16/13	
Dinoseb	0.80	2.0	ug/L	0.80		99	70-130			12/16/13	
Pentachlorophenol	0.15	0.20	ug/L	0.16		93	70-130			12/16/13	
Picloram	0.40	1.0	ug/L	0.40		100	70-130			12/16/13	
Surrogate: DCPAA	46			58		79	70-130			12/16/13	

Blank Spike Dup (A314761-BSD1)

2,4,5-T	3.9	1.0	ug/L	4.0		98	70-130	4	20	12/17/13	
2,4,5-TP (Silvex)	0.77	1.0	ug/L	0.80		96	70-130	3	20	12/17/13	
2,4-D	0.39	10	ug/L	0.40		97	70-130	5	20	12/17/13	
Bentazon	8.1	2.0	ug/L	8.0		101	70-130	4	20	12/17/13	
Dalapon	3.6	10	ug/L	4.0		89	70-130	11	20	12/17/13	
Dicamba	5.6	1.5	ug/L	6.0		93	70-130	6	20	12/17/13	
Dinoseb	0.79	2.0	ug/L	0.80		99	70-130	1	20	12/17/13	
Pentachlorophenol	0.15	0.20	ug/L	0.16		91	70-130	2	20	12/17/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A314761

Prepared: 12/15/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A314761-BSD1)

Picloram	0.31	1.0	ug/L	0.40		77	70-130	26	20	12/17/13	BS3.0
Surrogate: DCPAA	45			58		77	70-130			12/17/13	

Matrix Spike (A314761-MS1), Source: A3L0661-01

2,4,5-T	4.3	1.0	ug/L	4.0	ND	108	70-130			12/16/13	
2,4,5-TP (Silvex)	0.81	1.0	ug/L	0.80	ND	101	70-130			12/16/13	
2,4-D	0.43	10	ug/L	0.40	ND	107	70-130			12/16/13	
Bentazon	8.6	2.0	ug/L	8.0	ND	108	70-130			12/16/13	
Dalapon	4.2	10	ug/L	4.0	ND	104	70-130			12/16/13	
Dicamba	6.3	1.5	ug/L	6.0	ND	105	70-130			12/16/13	
Dinoseb	0.80	2.0	ug/L	0.80	ND	100	70-130			12/16/13	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	93	70-130			12/16/13	
Picloram	0.44	1.0	ug/L	0.40	ND	109	70-130			12/16/13	
Surrogate: DCPAA	47			58		81	70-130			12/16/13	

Matrix Spike Dup (A314761-MSD1), Source: A3L0661-01

2,4,5-T	4.4	1.0	ug/L	4.0	ND	109	70-130	1	20	12/16/13	
2,4,5-TP (Silvex)	0.82	1.0	ug/L	0.80	ND	103	70-130	2	20	12/16/13	
2,4-D	0.43	10	ug/L	0.40	ND	108	70-130	1	20	12/16/13	
Bentazon	8.7	2.0	ug/L	8.0	ND	109	70-130	1	20	12/16/13	
Dalapon	4.6	10	ug/L	4.0	ND	115	70-130	10	20	12/16/13	
Dicamba	6.5	1.5	ug/L	6.0	ND	108	70-130	3	20	12/16/13	
Dinoseb	0.84	2.0	ug/L	0.80	ND	105	70-130	5	20	12/16/13	
Pentachlorophenol	0.15	0.20	ug/L	0.16	ND	96	70-130	3	20	12/16/13	
Picloram	0.45	1.0	ug/L	0.40	ND	111	70-130	2	20	12/16/13	
Surrogate: DCPAA	48			58		82	70-130			12/16/13	

EPA 524.2 - Quality Control

Batch: A314729

Prepared: 12/12/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A314729-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							12/12/13	
1,1,1-Trichloroethane	ND	0.50	ug/L							12/12/13	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							12/12/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							12/12/13	
1,1,2-Trichloroethane	ND	0.50	ug/L							12/12/13	
1,1-Dichloroethane	ND	0.50	ug/L							12/12/13	
1,1-Dichloroethene	ND	0.50	ug/L							12/12/13	
1,1-Dichloropropene	ND	0.50	ug/L							12/12/13	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							12/12/13	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							12/12/13	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							12/12/13	
1,2-Dichlorobenzene	ND	0.50	ug/L							12/12/13	
1,2-Dichloroethane	ND	0.50	ug/L							12/12/13	
1,2-Dichloropropane	ND	0.50	ug/L							12/12/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314729

Prepared: 12/12/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A314729-BLK1)

1,3,5-Trimethylbenzene	ND	0.50	ug/L							12/12/13	
1,3-Dichlorobenzene	ND	0.50	ug/L							12/12/13	
1,3-Dichloropropane	ND	0.50	ug/L							12/12/13	
1,4-Dichlorobenzene	ND	0.50	ug/L							12/12/13	
2,2-Dichloropropane	ND	0.50	ug/L							12/12/13	
2-Butanone	ND	5.0	ug/L							12/12/13	
2-Chlorotoluene	ND	0.50	ug/L							12/12/13	
2-Hexanone	ND	10	ug/L							12/12/13	
4-Chlorotoluene	ND	0.50	ug/L							12/12/13	
4-Methyl-2-pentanone	ND	5.0	ug/L							12/12/13	
Acetone	ND	10	ug/L							12/12/13	
Benzene	ND	0.50	ug/L							12/12/13	
Bromobenzene	ND	0.50	ug/L							12/12/13	
Bromochloromethane	ND	0.50	ug/L							12/12/13	
Bromodichloromethane	ND	0.50	ug/L							12/12/13	
Bromoform	ND	0.50	ug/L							12/12/13	
Bromomethane	ND	0.50	ug/L							12/12/13	
Carbon Tetrachloride	ND	0.50	ug/L							12/12/13	
Chlorobenzene	ND	0.50	ug/L							12/12/13	
Chloroethane	ND	0.50	ug/L							12/12/13	
Chloroform	ND	0.50	ug/L							12/12/13	
Chloromethane	ND	0.50	ug/L							12/12/13	
cis-1,2-Dichloroethene	ND	0.50	ug/L							12/12/13	
cis-1,3-Dichloropropene	ND	0.50	ug/L							12/12/13	
Dibromochloromethane	ND	0.50	ug/L							12/12/13	
Dibromomethane	ND	0.50	ug/L							12/12/13	
Dichlorodifluoromethane	ND	0.50	ug/L							12/12/13	
Dichloromethane	ND	0.50	ug/L							12/12/13	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							12/12/13	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							12/12/13	
Ethylbenzene	ND	0.50	ug/L							12/12/13	
Hexachlorobutadiene	ND	0.50	ug/L							12/12/13	
Isopropylbenzene	ND	0.50	ug/L							12/12/13	
m,p-Xylenes	ND	0.50	ug/L							12/12/13	
Methyl-t-butyl ether	ND	0.50	ug/L							12/12/13	
Naphthalene	ND	0.50	ug/L							12/12/13	
n-Butylbenzene	ND	0.50	ug/L							12/12/13	
n-Propylbenzene	ND	0.50	ug/L							12/12/13	
o-Xylene	ND	0.50	ug/L							12/12/13	
p-Isopropyltoluene	ND	0.50	ug/L							12/12/13	
sec-Butylbenzene	ND	0.50	ug/L							12/12/13	
Styrene	ND	0.50	ug/L							12/12/13	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							12/12/13	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							12/12/13	
tert-Butylbenzene	ND	0.50	ug/L							12/12/13	
Tetrachloroethene (PCE)	ND	0.50	ug/L							12/12/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314729

Prepared: 12/12/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A314729-BLK1)

Toluene	ND	0.50	ug/L							12/12/13	
trans-1,2-Dichloroethene	ND	0.50	ug/L							12/12/13	
trans-1,3-Dichloropropene	ND	0.50	ug/L							12/12/13	
Trichloroethene (TCE)	ND	0.50	ug/L							12/12/13	
Trichlorofluoromethane	ND	5.0	ug/L							12/12/13	
Vinyl Chloride	ND	0.50	ug/L							12/12/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		97	70-130			12/12/13	
Surrogate: Bromofluorobenzene	50			50		100	70-130			12/12/13	

Blank Spike (A314729-BS1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		102	70-130			12/12/13	
1,1,1-Trichloroethane	11	0.50	ug/L	10		110	70-130			12/12/13	
1,1,2,2-Tetrachloroethane	10	0.50	ug/L	10		104	70-130			12/12/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	11	10	ug/L	10		110	70-130			12/12/13	
1,1,2-Trichloroethane	10	0.50	ug/L	10		103	70-130			12/12/13	
1,1-Dichloroethane	10	0.50	ug/L	10		105	70-130			12/12/13	
1,1-Dichloroethene	11	0.50	ug/L	10		107	70-130			12/12/13	
1,1-Dichloropropene	10	0.50	ug/L	10		105	70-130			12/12/13	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		105	70-130			12/12/13	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		108	70-130			12/12/13	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		104	70-130			12/12/13	
1,2-Dichlorobenzene	10	0.50	ug/L	10		104	70-130			12/12/13	
1,2-Dichloroethane	11	0.50	ug/L	10		112	70-130			12/12/13	
1,2-Dichloropropane	10	0.50	ug/L	10		104	70-130			12/12/13	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		108	70-130			12/12/13	
1,3-Dichlorobenzene	10	0.50	ug/L	10		104	70-130			12/12/13	
1,3-Dichloropropane	10	0.50	ug/L	10		104	70-130			12/12/13	
1,4-Dichlorobenzene	10	0.50	ug/L	10		105	70-130			12/12/13	
2,2-Dichloropropane	11	0.50	ug/L	10		113	70-130			12/12/13	
2-Butanone	10	5.0	ug/L	10		105	70-130			12/12/13	
2-Chlorotoluene	10	0.50	ug/L	10		105	70-130			12/12/13	
2-Hexanone	10	10	ug/L	10		102	70-130			12/12/13	
4-Chlorotoluene	11	0.50	ug/L	10		108	70-130			12/12/13	
4-Methyl-2-pentanone	13	5.0	ug/L	10		129	70-130			12/12/13	
Acetone	10	10	ug/L	10		102	70-130			12/12/13	
Benzene	11	0.50	ug/L	10		109	70-130			12/12/13	
Bromobenzene	11	0.50	ug/L	10		107	70-130			12/12/13	
Bromochloromethane	11	0.50	ug/L	10		106	70-130			12/12/13	
Bromodichloromethane	10	0.50	ug/L	10		105	70-130			12/12/13	
Bromoform	11	0.50	ug/L	10		106	70-130			12/12/13	
Bromomethane	11	0.50	ug/L	10		112	70-130			12/12/13	
Carbon Tetrachloride	11	0.50	ug/L	10		108	70-130			12/12/13	
Chlorobenzene	10	0.50	ug/L	10		104	70-130			12/12/13	
Chloroethane	11	0.50	ug/L	10		108	70-130			12/12/13	
Chloroform	11	0.50	ug/L	10		105	70-130			12/12/13	
Chloromethane	11	0.50	ug/L	10		110	70-130			12/12/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314729

Prepared: 12/12/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A314729-BS1)

cis-1,2-Dichloroethene	11	0.50	ug/L	10		110	70-130			12/12/13	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		110	70-130			12/12/13	
Dibromochloromethane	10	0.50	ug/L	10		101	70-130			12/12/13	
Dibromomethane	11	0.50	ug/L	10		106	70-130			12/12/13	
Dichlorodifluoromethane	10	0.50	ug/L	10		104	70-130			12/12/13	
Dichloromethane	11	0.50	ug/L	10		106	70-130			12/12/13	
Di-isopropyl ether (DIPE)	10	3.0	ug/L	10		103	70-130			12/12/13	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		105	70-130			12/12/13	
Ethylbenzene	11	0.50	ug/L	10		106	70-130			12/12/13	
Hexachlorobutadiene	11	0.50	ug/L	10		109	70-130			12/12/13	
Isopropylbenzene	10	0.50	ug/L	10		105	70-130			12/12/13	
m,p-Xylenes	21	0.50	ug/L	20		105	70-130			12/12/13	
Methyl-t-butyl ether	21	0.50	ug/L	20		104	70-130			12/12/13	
Naphthalene	10	0.50	ug/L	10		104	70-130			12/12/13	
n-Butylbenzene	11	0.50	ug/L	10		107	70-130			12/12/13	
n-Propylbenzene	11	0.50	ug/L	10		105	70-130			12/12/13	
o-Xylene	10	0.50	ug/L	10		105	70-130			12/12/13	
p-Isopropyltoluene	11	0.50	ug/L	10		105	70-130			12/12/13	
sec-Butylbenzene	11	0.50	ug/L	10		105	70-130			12/12/13	
Styrene	8.9	0.50	ug/L	10		89	70-130			12/12/13	
tert-Amyl Methyl Ether (TAME)	10	3.0	ug/L	10		104	70-130			12/12/13	
tert-Butyl alcohol (TBA)	12	2.0	ug/L	10		118	70-130			12/12/13	
tert-Butylbenzene	11	0.50	ug/L	10		105	70-130			12/12/13	
Tetrachloroethene (PCE)	11	0.50	ug/L	10		105	70-130			12/12/13	
Toluene	11	0.50	ug/L	10		106	70-130			12/12/13	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		106	70-130			12/12/13	
trans-1,3-Dichloropropene	10	0.50	ug/L	10		105	70-130			12/12/13	
Trichloroethene (TCE)	10	0.50	ug/L	10		104	70-130			12/12/13	
Trichlorofluoromethane	11	5.0	ug/L	10		108	70-130			12/12/13	
Vinyl Chloride	11	0.50	ug/L	10		108	70-130			12/12/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.9			5.0		99	70-130			12/12/13	
Surrogate: Bromofluorobenzene	50			50		100	70-130			12/12/13	

Blank Spike Dup (A314729-BSD1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		100	70-130	2	30	12/12/13	
1,1,1-Trichloroethane	10	0.50	ug/L	10		104	70-130	6	30	12/12/13	
1,1,2,2-Tetrachloroethane	10	0.50	ug/L	10		103	70-130	1	30	12/12/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	11	10	ug/L	10		110	70-130	0	30	12/12/13	
1,1,2-Trichloroethane	10	0.50	ug/L	10		101	70-130	2	30	12/12/13	
1,1-Dichloroethane	10	0.50	ug/L	10		102	70-130	3	30	12/12/13	
1,1-Dichloroethene	10	0.50	ug/L	10		105	70-130	2	30	12/12/13	
1,1-Dichloropropene	10	0.50	ug/L	10		104	70-130	1	30	12/12/13	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		102	70-130	3	30	12/12/13	
1,2,4-Trichlorobenzene	10	0.50	ug/L	10		104	70-130	4	30	12/12/13	
1,2,4-Trimethylbenzene	10	0.50	ug/L	10		102	70-130	2	30	12/12/13	
1,2-Dichlorobenzene	10	0.50	ug/L	10		102	70-130	2	30	12/12/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314729

Prepared: 12/12/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A314729-BSD1)

1,2-Dichloroethane	11	0.50	ug/L	10		108	70-130	3	30	12/12/13	
1,2-Dichloropropane	10	0.50	ug/L	10		101	70-130	2	30	12/12/13	
1,3,5-Trimethylbenzene	10	0.50	ug/L	10		105	70-130	3	30	12/12/13	
1,3-Dichlorobenzene	10	0.50	ug/L	10		101	70-130	2	30	12/12/13	
1,3-Dichloropropane	10	0.50	ug/L	10		102	70-130	2	30	12/12/13	
1,4-Dichlorobenzene	10	0.50	ug/L	10		102	70-130	3	30	12/12/13	
2,2-Dichloropropane	11	0.50	ug/L	10		106	70-130	7	30	12/12/13	
2-Butanone	11	5.0	ug/L	10		114	70-130	8	30	12/12/13	
2-Chlorotoluene	10	0.50	ug/L	10		103	70-130	2	30	12/12/13	
2-Hexanone	10	10	ug/L	10		104	70-130	2	30	12/12/13	
4-Chlorotoluene	10	0.50	ug/L	10		104	70-130	4	30	12/12/13	
4-Methyl-2-pentanone	13	5.0	ug/L	10		131	70-130	2	30	12/12/13	BS High
Acetone	10	10	ug/L	10		102	70-130	1	30	12/12/13	
Benzene	11	0.50	ug/L	10		108	70-130	1	30	12/12/13	
Bromobenzene	11	0.50	ug/L	10		106	70-130	1	30	12/12/13	
Bromochloromethane	10	0.50	ug/L	10		100	70-130	6	30	12/12/13	
Bromodichloromethane	10	0.50	ug/L	10		101	70-130	3	30	12/12/13	
Bromoform	10	0.50	ug/L	10		104	70-130	2	30	12/12/13	
Bromomethane	11	0.50	ug/L	10		110	70-130	2	30	12/12/13	
Carbon Tetrachloride	11	0.50	ug/L	10		105	70-130	3	30	12/12/13	
Chlorobenzene	10	0.50	ug/L	10		102	70-130	2	30	12/12/13	
Chloroethane	10	0.50	ug/L	10		102	70-130	6	30	12/12/13	
Chloroform	10	0.50	ug/L	10		102	70-130	3	30	12/12/13	
Chloromethane	9.5	0.50	ug/L	10		95	70-130	14	30	12/12/13	
cis-1,2-Dichloroethene	11	0.50	ug/L	10		106	70-130	3	30	12/12/13	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		108	70-130	1	30	12/12/13	
Dibromochloromethane	9.9	0.50	ug/L	10		99	70-130	3	30	12/12/13	
Dibromomethane	10	0.50	ug/L	10		103	70-130	4	30	12/12/13	
Dichlorodifluoromethane	9.4	0.50	ug/L	10		94	70-130	10	30	12/12/13	
Dichloromethane	10	0.50	ug/L	10		103	70-130	3	30	12/12/13	
Di-isopropyl ether (DIPE)	10	3.0	ug/L	10		102	70-130	1	30	12/12/13	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		104	70-130	1	30	12/12/13	
Ethylbenzene	10	0.50	ug/L	10		105	70-130	1	30	12/12/13	
Hexachlorobutadiene	11	0.50	ug/L	10		106	70-130	3	30	12/12/13	
Isopropylbenzene	10	0.50	ug/L	10		102	70-130	3	30	12/12/13	
m,p-Xylenes	21	0.50	ug/L	20		103	70-130	1	30	12/12/13	
Methyl-t-butyl ether	21	0.50	ug/L	20		103	70-130	1	30	12/12/13	
Naphthalene	10	0.50	ug/L	10		102	70-130	1	30	12/12/13	
n-Butylbenzene	10	0.50	ug/L	10		104	70-130	3	30	12/12/13	
n-Propylbenzene	10	0.50	ug/L	10		103	70-130	2	30	12/12/13	
o-Xylene	10	0.50	ug/L	10		103	70-130	2	30	12/12/13	
p-Isopropyltoluene	10	0.50	ug/L	10		103	70-130	2	30	12/12/13	
sec-Butylbenzene	10	0.50	ug/L	10		103	70-130	2	30	12/12/13	
Styrene	7.5	0.50	ug/L	10		75	70-130	17	30	12/12/13	
tert-Amyl Methyl Ether (TAME)	10	3.0	ug/L	10		104	70-130	1	30	12/12/13	
tert-Butyl alcohol (TBA)	11	2.0	ug/L	10		105	70-130	12	30	12/12/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314729

Prepared: 12/12/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A314729-BSD1)

tert-Butylbenzene	10	0.50	ug/L	10		103	70-130	2	30	12/12/13	
Tetrachloroethene (PCE)	10	0.50	ug/L	10		104	70-130	1	30	12/12/13	
Toluene	10	0.50	ug/L	10		104	70-130	2	30	12/12/13	
trans-1,2-Dichloroethene	10	0.50	ug/L	10		103	70-130	2	30	12/12/13	
trans-1,3-Dichloropropene	10	0.50	ug/L	10		102	70-130	3	30	12/12/13	
Trichloroethene (TCE)	10	0.50	ug/L	10		104	70-130	0	30	12/12/13	
Trichlorofluoromethane	11	5.0	ug/L	10		107	70-130	1	30	12/12/13	
Vinyl Chloride	10	0.50	ug/L	10		100	70-130	8	30	12/12/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		96	70-130			12/12/13	
Surrogate: Bromofluorobenzene	50			50		99	70-130			12/12/13	

EPA 525.2 - Quality Control

Batch: A314794

Prepared: 12/13/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank (A314794-BLK1)

Alachlor	ND	1.0	ug/L							12/14/13	
Atrazine	ND	0.50	ug/L							12/14/13	
Benzo(a)pyrene	ND	0.10	ug/L							12/14/13	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							12/14/13	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							12/14/13	
Bromacil	ND	1.0	ug/L							12/14/13	
Butachlor	ND	0.38	ug/L							12/14/13	
Diazinon	ND	0.25	ug/L							12/14/13	
Dimethoate	ND	10	ug/L							12/14/13	
Metolachlor	ND	0.50	ug/L							12/14/13	
Metribuzin	ND	0.50	ug/L							12/14/13	
Molinate	ND	2.0	ug/L							12/14/13	
Propachlor	ND	0.50	ug/L							12/14/13	
Simazine	ND	1.0	ug/L							12/14/13	
Thiobencarb	ND	1.0	ug/L							12/14/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			5.0		101	70-130			12/14/13	

Blank Spike (A314794-BS1)

Alachlor	0.53	1.0	ug/L	0.50		105	70-130			12/14/13	
Atrazine	0.56	0.50	ug/L	0.50		110	70-130			12/14/13	
Benzo(a)pyrene	0.12	0.10	ug/L	0.10		115	70-130			12/14/13	
Bis(2-ethylhexyl) adipate	3.2	3.0	ug/L	3.0		106	70-130			12/14/13	
Bis(2-ethylhexyl) phthalate	3.2	3.0	ug/L	3.0		105	70-130			12/14/13	
Bromacil	2.6	1.0	ug/L	2.0		127	70-130			12/14/13	
Butachlor	1.4	0.38	ug/L	1.3		111	70-130			12/14/13	
Diazinon	0.038	0.25	ug/L	0.050		76	70-130			12/14/13	
Dimethoate	0.63	10	ug/L	0.50		125	70-130			12/14/13	
Metolachlor	2.8	0.50	ug/L	2.5		110	70-130			12/14/13	
Metribuzin	2.9	0.50	ug/L	2.5		115	70-130			12/14/13	
Molinate	2.6	2.0	ug/L	2.5		104	70-130			12/14/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A314794

Prepared: 12/13/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A314794-BS1)

Propachlor	2.7	0.50	ug/L	2.5		107	70-130			12/14/13	
Simazine	0.40	1.0	ug/L	0.35		114	70-130			12/14/13	
Thiobencarb	0.61	1.0	ug/L	0.50		121	70-130			12/14/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.9			5.0		97	70-130			12/14/13	

Blank Spike Dup (A314794-BSD1)

Alachlor	0.52	1.0	ug/L	0.51		102	70-130	3	30	12/14/13	
Atrazine	0.54	0.50	ug/L	0.51		106	70-130	4	30	12/14/13	
Benzo(a)pyrene	0.12	0.10	ug/L	0.10		120	70-130	5	30	12/14/13	
Bis(2-ethylhexyl) adipate	3.2	3.0	ug/L	3.0		105	70-130	1	30	12/14/13	
Bis(2-ethylhexyl) phthalate	3.2	3.0	ug/L	3.0		105	70-130	0	30	12/14/13	
Bromacil	2.4	1.0	ug/L	2.0		119	70-130	6	30	12/14/13	
Butachlor	1.4	0.38	ug/L	1.3		113	70-130	2	30	12/14/13	
Diazinon	0.036	0.25	ug/L	0.051		72	70-130	5	30	12/14/13	
Dimethoate	0.63	10	ug/L	0.51		125	70-130	0	30	12/14/13	
Metolachlor	2.8	0.50	ug/L	2.5		109	70-130	1	30	12/14/13	
Metribuzin	2.8	0.50	ug/L	2.5		109	70-130	5	30	12/14/13	
Molinate	2.8	2.0	ug/L	2.5		110	70-130	6	30	12/14/13	
Propachlor	2.7	0.50	ug/L	2.5		109	70-130	2	30	12/14/13	
Simazine	0.39	1.0	ug/L	0.35		111	70-130	2	30	12/14/13	
Thiobencarb	0.54	1.0	ug/L	0.51		106	70-130	13	30	12/14/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.1			5.1		101	70-130			12/14/13	

Matrix Spike (A314794-MS1), Source: A3L0708-01

Alachlor	0.47	1.0	ug/L	0.50	ND	93	70-130			12/14/13	
Atrazine	0.51	0.50	ug/L	0.50	ND	101	70-130			12/14/13	
Benzo(a)pyrene	0.13	0.10	ug/L	0.10	ND	126	70-130			12/14/13	
Bis(2-ethylhexyl) adipate	3.1	3.0	ug/L	3.0	ND	103	70-130			12/14/13	
Bis(2-ethylhexyl) phthalate	3.4	3.0	ug/L	3.0	ND	112	70-130			12/14/13	
Bromacil	2.5	1.0	ug/L	2.0	ND	123	70-130			12/14/13	
Butachlor	1.3	0.38	ug/L	1.3	ND	106	70-130			12/14/13	
Diazinon	0.043	0.25	ug/L	0.050	ND	86	70-130			12/14/13	
Dimethoate	0.63	10	ug/L	0.50	ND	126	70-130			12/14/13	
Metolachlor	2.5	0.50	ug/L	2.5	ND	100	70-130			12/14/13	
Metribuzin	2.8	0.50	ug/L	2.5	ND	111	70-130			12/14/13	
Molinate	2.7	2.0	ug/L	2.5	ND	108	70-130			12/14/13	
Propachlor	2.8	0.50	ug/L	2.5	ND	112	70-130			12/14/13	
Simazine	0.39	1.0	ug/L	0.35	ND	110	70-130			12/14/13	
Thiobencarb	0.56	1.0	ug/L	0.50	ND	112	70-130			12/14/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.1			5.0		101	70-130			12/14/13	

EPA 531.1 - Quality Control

Batch: A314582

Prepared: 12/9/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A314582-BLK1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A314582

Prepared: 12/9/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A314582-BLK1)

3-Hydroxycarbofuran	ND	3.0	ug/L							12/09/13	
Aldicarb	ND	3.0	ug/L							12/09/13	
Aldicarb Sulfone	ND	2.0	ug/L							12/09/13	
Aldicarb Sulfoxide	ND	3.0	ug/L							12/09/13	
Carbaryl	ND	5.0	ug/L							12/09/13	
Carbofuran	ND	5.0	ug/L							12/09/13	
Methomyl	ND	2.0	ug/L							12/09/13	
Oxamyl	ND	20	ug/L							12/09/13	

Blank Spike (A314582-BS1)

3-Hydroxycarbofuran	3.9	3.0	ug/L	4.2		94	80-120			12/10/13	
Aldicarb	3.8	3.0	ug/L	4.2		91	80-120			12/10/13	
Aldicarb Sulfone	4.1	2.0	ug/L	4.2		98	80-120			12/10/13	
Aldicarb Sulfoxide	4.1	3.0	ug/L	4.2		98	80-120			12/10/13	
Carbaryl	3.9	5.0	ug/L	4.2		93	80-120			12/10/13	
Carbofuran	4.0	5.0	ug/L	4.2		95	80-120			12/10/13	
Methomyl	4.0	2.0	ug/L	4.2		96	80-120			12/10/13	
Oxamyl	4.1	20	ug/L	4.2		99	80-120			12/10/13	

Blank Spike Dup (A314582-BSD1)

3-Hydroxycarbofuran	4.1	3.0	ug/L	4.2		98	80-120	4	20	12/10/13	
Aldicarb	4.0	3.0	ug/L	4.2		95	80-120	5	20	12/10/13	
Aldicarb Sulfone	4.1	2.0	ug/L	4.2		99	80-120	1	20	12/10/13	
Aldicarb Sulfoxide	4.2	3.0	ug/L	4.2		100	80-120	2	20	12/10/13	
Carbaryl	4.0	5.0	ug/L	4.2		97	80-120	4	20	12/10/13	
Carbofuran	4.2	5.0	ug/L	4.2		100	80-120	5	20	12/10/13	
Methomyl	4.1	2.0	ug/L	4.2		98	80-120	2	20	12/10/13	
Oxamyl	4.1	20	ug/L	4.2		99	80-120	0	20	12/10/13	

Matrix Spike (A314582-MS1), Source: A3K1962-02

3-Hydroxycarbofuran	3.9	3.0	ug/L	4.2	ND	95	65-135			12/10/13	
Aldicarb	4.0	3.0	ug/L	4.2	ND	96	65-135			12/10/13	
Aldicarb Sulfone	4.0	2.0	ug/L	4.2	ND	96	65-135			12/10/13	
Aldicarb Sulfoxide	4.0	3.0	ug/L	4.2	ND	95	65-135			12/10/13	
Carbaryl	3.8	5.0	ug/L	4.2	ND	85	65-135			12/10/13	
Carbofuran	3.9	5.0	ug/L	4.2	ND	93	65-135			12/10/13	
Methomyl	3.8	2.0	ug/L	4.2	ND	85	65-135			12/10/13	
Oxamyl	3.9	20	ug/L	4.2	ND	91	65-135			12/10/13	

EPA 547 - Quality Control

Batch: A314544

Prepared: 12/9/2013

Prep Method: EPA 547

Analyst: RJB

Blank (A314544-BLK1)

Glyphosate	ND	25	ug/L							12/09/13	
Surrogate: AMPA	91			100		91	70-130			12/09/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 547 - Quality Control

Batch: A314544

Prepared: 12/9/2013

Prep Method: EPA 547

Analyst: RJB

Blank Spike (A314544-BS1)

Glyphosate	95	25	ug/L	100		95	70-130			12/09/13	
Surrogate: AMPA	97			100		97	70-130			12/09/13	

Blank Spike Dup (A314544-BSD1)

Glyphosate	100	25	ug/L	100		100	70-130	5	30	12/09/13	
Surrogate: AMPA	91			100		91	70-130			12/09/13	

Matrix Spike (A314544-MS1), Source: A3L0226-01

Glyphosate	100	25	ug/L	100	ND	98	70-130			12/09/13	
Surrogate: AMPA	99			100		97	70-130			12/09/13	

Matrix Spike Dup (A314544-MSD1), Source: A3L0226-01

Glyphosate	110	25	ug/L	100	ND	104	70-130	6	30	12/09/13	
Surrogate: AMPA	94			100		93	70-130			12/09/13	

EPA 548.1 - Quality Control

Batch: A314594

Prepared: 12/9/2013

Prep Method: EPA 548.1

Analyst: KHH

Blank (A314594-BLK1)

Endothall	ND	45	ug/L							12/11/13	
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Blank Spike (A314594-BS1)

Endothall	13	45	ug/L	20		64	60-111			12/11/13	
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Blank Spike Dup (A314594-BSD1)

Endothall	15	45	ug/L	20		77	60-111	19	46	12/11/13	
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Matrix Spike (A314594-MS1), Source: A3L0383-01

Endothall	ND	45	ug/L	20	ND	0	10-122			12/11/13	MS1.0 Low
-----------	----	----	------	----	----	---	--------	--	--	----------	-----------

EPA 549.2 - Quality Control

Batch: A314617

Prepared: 12/10/2013

Prep Method: EPA 549.2

Analyst: PYA

Blank (A314617-BLK1)

Diquat	ND	4.0	ug/L							12/16/13	
--------	----	-----	------	--	--	--	--	--	--	----------	--

Blank Spike (A314617-BS1)

Diquat	3.7	4.0	ug/L	4.0		92	70-130			12/16/13	
--------	-----	-----	------	-----	--	----	--------	--	--	----------	--

Blank Spike Dup (A314617-BSD1)

Diquat	3.7	4.0	ug/L	4.0		93	70-130	1	30	12/16/13	
--------	-----	-----	------	-----	--	----	--------	---	----	----------	--

Matrix Spike (A314617-MS1), Source: A3L0576-01

Diquat	3.5	4.0	ug/L	4.0	ND	88	70-130			12/16/13	
--------	-----	-----	------	-----	----	----	--------	--	--	----------	--

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
---------	--------	----	-------	-------------	---------------	------	-------------	-----	-----------	---------------	------

EPA 549.2 - Quality Control

Batch: A314617
 Prep Method: EPA 549.2

Prepared: 12/10/2013
 Analyst: PYA

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of California - ELAP	1180	State of Nevada	CA000792009A
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA
State of California - NELAP	04227CA	State of Oregon	4017
State of Washington	C997	State of Oregon - NWT PH	4021

BSK is not accredited under the NELAC program for the following parameters:

Boron	Silica (SiO ₂)	Strontium
Threshold Odor		

A3L0508



California American Water

Calif3295



12062013

Turnaround: Standard

Due Date: 12/20/2013



Temp: 3.3

***Required Fields**

Company/Client Name*: California American Water

Report Attention*: Travis Peterson
 Additional cc's: Sarp Sekeroglu, RBF Consulting

Invoice To*: Accounts Payable
 PO#:

Phone*: (831) 646-3295/(831) 646-3269 Fax*: (831) 333-1343
 E-mail*: susan.jacobson@amwater.com,travis.peterson@amwater.com

Address*: PO Box 951 City*: Monterey State*: CA Zip*: 93942-0951

Project: Water Quality Analysis - MPWSP

Reporting Options:
 Trace (J-Flag) Swamp EDD Type:

How would you like your completed results sent*:
 E-Mail Fax Mail

Regulatory Carbon Copies:
 GDPH Fresno Co
 Merced Co Tulare Co
 Madera Co Other:

Regulatory Compliance:
 EDT to California DPH
 System Number*:
 Geotracker #:

Sampler Name (Printed/Signature)*: Nathan Reynolds

TAT: Standard - 10 Business Days **Surcharge
 **Rush: Date Needed

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled*		Matrix*	Comments / Station Code / WTRAX	Alkalinity, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC	Mass Balance-Dissolved: Cations and Anions	Dissolved Metals: Ba, B, Ca, Fe, Mg, Mn, K, Na, Sr, silica	Total Metals: Al, As, Cu, Fe, Mn, Zn	Dissolved: Bromide, Chloride, Nitrite, Fluoride, Sulfate, Orthophosphate-P	Dissolved: Ammonia, TKN, Phosphorus	Nitrate+ Nitrite as N, Nitrate-NO3	EPA 524, 504, 505, 515, 525, 531, 547, 548, 549	EXT-Tritium, EXT-Lithium, EXT-Dissolved Iodide, EXT-Dioxin
		Date	Time											
26	ML-4 Zone#1 (163.5 - 173.5 ft bgs)	12-5-13	10:25	water	Seawater salinity levels. Lab to filter dissolved metals. Lab to filter Diss. Ammonia, TKN, P Okay to analyze out of hold time.	X	X	X	X	X	X	X	X	X

Relinquished by: (Signature and Printed Name) Nathan Reynolds Company GEO SCIENCE Date 12/5 Time 1:30 pm

Relinquished by: (Signature and Printed Name) Sharilyn Jensen Company RBF Consulting Date 12/6 Time 12:43

Received for Lab by: (Signature and Printed Name) Payment Received at Delivery: Date: Amount: PIA#: Check / Cash

Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Courier: T

Cooling Method: Wet Blue None Custody Seal: Y Chilling Process Begun: Y N

Payment for services rendered as noted herein are due in full within 30 days from the date Invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf

Sample Integrity



BSK Bottles: Yes No Page 1 of 1

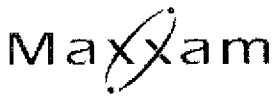
COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$		Were correct containers and preservatives received for the tests requested?			
		<u>Yes</u> No NA	Yes No NA	<u>Yes</u> No NA		
COC Info	If samples were taken today, is there evidence that chilling has begun?		Were there bubbles in the VOA vials? (Volatiles Only)			
	Yes No <u>NA</u>	Yes No <u>NA</u>	Yes No <u>NA</u>			
COC Info	Did all bottles arrive unbroken and intact?		Was a sufficient amount of sample received?			
	<u>Yes</u> No	Yes No	<u>Yes</u> No			
COC Info	Did all bottle labels agree with COC?		Do samples have a hold time <72 hours?			
	<u>Yes</u> No	Yes No	Yes <u>NO</u>			
COC Info	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?		Was PM notified of discrepancies? PM: By/Time:			
	Yes No <u>NA</u>	Yes No <u>NA</u>	Yes No <u>NA</u>			
Bottles Received "—" means preservation/chlorine checks are either N/A or are performed in the lab	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	<u>1</u>		
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—			
	None (P) ^{White Cap}	—	—	<u>2C, 1B, 1A</u>		
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y N			
	HNO_3 (P) ^{Red Cap}	—	—	<u>2B</u>		
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y N	<u>1A</u>		
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y N			
	NaOH + ZnAc (P)	pH ≥ 9	Y N			
	Dissolved Oxygen 300ml (g)	—	—			
	None (AG) 608/6081/8082, 625, 632/8321, 8151, 8270	—	—	<u>2C, 1B, 1A</u>		
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—	<u>1B, 1C</u>		
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—	<u>2C, 2A</u>		
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—			
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—	<u>4V</u>		
	$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) ^{Orange Label} 531	pH = 3	Y N	<u>1V</u>		
	NH_4Cl (AG) ^{Purple Label} 552	—	—			
	EDA (AG) ^{Brown Label} DBPs	—	—	<u>1A</u>		
	Ascorbic + Maleic (AG) ^{Lt Green Label} 524.3	—	—			
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—	<u>3V</u>		
Buffer pH 4 (CG)	—	—				
None (CG) <u>Kerr Jar</u>	—	—	<u>1C</u>			
H_3PO_4 (CG) ^{Salmon Label}	—	—				
Other:						
Asbestos 1Liter Plastic w/ Foil	—	—				
Low Level Hg / Metals Double Baggie	—	—				
Bottled Water	—	—				
Clear Glass Jar: 250 / 500 / 1 Liter	—	—				
Soil Tube Brass / Steel / Plastic	—	—				
Tedlar Bag / Plastic Bag	—	—				
Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials
	S P			S P		
Comments	S P			S P		

External



A3L0508





Your Project #: A3L0508
Your C.O.C. #: na

Attention: Michael Ng

BSK Analytical Laboratories
1414 Stanislaus Street
Fresno, CA
USA 93706

Report Date: 2014/01/02

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B3L4273

Received: 2013/12/11, 12:00

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
2,3,7,8-TCDD in Water (1613B)	1	2013/12/17	2013/12/20	BRL SOP-00410	EPA 1613B mod.

Remarks:

The lab certifies that the test results meet all requirements of NELAC, where applicable.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.


U = Undetected at the limit of quantitation.

J = Estimated concentration between the EDL & RDL.

B = Blank Contamination.

Q = One or more quality control criteria failed.

Encryption Key



Ivana Vukovic
03 Jan 2014 10:48:30 -05 00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ivana Vukovic, Env Project Manager

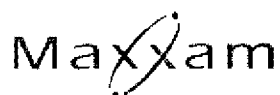
Email: IVukovic@maxxam.ca

Phone# (905) 817-5700

This report has been generated and distributed using a secure automated process.

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics Inc. is a NELAC accredited laboratory. Certificate # CANA001. Use of the NELAC logo however does not insure that Maxxam is accredited for all of the methods indicated. This certificate shall not be reproduced except in full, without the written approval of Maxxam Analytics Inc.

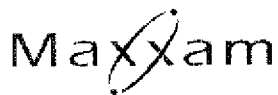


Maxxam Job #: B3L4273
Report Date: 2014/01/02

BSK Analytical Laboratories
Client Project #: A3L0508

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UG2716						
Sampling Date		2013/12/05 10:25						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	A3L0508-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Dioxins & Furans								
2,3,7,8-Tetra CDD *	pg/L	1.1 U	1.1	4.1	1.00	1.10		3463429
TOTAL TOXIC EQUIVALENCY	pg/L					1.10		
Surrogate Recovery (%)								
37CL4 2378 Tetra CDD *	%	130						3463429
C13-2378 TetraCDD *	%	142						3463429
EDL = Estimated Detection Limit RDL = Reportable Detection Limit TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds QC Batch = Quality Control Batch * CDD = Chloro Dibenzo-p-Dioxin								



Maxxam Job #: B3L4273
Report Date: 2014/01/02

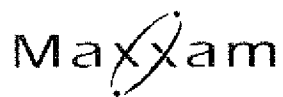
BSK Analytical Laboratories
Client Project #: A3L0508

TEST SUMMARY

Maxxam ID: UG2716
Sample ID: A3L0508-01
Matrix: Water

Collected: 2013/12/05
Shipped:
Received: 2013/12/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
2,3,7,8-TCDD in Water (1613B)	HRMS/MS	3463429	2013/12/17	2013/12/20	Cathy Xu

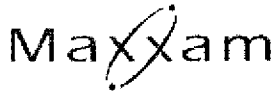


Maxxam Job #: B3L4273
Report Date: 2014/01/02

BSK Analytical Laboratories
Client Project #: A3L0508

GENERAL COMMENTS

Results relate only to the items tested.



Maxxam Job #: B3L4273
Report Date: 2014/01/02

BSK Analytical Laboratories
Client Project #: A3L0508

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	Units	QC Limits
3463429	CXU	Spiked Blank	2,3,7,8-Tetra CDD	2013/12/20		90	%	67 - 158
			37CL4 2378 Tetra CDD	2013/12/20		100	%	40 - 130
			C13-2378 TetraCDD	2013/12/20		101	%	24 - 164
3463429	CXU	Method Blank	2,3,7,8-Tetra CDD	2013/12/20	1.9, EDL=1.9		pg/L	
			37CL4 2378 Tetra CDD	2013/12/20		109	%	40 - 130
			C13-2378 TetraCDD	2013/12/20		114	%	24 - 164

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



Maxxam Job #: B3L4273
Report Date: 2014/01/02

BSK Analytical Laboratories
Client Project #: A3L0508

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Owen Cosby, BSc.C.Chem, Supervisor, HRMS Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



SUBCONTRACT ORDER
A3L0508

11-Dec-13 12:50
Ivana Vukovic
B31, 1273
FW LNV-898

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93716
Phone: 509-487-2658
Fax: 509-485-3626
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Maxxim Analytics
PO Box 57437 Station A
Toronto, ON M5W5M6
Phone: (905) 817-5754
Fax:
Turnaround (Days): standard
QC Deliverables: 1 (Sig. D) IV

Sample ID	Sample Desc	Sample Date
A3L0508-01	W-4 Zone 4 (195.6 173.5 ft. bus)	12/05/2013 10:25
Matrix: Water		
Analysis: (1) - ALW / NONE		
EPA 1631/2,5,7,8-TCDF		

Released By: *[Signature]* Date: 12/10/13
 Received By: *[Signature]* Date: 2013/12/11 12:50L

Received By: _____ Date: _____
 Received By: _____ Date: _____

3.1/3.9/4.22 Page: 1 of 3



Certificate of Analysis

Report Date: 12/17/13 11:09
Received Date: 12/10/13 09:45
Turnaround Time: Normal
Phones: (559) 497-2888
Fax: (559) 485-6935
P.O. #:

Project: A3L0508

Attn: Michael Ng

Client: BSK Analytical Laboratories
 550 West Locust Avenue
 Fresno, CA 93650

Dear Michael Ng :

Enclosed are the results of analyses for samples received 12/10/2013 with the Chain of Custody document. The samples were received in good condition, at 3.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab Sample ID: 3L10011-01	Sample ID: A3L0508-01	Matrix: Water								
Sampled by: Client	Sampled: 12/05/13 10:25									
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Lithium, Total	240		10	ug/l	1	EPA 200.7	12/10/13	12/11/13 13:08	W3L0516	
Iodide, Dissolved	640		250	ug/l	25	EPA 9056A	12/12/13	12/12/13 22:54	W3L0678	



Certificate of Analysis

Quality Control Section

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

Batch W3L0678 - EPA 9056A

Table with columns: Analyte, Sample Result, QC Result, Qualifier, Units, Spike Level, %REC, %REC Limits, RPD, RPD Limit. Includes sections for Blank (W3L0678-BLK1), LCS (W3L0678-BS1), Duplicate (W3L0678-DUP1), Duplicate (W3L0678-DUP2), Duplicate (W3L0678-DUP3), Matrix Spike (W3L0678-MS1), and Matrix Spike Dup (W3L0678-MSD1).

Metals by EPA 200 Series Methods - Quality Control

Batch W3L0516 - EPA 200.7

Table with columns: Analyte, Sample Result, QC Result, Qualifier, Units, Spike Level, %REC, %REC Limits, RPD, RPD Limit. Includes sections for Blank (W3L0516-BLK1), LCS (W3L0516-BS1), Matrix Spike (W3L0516-MS1), and Matrix Spike Dup (W3L0516-MSD1).



Certificate of Analysis

Notes:

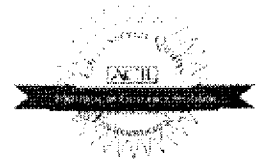
The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Kim G Tu (Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

- ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
- Sub Subcontracted analysis, original report enclosed.
- DL Method Detection Limit
- RL Method Reporting Limit
- MDA Minimum Detectable Activity
- NR Not Reportable

3L10011



SUBCONTRACT ORDER

A3L0508

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E Clark Avenue
City of Industry, CA 91745-1396
Phone : (626) 336-2139
Fax: (626) 336-2634
Turnaround (Days): ~~Standard~~
QC Deliverables: I ~~III~~ IV

Sample ID	Samp Desc	Sample Date
A3L0508-01	ML-4 Zone #4 (163.5-173.5 ft. bgs)	12/05/2013 10:25

Matrix: Water

Analysis (17 L P w/ none)
 EXT-Iodide Dissolved
 EXT-Miscellaneous Lithium

Released By [Signature] Date 10/9/13 Received By Ontac Date 3/1
 Released By Ontac Date _____ Received By Jaine Guez Date 12/10/13 09:45



Weck Laboratories, Inc.

Environmental and Analytical Services - Since 1964

Sample Receipt Acknowledgement

WORK ORDER: 3L10011

Printed: 12/11/2013 11:57:33AM

Client: BSK Analytical Laboratories

Project Manager: Kim G Tu

Project: Metals

Project Number: A3L0508

Report To:

BSK Analytical Laboratories

Michael Ng

550 West Locust Avenue

Fresno, CA 93650

Phone: (559) 497-2888

Fax: (559) 485-6935

Invoice To:

BSK Analytical Laboratories

Accounts Payable - Anise Foote

550 West Locust Avenue

Fresno, CA 93650

Phone: (559) 497-2888

Fax: (559) 485-6935

Date Due: 12/24/13 15:00 (10 day TAT)

Received By: Adrian Talabis

Date Received: 12/10/13 09:45

Logged In By: Adrian Talabis

Date Logged In: 12/10/13 11:56

Samples Received at:	3.1°C	All containers intact:	Yes	Chain of custody completed	Yes
Number of Ice		Custody seals present		Sample labels & COC agree	Yes
chests/packages:		Custody seals intact:		Samples preserved properly	Yes
Appropriate Sample		Samples received on ice		Sample volume sufficient	Yes
Containers:		Custody Seals	No	Sufficient holding time for all tests	Yes

Analysis	TAT	Expires	Comments
3L10011-01 A3L0508-01 [Water] Sampled 12/05/13 10:25 Pacific			
Iodide water 9056M_Diss	10	01/02/14 10:25	
200.7 Li	10	06/03/14 10:25	Preserved @ lab 10:10 On 12/10/13 by JG

Comments:

12/11/2013

Authorized Signature

Date

Note:

If any of the information included in this sample receipt acknowledgement is incorrect (sample information, analysis, etc), please contact the lab at (626) 336-2139. Thank you.



January 06, 2014

Mr. Michael Ng
BSK Analytical Laboratories
1414 Stanislaus St.
Fresno, CA 93706

RE: Project: A3L0508
Pace Project No.: 30109731

Dear Mr. Ng:

Enclosed are the analytical results for sample(s) received by the laboratory on December 17, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins

jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



CERTIFICATIONS

Project: A3L0508
Pace Project No.: 30109731

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
AGCLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-1035B
Kentucky Certification #: 90133
Louisiana/TNI Certification #: LA080002
Louisiana/TNI Certification #: 4086
Maine Certification #: PA0091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification

Missouri Certification #: 235
Montana Certification #: Cert 0082
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA.051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: ANTE
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia Certification #: 143
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: A3L0508
Pace Project No.: 30109731

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30109731001	A3L0508-01	Water	12/05/13 10:25	12/17/13 10:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: A3L0508
Pace Project No.: 30109731

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30109731001	A3L0508-01	EPA 906.0	SLA	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: A3L0508
Pace Project No.: 30109731

Method: EPA 906.0
Description: 906.0 Tritium
Client: BSK Analytical Laboratories
Date: January 06, 2014

General Information:

1 sample was analyzed for EPA 906.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: A3L0508
Pace Project No.: 30109731

Sample: A3L0508-01	Lab ID: 30109731001	Collected: 12/05/13 10:25	Received: 12/17/13 10:30	Matrix: Water		
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Tritium	EPA 906.0	-118 ± 123 (231)	pCi/L	12/21/13 15:24	10028-17-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: A3L0508
 Pace Project No.: 30109731

QC Batch:	RADC/18120	Analysis Method:	EPA 906.0
QC Batch Method:	EPA 906.0	Analysis Description:	906.0 Tritium
Associated Lab Samples:	30109731001		

METHOD BLANK: 671627 Matrix: Water
 Associated Lab Samples: 30109731001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Tritium	-43.1 ± 116 (211)	pCi/L	12/21/13 09:16	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: A3L0508
Pace Project No.: 30109731

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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Date: 01/06/2014 12:03 PM

Page 8 of 11



SUBCONTRACT ORDER

A3L0508

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical-Radiochem
1638 Roseytown Rd Ste 2,3,4
Greensburg, PA 15601
Phone : (724) 850-5600
Fax: (724) 722-5208
Turnaround (Days): Standard
QC Deliverables: I, II, III, IV

30109-781

Table with 3 columns: Sample ID, Samp Desc, Sample Date. Row 1: A3L0508-01, ML-4 Zone #4 (163.5-173.5 ft. bgs), 12/05/2013 10:25

Matrix: Water

Analysis 250 mL AB w/ NDMAE
EXT-Tritium

Non preserved glass container

Released By [Signature] Date 12/10/13
Received By [Signature] Date 11/17/13

Sample Condition Upon Receipt



Client Name: BSIC

Project # 3010973

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 12 578 911 03 6191 4459

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: yes no Seals Intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 5 6 7 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature N/A

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: <u>MTG 12/18/13</u>

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, C&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: <u>MTG</u> Lot # of added preservative:
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

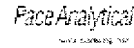
Project Manager Review: _____

Date: 12/18/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

QA Assessment Spreadsheet
PACE Analytical Services

Quality Control Sample Performance Assessment



Analyst: SLA
Date: 12/23/2013
Worklist: 18120
Matrix: DW
Method: EPA 808 J
SOP: FCH-R-021
MB Sample ID: 571827

Method Blank Assessment						
Analyte	Activity	1.96 Sig Unc.	MDC	Critical Value	Flag	Assessment
Trilium	43.1200	116.3600	210.0000	100.27000		

Laboratory Control Sample Assessment						
	LCS	LCSD	LCS	LCSD	LCS	LCSD
Analyte:	Trilium					
Count Date:	12/23/13 1:31	12/23/13 2:37				
Spike I.D.:	19.993	19.993				
Spike Concentration (pCi/L):	2811.796	2811.776				
Volume Used (mL):	0.100	0.100				
Aliquot Volume (L, g, F):	0.110	0.112				
Target Conc. (pCi/L, g, F):	2205.113	2252.717				
1.96 Sigma Uncertainty (Calculated):	62.708	61.618				
Result (pCi/L, g, F):	2381.360	2053.090				
1.96 Sigma Unc:	233.800	217.960				
% Recovery:	81.02%	91.14%				
Assessment:	Pass	Pass				
Upper % Recovery Limits:	105.00%	125.00%				
Lower % Recovery Limits:	75.00%	75.00%				

Duplicate Sample Assessment	
LCS/LCSD Y or N?	Y
Analyte:	Trilium
Sample I.D.:	LCS18120
Duplicate Sample I.D.:	LCSD18120
Sample Result (pCi/L, g, F):	2091.8500
1.96 Sigma Unc:	223.8000
Sample Duplicate Result (pCi/L, g, F):	2053.0300
Duplicate Sample 1.96 Sigma Unc:	217.9000
Either results below MDC?	N
Relative Percent Difference:	1.39%
Assessment:	Pass
% RPD Limit:	25.00%

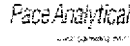
Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment		
Analyte:	Trilium	Trilium
Sample Collection Date:	12/20/13	12/19/2013
Sample I.D.:	3010932001	3010972901
Sample MS I.D.:	30109332001MS	3010972901MS
Sample MSD I.D.:		
Spike I.D.:	19-303	10-002
MS/MSD Delay Corrected Spike Conc. (pCi/L):	2517.894	2416.067
Spike Volume Used in MS (mL):	0.20	0.20
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):	0.1567	0.1323
MS Target Conc. (pCi/L, g, F):	4719.576	4951.445
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike uncertainty (calculated):	121.806	106.319
MSD Spike uncertainty (calculated):		
Sample Result:	3494.280	38.060
Sample 1.96 Sigma Unc.:	254.000	123.750
Sample Matrix Spike Result:	7665.890	4546.940
Sample MS 1.96 Sigma Unc.:	326.800	300.800
Sample Matrix Spike Duplicate Result:		
Sample MSD 1.96 Sigma Unc.:		
MS % Recovery:	30.30%	92.88%
MSD % Recovery:		
MS Assessment:	Pass	Pass
MSD Assessment:		
MS/MSD Upper % Recovery Limits:	125.00%	125.00%
MS/MSD Lower % Recovery Limits:	75.00%	75.00%

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Analyte:		
Sample I.D.:		
Sample MS I.D.:		
Sample MSD I.D.:		
Sample Matrix Spike Result:		
Sample Matrix Spike 1.96 Sigma Unc.:		
Sample Matrix Spike Duplicate Result:		
Sample Matrix Spike Duplicate 1.96 Sigma Unc.:		
MS/MSD Relative Percent Difference:		
MS/MSD RPD Assessment:		
% RPD Limit:		

Quality Control Sample Performance Assessment



Analyst: GLA
 Date: 12/23/2013
 Worklist: 15126
 Matrix: DW
 Method: EPA 806 D
 SCP: PQHR-021
 MB Sample ID: 671627

Method Blank Assessment						
Analyte	Activity	1.96 Sig Unc.	MDC	Critical Value	Flag	Assessment
Tributyl	42.1200	1.63000	210.8000	106.27000		

Laboratory Control Sample Assessment						
Analyte:	LCS	LCSD	LCS	LCSD	LCS	LCSD
Count Date:	12/23/13	12/23/13				
Spike I.D.:	10001	10001				
Spike Concentration (pCi/L):	2510.786	2511.779				
Volume Used (ml):	0.100	0.100				
Aliquot Volume (L, g, F):	0.110	0.112				
Target Conc. (pCi/L, g, F):	2235.313	2252.717				
1.96 Sigma Uncertainty (Calculated):	67.303	67.615				
Result (pCi/L, g, F):	2287.850	2320.090				
1.96 Sigma Unc:	223.300	217.900				
% Recovery:	91.16%	91.14%				
Assessment:	Pass	Pass				
Upper % Recovery Limits:	105.00%	125.00%				
Lower % Recovery Limits:	75.00%	75.00%				

Duplicate Sample Assessment		
LCS/LCSD Y or N?	Y	
Analyte:	Tributyl	
Sample I.D.:	LCSD18120	
Duplicate Sample I.D.:	LCSD18125	
Sample Result (pCi/L, g, F):	2091.8500	
1.96 Sigma Unc.:	229.5000	
Sample Duplicate Result (pCi/L, g, F):	2053.0000	
Duplicate Sample 1.96 Sigma Unc.:	217.9000	
Either results below MDC?	N	
Relative Percent Difference:	1.35%	
Assessment:	Pass	
% RPD Limit:	25.00%	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment		
Analyte:	Tributyl	Tributyl
Sample Collection Date:	12/8/2013	12/13/2013
Sample I.D.:	3010932001	3010932001
Sample MS I.D.:	3010932001MS	3010932001MS
Sample MSD I.D.:		
Spike I.D.:	10001	10001
MS/MSD Decay Corrected Spike Conc. (pCi/L):	2517.894	2510.037
Spike Volume Used in MS (ml):	0.10	0.20
Spike Volume Used in MSD (ml):		
MS Aliquot (L, g, F):	0.1007	0.1020
MS Target Conc. (pCi/L, g, F):	2413.625	4931.445
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike uncertainty (calculated):	129.500	135.310
MSD Spike uncertainty (calculated):		
Sample Result:	3424.240	435.000
Sample 1.96 Sigma Unc.:	289.300	120.700
Sample Matrix Spike Result:	7691.850	4564.850
Sample MS 1.96 Sigma Unc.:	375.000	300.600
Sample Matrix Spike Duplicate Result:		
Sample MSD 1.96 Sigma Unc.:		
MS % Recovery:	81.36%	92.58%
MSD % Recovery:		
MS Assessment:	Pass	Pass
MSD Assessment:		
MS/MSD Upper % Recovery Limits:	105.00%	125.00%
MS/MSD Lower % Recovery Limits:	75.00%	75.00%

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Analyte		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Sample Matrix Spike 1.96 Sigma Unc.:		
Sample Matrix Spike Duplicate Result:		
Sample Matrix Spike Duplicate 1.96 Sigma Unc.:		
MS/MSD Relative Percent Difference:		
MS/MSD RPD Assessment:		
% RPD Limit:		

CERTIFICATE OF ANALYSIS

Client: California American Water-Monterey P.O.BOX 951 Monterey CA, 93942-0951 Attention: Travis Peterson Phone: (831) 464-3269 Fax: - Work Order(s): 3L09093	Report Date: 01/06/14 12:51 Received Date: 12/09/13 19:49 Turn Around: Normal Client Project: Water Quality Analysis- MPWSP
--	--

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Travis Peterson :

Enclosed are the results of analyses for samples received 12/09/13 19:49 with the Chain of Custody document. The samples were received in good condition, at 3.4 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Hai Van Nguyen
 Project Manager





California American Water-Monterey
P.O. BOX 951
Monterey CA, 93942-0951

Date Received: 12/09/13 19:49
Date Reported: 01/06/14 12:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
ML-4 Zone # 2 (74.5-84.5 ftbgs)	Nathan Reynolds		3L09093-01	Water	12/06/13 12:25

ANALYSES

Anions by IC, EPA Method 300.0/300.1/326

Carbamates and Urea Pesticides

Chlorinated Herbicides

Chlorinated Pesticides and/or PCBs

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Diquat and Paraquat by EPA 549.2

Endothall By EPA 548.1

Fumigants by EPA Method 504.1

Glyphosate by EPA 547

Metals by EPA 200 Series Methods

Semivolatile Organic Compounds by GC/MS

Subcontracted Analyses

Volatile Organic Compounds by EPA Method 524.2



California American Water-Monterey
P.O.BOX 951
Monterey CA, 93942-0951

Date Received: 12/09/13 19:49
Date Reported: 01/06/14 12:51

3L09093-01 ML-4 Zone # 2 (74.5-84.5 ftbgs)

Sampled: 12/06/13 12:25

Sampled By: Nathan Reynolds

Matrix: Water

Anions by IC, EPA Method 300.0/300.1/326

Method: EPA 300.0	Batch: W3L0726	Prepared: 12/13/13 15:22	Analyst: atl	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
Chloride, Total	4600	250	mg/l 500 12/13/13 21:24	
Fluoride, Total	ND	0.50	mg/l 5 12/13/13 21:24	M-05
Sulfate as SO4	420	250	mg/l 500 12/13/13 21:24	

Method: EPA 300.1	Batch: W3L0650	Prepared: 12/12/13 13:00	Analyst: cwh	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
Bromide	16000	1000	ug/l 100 12/13/13 17:23	
Surr: Dichloroacetate	96 %	Conc:480	90-115 %	

Carbamates and Urea Pesticides

Method: EPA 531.1	Batch: W3L0819	Prepared: 12/16/13 13:19	Analyst: cwh	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
3-Hydroxycarbofuran	ND	2.0	ug/l 1 12/17/13 01:13	
Aldicarb	ND	2.0	ug/l 1 12/17/13 01:13	
Aldicarb sulfone	ND	2.0	ug/l 1 12/17/13 01:13	
Aldicarb sulfoxide	ND	2.0	ug/l 1 12/17/13 01:13	
Carbaryl	ND	2.0	ug/l 1 12/17/13 01:13	
Carbofuran	ND	2.0	ug/l 1 12/17/13 01:13	
Methiocarb	ND	2.0	ug/l 1 12/17/13 01:13	
Methomyl	ND	2.0	ug/l 1 12/17/13 01:13	
Oxamyl	ND	2.0	ug/l 1 12/17/13 01:13	
Propoxur (Baygon)	ND	2.0	ug/l 1 12/17/13 01:13	

Chlorinated Herbicides

Method: EPA 515.3	Batch: W3L0427	Prepared: 12/09/13 19:54	Analyst: mxw	
Analyte	Result	MRL	Units Dil Analyzed	Qualifier
2,4,5-T	ND	0.20	ug/l 1 12/13/13 04:55	
2,4,5-TP (Silvex)	ND	0.20	ug/l 1 12/13/13 04:55	
2,4-D	ND	0.40	ug/l 1 12/13/13 04:55	
2,4-DB	ND	2.0	ug/l 1 12/13/13 04:55	
3,5-Dichlorobenzoic acid	ND	1.0	ug/l 1 12/13/13 04:55	
Acifluorfen	ND	0.40	ug/l 1 12/13/13 04:55	
Bentazon	ND	2.0	ug/l 1 12/13/13 04:55	
Dalapon	ND	0.40	ug/l 1 12/13/13 04:55	
DCPA	ND	0.10	ug/l 1 12/13/13 04:55	
Dicamba	ND	0.60	ug/l 1 12/13/13 04:55	
Dichloroprop	ND	0.30	ug/l 1 12/13/13 04:55	
Dinoseb	ND	0.40	ug/l 1 12/13/13 04:55	
Pentachlorophenol	ND	0.20	ug/l 1 12/13/13 04:55	
Picloram	ND	0.60	ug/l 1 12/13/13 04:55	



California American Water-Monterey
P.O.BOX 951
Monterey CA, 93942-0951

Date Received: 12/09/13 19:49
Date Reported: 01/06/14 12:51

3L09093-01 ML-4 Zone # 2 (74.5-84.5 ftbgs)

Sampled: 12/06/13 12:25

Sampled By: Nathan Reynolds

Matrix: Water

Chlorinated Herbicides

Method: EPA 515.3

Batch: W3L0427

Prepared: 12/09/13 19:54

Analyst: mxw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Surr: 2,4-DCAA	83 %	Conc:8.27	70-130	%		

Chlorinated Pesticides and/or PCBs

Method: EPA 508

Batch: W3L0474

Prepared: 12/10/13 10:12

Analyst: mxw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
4,4'-DDD	ND	0.010	ug/l	1	12/17/13 09:43	
4,4'-DDE	ND	0.010	ug/l	1	12/17/13 09:43	
4,4'-DDT	ND	0.010	ug/l	1	12/17/13 09:43	
Aldrin	ND	0.010	ug/l	1	12/17/13 09:43	
alpha-BHC	ND	0.010	ug/l	1	12/17/13 09:43	
Aroclor 1016	ND	0.10	ug/l	1	12/17/13 09:43	
Aroclor 1221	ND	0.10	ug/l	1	12/17/13 09:43	
Aroclor 1232	ND	0.10	ug/l	1	12/17/13 09:43	
Aroclor 1242	ND	0.10	ug/l	1	12/17/13 09:43	
Aroclor 1248	ND	0.10	ug/l	1	12/17/13 09:43	
Aroclor 1254	ND	0.10	ug/l	1	12/17/13 09:43	
Aroclor 1260	ND	0.10	ug/l	1	12/17/13 09:43	
beta-BHC	ND	0.010	ug/l	1	12/17/13 09:43	
Chlordane (tech)	ND	0.10	ug/l	1	12/17/13 09:43	
Chlorothalonil	ND	0.050	ug/l	1	12/17/13 09:43	
delta-BHC	ND	0.010	ug/l	1	12/17/13 09:43	
Dieldrin	ND	0.010	ug/l	1	12/17/13 09:43	
Endosulfan I	ND	0.010	ug/l	1	12/17/13 09:43	
Endosulfan II	ND	0.010	ug/l	1	12/17/13 09:43	
Endosulfan sulfate	ND	0.010	ug/l	1	12/17/13 09:43	
Endrin	ND	0.010	ug/l	1	12/17/13 09:43	
Endrin aldehyde	ND	0.010	ug/l	1	12/17/13 09:43	
gamma-BHC (Lindane)	ND	0.010	ug/l	1	12/17/13 09:43	
Heptachlor	ND	0.010	ug/l	1	12/17/13 09:43	
Heptachlor epoxide	ND	0.010	ug/l	1	12/17/13 09:43	
Hexachlorobenzene	ND	0.010	ug/l	1	12/17/13 09:43	
Hexachlorocyclopentadiene	ND	0.050	ug/l	1	12/17/13 09:43	
Methoxychlor	ND	0.010	ug/l	1	12/17/13 09:43	
PCBs, Total	ND	0.50	ug/l	1	12/17/13 09:43	
Propachlor	ND	0.050	ug/l	1	12/17/13 09:43	
Toxaphene	ND	1.0	ug/l	1	12/17/13 09:43	
Trifluralin	ND	0.010	ug/l	1	12/17/13 09:43	
Surr: Decachlorobiphenyl	83 %	Conc:0.0788	70-130	%		
Surr: Tetrachloro-meta-xylene	92 %	Conc:0.0877	70-130	%		



California American Water-Monterey
P.O.BOX 951
Monterey CA, 93942-0951

Date Received: 12/09/13 19:49
Date Reported: 01/06/14 12:51

3L09093-01 ML-4 Zone # 2 (74.5-84.5 ftbgs)

Sampled: 12/06/13 12:25

Sampled By: Nathan Reynolds

Matrix: Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 140.1	Batch: W3L0372	Prepared: 12/07/13 12:00				Analyst: nra
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Threshold Odor Number	1.0	1.0	T.O.N.	1	12/07/13 12:30	
Method: EPA 180.1	Batch: W3L0373	Prepared: 12/07/13 11:30				Analyst: nra
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Turbidity	2.8	0.10	NTU	1	12/07/13 11:55	
Method: EPA 350.1	Batch: W3L0783	Prepared: 12/16/13 10:05				Analyst: rjs
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Ammonia as N, Dissolved	1.7	0.20	mg/l	2	12/16/13 16:55	
Method: EPA 351.2	Batch: W3L0717	Prepared: 12/13/13 12:12				Analyst: rjs
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN, Soluble	0.15	0.10	mg/l	1	12/19/13 12:07	
Method: EPA 353.2	Batch: W3L0369	Prepared: 12/07/13 15:00				Analyst: mbc
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrate as NO3	ND	0.50	mg/l	1	12/07/13 16:24	
NO2+NO3 as N	ND	100	ug/l	1	12/07/13 15:19	
Method: EPA 365.3	Batch: W3L0379	Prepared: 12/07/13 14:45				Analyst: ajp
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
o-Phosphate as P	0.077	0.010	mg/l	1	12/07/13 18:32	**
Method: EPA 365.3	Batch: W3L0675	Prepared: 12/12/13 16:24				Analyst: ajp
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus, Dissolved	0.047	0.010	mg/l	1	12/19/13 11:48	
Method: SM 2120B	Batch: W3L0371	Prepared: 12/07/13 11:30				Analyst: nra
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Color	ND	3.0	Color Units	1	12/07/13 11:40	
Method: SM 2320B	Batch: W3L0691	Prepared: 12/13/13 08:27				Analyst: ajp
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Alkalinity as CaCO3	200	2.0	mg/l	1	12/13/13 10:54	
Alkalinity as CaCO3	200	2.0	mg/l	1	12/13/13 10:54	
Bicarbonate Alkalinity as HCO3	240	2.0	mg/l	1	12/13/13 10:54	
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l	1	12/13/13 10:54	
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l	1	12/13/13 10:54	
Method: SM 2510B	Batch: W3L0862	Prepared: 12/17/13 11:10				Analyst: ajp



California American Water-Monterey
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Date Received: 12/09/13 19:49
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3L09093-01 ML-4 Zone # 2 (74.5-84.5 ftbgs)

Sampled: 12/06/13 12:25

Sampled By: Nathan Reynolds

Matrix: Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: SM 2510B Batch: W3L0862 Prepared: 12/17/13 11:10 Analyst: ajp

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Specific Conductance (EC)	13000	2.0	umhos/cm	1	12/17/13 12:58	
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Method: SM 2540C Batch: W3L0566 Prepared: 12/11/13 10:57 Analyst: ajw

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Total Dissolved Solids	8600	10	mg/l	1	12/11/13 13:35	
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Method: SM 4500H+-B Batch: W3L0378 Prepared: 12/07/13 13:40 Analyst: atl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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pH	6.79	0.10	Units	1	12/07/13 18:47	*
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Method: SM 5540C Batch: W3L0375 Prepared: 12/07/13 13:53 Analyst: nra

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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MBAS	ND	0.050	mg/l	1	12/07/13 13:56	
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Method: Various Batch: [CALC] Prepared: 12/13/13 15:22 Analyst: atl

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Total Anions	140	12	meq/l	500	12/13/13 21:24	
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Diquat and Paraquat by EPA 549.2

Method: EPA 549.2 Batch: W3L0464 Prepared: 12/10/13 09:23 Analyst: cwh

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Diquat	ND	4.0	ug/l	1	12/11/13 13:51	
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Endothall By EPA 548.1

Method: EPA 548.1 Batch: W3L0699 Prepared: 12/13/13 09:37 Analyst: abj

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Endothall	ND	45	ug/l	1	12/23/13 11:06	
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Fumigants by EPA Method 504.1

Method: EPA 504.1 Batch: W3L0818 Prepared: 12/16/13 13:07 Analyst: jch

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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1,2-Dibromo-3-chloropropane	ND	0.010	ug/l	1	12/20/13 00:14	
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1,2-Dibromoethane (EDB)	ND	0.020	ug/l	1	12/20/13 00:14	
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Glyphosate by EPA 547

Method: EPA 547 Batch: W3L0486 Prepared: 12/10/13 11:37 Analyst: cwh

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
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Glyphosate	ND	5.0	ug/l	1	12/10/13 13:00	
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Metals by EPA 200 Series Methods



California American Water-Monterey
P.O. BOX 951
Monterey CA, 93942-0951

Date Received: 12/09/13 19:49
Date Reported: 01/06/14 12:51

3L09093-01 ML-4 Zone # 2 (74.5-84.5 ftbgs)

Sampled: 12/06/13 12:25

Sampled By: Nathan Reynolds

Matrix: Water

Metals by EPA 200 Series Methods

Method: [CALC]	Batch: [CALC]	Prepared: 12/20/13 16:38				Analyst: jck
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Total Cations	140	0.037	meq/l	1	12/24/13 10:59	

Method: EPA 200.7	Batch: [CALC]	Prepared: 12/20/13 16:38				Analyst: jck
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Calcium Hardness as CaCO3	1830	0.250	mg/l	1	12/24/13 10:59	

Method: EPA 200.7	Batch: W3L1101	Prepared: 12/20/13 16:38				Analyst: jck
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Barium, Dissolved	0.34	0.0020	mg/l	1	12/24/13 10:56	
Boron, Dissolved	190	10	ug/l	1	12/24/13 10:56	
Calcium, Dissolved	730	0.100	mg/l	1	12/24/13 10:56	
Calcium, Total	734	0.100	mg/l	1	12/24/13 10:59	
Iron, Dissolved	ND	20	ug/l	2	12/24/13 11:06	M-04
Iron, Total	10	0.010	mg/l	1	12/24/13 10:59	
Magnesium, Dissolved	507	0.100	mg/l	1	12/24/13 10:56	
Magnesium, Total	512	0.100	mg/l	1	12/24/13 10:59	
Manganese, Dissolved	5000	5.0	ug/l	1	12/24/13 10:56	
Manganese, Total	5.1	0.0050	mg/l	1	12/24/13 10:59	
Potassium, Dissolved	36	0.10	mg/l	1	12/24/13 10:56	
Potassium, Total	37	0.10	mg/l	1	12/24/13 10:59	
Silica as SiO2, Dissolved	40	0.10	mg/l	1	12/24/13 10:56	
Sodium, Dissolved	1400	0.50	mg/l	1	12/24/13 10:56	
Sodium, Total	1400	0.50	mg/l	1	12/24/13 10:59	
Strontium, Dissolved	5300	2.0	ug/l	1	12/24/13 10:56	

Method: EPA 200.8	Batch: W3L1103	Prepared: 12/20/13 16:44				Analyst: rrl
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Aluminum, Total	17	5.0	ug/l	1	12/27/13 01:50	
Arsenic, Total	0.71	0.40	ug/l	1	12/27/13 01:50	
Copper, Total	11	0.50	ug/l	1	12/27/13 01:50	
Zinc, Total	29	5.0	ug/l	1	12/27/13 01:50	

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2	Batch: W3L0431	Prepared: 12/10/13 10:34				Analyst: abj
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Alachlor	ND	0.10	ug/l	1	12/13/13 20:07	
Atrazine	ND	0.10	ug/l	1	12/13/13 20:07	
Benzo (a) pyrene	ND	0.10	ug/l	1	12/13/13 20:07	
Bis(2-ethylhexyl)adipate	ND	5.0	ug/l	1	12/13/13 20:07	
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/l	1	12/13/13 20:07	



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3L09093-01 ML-4 Zone # 2 (74.5-84.5 ftbgs)

Sampled: 12/06/13 12:25

Sampled By: Nathan Reynolds

Matrix: Water

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2

Batch: W3L0431

Prepared: 12/10/13 10:34

Analyst: abj

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Bromacil	ND	0.50	ug/l	1	12/13/13 20:07	
Butachlor	ND	0.10	ug/l	1	12/13/13 20:07	
Captan	ND	1.0	ug/l	1	12/13/13 20:07	
Chloroprotham	ND	0.10	ug/l	1	12/13/13 20:07	
Cyanazine	ND	0.10	ug/l	1	12/13/13 20:07	
Diazinon	ND	0.10	ug/l	1	12/13/13 20:07	
Dimethoate	ND	0.20	ug/l	1	12/13/13 20:07	
Diphenamid	ND	0.10	ug/l	1	12/13/13 20:07	
Disulfoton	ND	0.10	ug/l	1	12/13/13 20:07	
EPTC	ND	0.10	ug/l	1	12/13/13 20:07	
Metolachlor	ND	0.10	ug/l	1	12/13/13 20:07	
Metribuzin	ND	0.10	ug/l	1	12/13/13 20:07	
Molinate	ND	0.10	ug/l	1	12/13/13 20:07	
Prometon	ND	0.10	ug/l	1	12/13/13 20:07	
Prometryn	ND	0.10	ug/l	1	12/13/13 20:07	
Simazine	ND	0.10	ug/l	1	12/13/13 20:07	
Terbacil	ND	2.0	ug/l	1	12/13/13 20:07	
Thiobencarb	ND	0.10	ug/l	1	12/13/13 20:07	
Trithion	ND	0.10	ug/l	1	12/13/13 20:07	
Surr: 1,3-Dimethyl-2-nitrobenzene	99 %	Conc:4.94	73-138	%		
Surr: Perylene-d12	28 %	Conc:1.38	30-118	%		S-11
Surr: Triphenyl phosphate	105 %	Conc:5.24	70-149	%		

Subcontracted Analyses

Method: EPA 906.0

Batch: W4A0158

Prepared: 12/19/13 15:48

Analyst: sub

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Tritium	-110		pCi/L	1	12/19/13 15:48	A-01
Counting Error (+/-): 130	MDA: 240					

Volatile Organic Compounds by EPA Method 524.2

Method: EPA 524.2

Batch: W3L0452

Prepared: 12/10/13 08:29

Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l	1	12/10/13 22:45	
1,1,1-Trichloroethane	ND	0.50	ug/l	1	12/10/13 22:45	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	1	12/10/13 22:45	
1,1,2-Trichloroethane	ND	0.50	ug/l	1	12/10/13 22:45	
1,1-Dichloroethane	ND	0.50	ug/l	1	12/10/13 22:45	
1,1-Dichloroethene	ND	0.50	ug/l	1	12/10/13 22:45	
1,1-Dichloropropene	ND	0.50	ug/l	1	12/10/13 22:45	
1,2,3-Trichlorobenzene	ND	0.50	ug/l	1	12/10/13 22:45	



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3L09093-01 ML-4 Zone # 2 (74.5-84.5 ftbgs)

Sampled: 12/06/13 12:25

Sampled By: Nathan Reynolds

Matrix: Water

Volatile Organic Compounds by EPA Method 524.2

Method: EPA 524.2

Batch: W3L0452

Prepared: 12/10/13 08:29

Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,2,3-Trichloropropane	ND	0.50	ug/l	1	12/10/13 22:45	
1,2,4-Trichlorobenzene	ND	0.50	ug/l	1	12/10/13 22:45	
1,2,4-Trimethylbenzene	ND	0.50	ug/l	1	12/10/13 22:45	
1,2-Dichloroethane	ND	0.50	ug/l	1	12/10/13 22:45	
1,2-Dichloropropane	ND	0.50	ug/l	1	12/10/13 22:45	
1,3,5-Trimethylbenzene	ND	0.50	ug/l	1	12/10/13 22:45	
1,3-Dichloropropane	ND	0.50	ug/l	1	12/10/13 22:45	
1,3-Dichloropropene, Total	ND	0.50	ug/l	1	12/10/13 22:45	
2,2-Dichloropropane	ND	0.50	ug/l	1	12/10/13 22:45	
2-Butanone	ND	5.0	ug/l	1	12/10/13 22:45	
2-Chloroethyl vinyl ether	ND	1.0	ug/l	1	12/10/13 22:45	
2-Chlorotoluene	ND	0.50	ug/l	1	12/10/13 22:45	
2-Hexanone	ND	5.0	ug/l	1	12/10/13 22:45	
4-Chlorotoluene	ND	0.50	ug/l	1	12/10/13 22:45	
4-Methyl-2-pentanone	ND	5.0	ug/l	1	12/10/13 22:45	
Benzene	ND	0.50	ug/l	1	12/10/13 22:45	
Bromobenzene	ND	0.50	ug/l	1	12/10/13 22:45	
Bromochloromethane	ND	0.50	ug/l	1	12/10/13 22:45	
Bromodichloromethane	ND	0.50	ug/l	1	12/10/13 22:45	
Bromoform	ND	0.50	ug/l	1	12/10/13 22:45	
Bromomethane	ND	0.50	ug/l	1	12/10/13 22:45	
Carbon tetrachloride	ND	0.50	ug/l	1	12/10/13 22:45	
Chlorobenzene	ND	0.50	ug/l	1	12/10/13 22:45	
Chloroethane	ND	0.50	ug/l	1	12/10/13 22:45	
Chloroform	ND	0.50	ug/l	1	12/10/13 22:45	
Chloromethane	ND	0.50	ug/l	1	12/10/13 22:45	
cis-1,2-Dichloroethene	ND	0.50	ug/l	1	12/10/13 22:45	
cis-1,3-Dichloropropene	ND	0.50	ug/l	1	12/10/13 22:45	
Dibromochloromethane	ND	0.50	ug/l	1	12/10/13 22:45	
Dibromomethane	ND	0.50	ug/l	1	12/10/13 22:45	
Dichlorodifluoromethane (Freon 12)	ND	0.50	ug/l	1	12/10/13 22:45	
Di-isopropyl ether	ND	2.0	ug/l	1	12/10/13 22:45	
Ethyl tert-butyl ether	ND	2.0	ug/l	1	12/10/13 22:45	
Ethylbenzene	ND	0.50	ug/l	1	12/10/13 22:45	
Freon 113	ND	5.0	ug/l	1	12/10/13 22:45	
Hexachlorobutadiene	ND	0.50	ug/l	1	12/10/13 22:45	
Isopropylbenzene	ND	0.50	ug/l	1	12/10/13 22:45	
m,p-Xylene	ND	0.50	ug/l	1	12/10/13 22:45	
m-Dichlorobenzene	ND	0.50	ug/l	1	12/10/13 22:45	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/l	1	12/10/13 22:45	



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3L09093-01 ML-4 Zone # 2 (74.5-84.5 ftbgs)

Sampled: 12/06/13 12:25

Sampled By: Nathan Reynolds

Matrix: Water

Volatile Organic Compounds by EPA Method 524.2

Method: EPA 524.2

Batch: W3L0452

Prepared: 12/10/13 08:29

Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Methylene chloride	ND	0.50	ug/l	1	12/10/13 22:45	
Naphthalene	ND	0.50	ug/l	1	12/10/13 22:45	
n-Butylbenzene	ND	0.50	ug/l	1	12/10/13 22:45	
n-Propylbenzene	ND	0.50	ug/l	1	12/10/13 22:45	
o-Dichlorobenzene	ND	0.50	ug/l	1	12/10/13 22:45	
o-Xylene	ND	0.50	ug/l	1	12/10/13 22:45	
p-Dichlorobenzene	ND	0.50	ug/l	1	12/10/13 22:45	
p-Isopropyltoluene	ND	0.50	ug/l	1	12/10/13 22:45	
sec-Butylbenzene	ND	0.50	ug/l	1	12/10/13 22:45	
Styrene	ND	0.50	ug/l	1	12/10/13 22:45	
Tert-amyl methyl ether	ND	2.0	ug/l	1	12/10/13 22:45	
tert-Butylbenzene	ND	0.50	ug/l	1	12/10/13 22:45	
Tetrachloroethene	ND	0.50	ug/l	1	12/10/13 22:45	
THMs, Total	ND	2.0	ug/l	1	12/10/13 22:45	
Toluene	ND	0.50	ug/l	1	12/10/13 22:45	
trans-1,2-Dichloroethene	ND	0.50	ug/l	1	12/10/13 22:45	
trans-1,3-Dichloropropene	ND	0.50	ug/l	1	12/10/13 22:45	
Trichloroethene	ND	0.50	ug/l	1	12/10/13 22:45	
Trichlorofluoromethane	ND	0.50	ug/l	1	12/10/13 22:45	
Vinyl chloride	ND	0.50	ug/l	1	12/10/13 22:45	
Xylenes, Total	ND	1.0	ug/l	1	12/10/13 22:45	
Surr: 1,2-Dichlorobenzene-d4	81 %	Conc:8.06	70-130	%		
Surr: 4-Bromofluorobenzene	97 %	Conc:9.69	70-130	%		



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QUALITY CONTROL SECTION



California American Water-Monterey
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Date Received: 12/09/13 19:49
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Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

Batch W3L0650 - EPA 300.1

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Blank (W3L0650-BLK1)			Analyzed: 12/13/13 17:23							
Bromide	ND	10	ug/l							
Surr: Dichloroacetate	497		ug/l	500		99	90-115			
LCS (W3L0650-BS1)			Analyzed: 12/13/13 17:23							
Bromide	106	10	ug/l	100		106	85-115			
Surr: Dichloroacetate	480		ug/l	500		96	90-115			
Matrix Spike (W3L0650-MS1)			Source: 3L10068-02 Analyzed: 12/13/13 17:23							
Bromide	102	10	ug/l	100	ND	102	73-125			
Surr: Dichloroacetate	489		ug/l	500		98	90-115			
Matrix Spike Dup (W3L0650-MSD1)			Source: 3L10068-02 Analyzed: 12/13/13 17:23							
Bromide	103	10	ug/l	100	ND	103	73-125	0.6	20	
Surr: Dichloroacetate	500		ug/l	500		100	90-115			

Batch W3L0726 - EPA 300.0

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Blank (W3L0726-BLK1)			Analyzed: 12/13/13 21:24							
Chloride, Total	ND	0.50	mg/l							
Fluoride, Total	ND	0.10	mg/l							
Sulfate as SO4	ND	0.50	mg/l							
LCS (W3L0726-BS1)			Analyzed: 12/13/13 21:24							
Chloride, Total	3.93	0.50	mg/l	4.00		98	90-110			
Fluoride, Total	1.96	0.10	mg/l	2.00		98	90-110			
Sulfate as SO4	8.54	0.50	mg/l	8.00		107	90-110			
Matrix Spike (W3L0726-MS1)			Source: 3L11073-01 Analyzed: 12/13/13 21:24							
Chloride, Total	166	12	mg/l	100	69.0	97	76-118			
Fluoride, Total	47.9	2.5	mg/l	50.0	1.31	93	86-107			
Sulfate as SO4	499	12	mg/l	200	304	98	78-111			
Matrix Spike Dup (W3L0726-MSD1)			Source: 3L11073-01 Analyzed: 12/13/13 21:24							
Chloride, Total	166	12	mg/l	100	69.0	97	76-118	0.2	20	
Fluoride, Total	48.3	2.5	mg/l	50.0	1.31	94	86-107	0.8	20	
Sulfate as SO4	515	12	mg/l	200	304	105	78-111	3	20	

Carbamates and Urea Pesticides - Quality Control

Batch W3L0819 - EPA 531.1

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Blank (W3L0819-BLK1)			Analyzed: 12/17/13 01:13							
3-Hydroxycarbofuran	ND	2.0	ug/l							
Aldicarb	ND	2.0	ug/l							
Aldicarb sulfone	ND	2.0	ug/l							
Aldicarb sulfoxide	ND	2.0	ug/l							



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Carbamates and Urea Pesticides - Quality Control

Batch W3L0819 - EPA 531.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0819-BLK1)				Analyzed: 12/17/13 01:13						
Carbaryl	ND	2.0	ug/l							
Carbofuran	ND	2.0	ug/l							
Methiocarb	ND	2.0	ug/l							
Methomyl	ND	2.0	ug/l							
Oxamyl	ND	2.0	ug/l							
Propoxur (Baygon)	ND	2.0	ug/l							
LCS (W3L0819-BS1)				Analyzed: 12/17/13 01:13						
3-Hydroxycarbofuran	10.6	2.0	ug/l	10.0		106	80-120			
Aldicarb	11.1	2.0	ug/l	10.0		111	80-120			
Aldicarb sulfone	10.6	2.0	ug/l	10.0		106	80-120			
Aldicarb sulfoxide	11.4	2.0	ug/l	10.0		114	80-120			
Carbaryl	11.6	2.0	ug/l	10.0		116	80-120			
Carbofuran	11.0	2.0	ug/l	10.0		110	80-120			
Methiocarb	11.5	2.0	ug/l	10.0		115	80-120			
Methomyl	10.5	2.0	ug/l	10.0		105	80-120			
Oxamyl	11.1	2.0	ug/l	10.0		111	80-120			
Propoxur (Baygon)	10.4	2.0	ug/l	10.0		104	80-120			
Matrix Spike (W3L0819-MS1)				Source: 3L09082-05		Analyzed: 12/17/13 01:13				
3-Hydroxycarbofuran	8.90	2.0	ug/l	10.0	ND	89	65-135			
Aldicarb	9.90	2.0	ug/l	10.0	ND	99	65-135			
Aldicarb sulfone	7.56	2.0	ug/l	10.0	ND	76	65-135			
Aldicarb sulfoxide	8.52	2.0	ug/l	10.0	ND	85	65-135			
Carbaryl	9.23	2.0	ug/l	10.0	ND	92	65-135			
Carbofuran	9.92	2.0	ug/l	10.0	ND	99	65-135			
Methiocarb	9.54	2.0	ug/l	10.0	ND	95	65-135			
Methomyl	8.36	2.0	ug/l	10.0	ND	84	65-135			
Oxamyl	8.08	2.0	ug/l	10.0	ND	81	65-135			
Propoxur (Baygon)	7.58	2.0	ug/l	10.0	ND	76	65-135			
Matrix Spike Dup (W3L0819-MSD1)				Source: 3L09082-05		Analyzed: 12/17/13 01:13				
3-Hydroxycarbofuran	7.88	2.0	ug/l	10.0	ND	79	65-135	12	30	
Aldicarb	9.44	2.0	ug/l	10.0	ND	94	65-135	5	30	
Aldicarb sulfone	8.02	2.0	ug/l	10.0	ND	80	65-135	6	30	
Aldicarb sulfoxide	9.49	2.0	ug/l	10.0	ND	95	65-135	11	30	
Carbaryl	9.66	2.0	ug/l	10.0	ND	97	65-135	5	30	
Carbofuran	8.36	2.0	ug/l	10.0	ND	84	65-135	17	30	
Methiocarb	7.58	2.0	ug/l	10.0	ND	76	65-135	23	30	
Methomyl	9.07	2.0	ug/l	10.0	ND	91	65-135	8	30	
Oxamyl	9.58	2.0	ug/l	10.0	ND	96	65-135	17	30	
Propoxur (Baygon)	7.77	2.0	ug/l	10.0	ND	78	65-135	3	30	

Chlorinated Herbicides - Quality Control

Batch W3L0427 - EPA 515.3



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Chlorinated Herbicides - Quality Control

Batch W3L0427 - EPA 515.3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0427-BLK1)				Analyzed: 12/12/13 17:48						
2,4,5-T	ND	0.20	ug/l							
2,4,5-TP (Silvex)	ND	0.20	ug/l							
2,4-D	ND	0.40	ug/l							
2,4-DB	ND	2.0	ug/l							
3,5-Dichlorobenzoic acid	ND	1.0	ug/l							
Acifluorfen	ND	0.40	ug/l							
Bentazon	ND	2.0	ug/l							
Dalapon	ND	0.40	ug/l							
DCPA	ND	0.10	ug/l							
Dicamba	ND	0.60	ug/l							
Dichloroprop	ND	0.30	ug/l							
Dinoseb	ND	0.40	ug/l							
Pentachlorophenol	ND	0.20	ug/l							
Picloram	ND	0.60	ug/l							
Surr: 2,4-DCAA	7.91		ug/l	10.0		79	70-130			
LCS (W3L0427-BS1)				Analyzed: 12/12/13 18:16						
2,4,5-T	3.65	0.20	ug/l	4.00		91	70-130			
2,4,5-TP (Silvex)	3.68	0.20	ug/l	4.00		92	70-130			
2,4-D	8.45	0.40	ug/l	8.00		106	70-130			
2,4-DB	12.3	2.0	ug/l	16.0		77	70-130			
3,5-Dichlorobenzoic acid	8.17	1.0	ug/l	8.00		102	70-130			
Acifluorfen	3.09	0.40	ug/l	4.00		77	70-130			
Bentazon	13.4	2.0	ug/l	16.0		84	70-130			
Dalapon	7.70	0.40	ug/l	8.00		96	70-130			
DCPA	3.36	0.10	ug/l	4.00		84	70-130			
Dicamba	7.08	0.60	ug/l	8.00		88	70-130			
Dichloroprop	8.47	0.30	ug/l	8.00		106	70-130			
Dinoseb	2.98	0.40	ug/l	4.00		74	70-130			
Pentachlorophenol	3.45	0.20	ug/l	4.00		86	70-130			
Picloram	3.81	0.60	ug/l	4.00		95	70-130			
Surr: 2,4-DCAA	8.85		ug/l	10.0		89	70-130			
Matrix Spike (W3L0427-MS1)				Source: 3L04018-01 Analyzed: 12/12/13 18:44						
2,4,5-T	3.55	0.20	ug/l	4.00	ND	89	70-130			
2,4,5-TP (Silvex)	3.59	0.20	ug/l	4.00	ND	90	70-130			
2,4-D	8.23	0.40	ug/l	8.00	ND	103	70-130			
2,4-DB	15.1	2.0	ug/l	16.0	ND	94	70-130			
3,5-Dichlorobenzoic acid	6.67	1.0	ug/l	8.00	ND	83	70-130			
Acifluorfen	2.74	0.40	ug/l	4.00	ND	68	70-130			
Bentazon	12.9	2.0	ug/l	16.0	ND	80	70-130			
Dalapon	7.67	0.40	ug/l	8.00	ND	96	70-130			
DCPA	3.25	0.10	ug/l	4.00	ND	81	70-130			
Dicamba	6.73	0.60	ug/l	8.00	ND	84	70-130			
Dichloroprop	8.23	0.30	ug/l	8.00	ND	103	70-130			
Dinoseb	2.87	0.40	ug/l	4.00	ND	72	70-130			

MS-05



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Chlorinated Herbicides - Quality Control

Batch W3L0427 - EPA 515.3

Analyte	Reporting Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike (W3L0427-MS1)				Source: 3L04018-01		Analyzed: 12/12/13 18:44				
Pentachlorophenol	3.36	0.20	ug/l	4.00	ND	84	70-130			
Picloram	3.14	0.60	ug/l	4.00	ND	78	70-130			
<i>Surr: 2,4-DCAA</i>	8.49		ug/l	10.0		85	70-130			
Matrix Spike (W3L0427-MS2)				Source: 3L09001-01		Analyzed: 12/12/13 19:39				
2,4,5-T	3.74	0.20	ug/l	4.00	ND	94	70-130			
2,4,5-TP (Silvex)	3.40	0.20	ug/l	4.00	ND	85	70-130			
2,4-D	9.62	0.40	ug/l	8.00	ND	120	70-130			
2,4-DB	15.9	2.0	ug/l	16.0	ND	99	70-130			
3,5-Dichlorobenzoic acid	6.65	1.0	ug/l	8.00	ND	83	70-130			
Acifluorfen	5.46	0.40	ug/l	4.00	ND	137	70-130			MS-05
Bentazon	13.5	2.0	ug/l	16.0	ND	84	70-130			
Dalapon	7.43	0.40	ug/l	8.00	ND	93	70-130			
DCPA	3.32	0.10	ug/l	4.00	ND	83	70-130			
Dicamba	6.79	0.60	ug/l	8.00	ND	85	70-130			
Dichloroprop	8.61	0.30	ug/l	8.00	ND	108	70-130			
Dinoseb	3.42	0.40	ug/l	4.00	ND	86	70-130			
Pentachlorophenol	3.58	0.20	ug/l	4.00	0.253	83	70-130			
Picloram	4.12	0.60	ug/l	4.00	ND	103	70-130			
<i>Surr: 2,4-DCAA</i>	9.21		ug/l	10.0		92	70-130			
Matrix Spike Dup (W3L0427-MSD1)				Source: 3L04018-01		Analyzed: 12/12/13 19:11				
2,4,5-T	3.56	0.20	ug/l	4.00	ND	89	70-130	0.3	30	
2,4,5-TP (Silvex)	3.60	0.20	ug/l	4.00	ND	90	70-130	0.3	30	
2,4-D	8.31	0.40	ug/l	8.00	ND	104	70-130	1	30	
2,4-DB	15.1	2.0	ug/l	16.0	ND	94	70-130	0.06	30	
3,5-Dichlorobenzoic acid	6.74	1.0	ug/l	8.00	ND	84	70-130	1	30	
Acifluorfen	2.83	0.40	ug/l	4.00	ND	71	70-130	4	30	
Bentazon	12.9	2.0	ug/l	16.0	ND	81	70-130	0.5	30	
Dalapon	7.75	0.40	ug/l	8.00	ND	97	70-130	1	30	
DCPA	3.21	0.10	ug/l	4.00	ND	80	70-130	1	30	
Dicamba	6.80	0.60	ug/l	8.00	ND	85	70-130	1	30	
Dichloroprop	8.21	0.30	ug/l	8.00	ND	103	70-130	0.2	30	
Dinoseb	2.93	0.40	ug/l	4.00	ND	73	70-130	2	30	
Pentachlorophenol	3.37	0.20	ug/l	4.00	ND	84	70-130	0.6	30	
Picloram	3.16	0.60	ug/l	4.00	ND	79	70-130	0.8	30	
<i>Surr: 2,4-DCAA</i>	8.70		ug/l	10.0		87	70-130			
Matrix Spike Dup (W3L0427-MSD2)				Source: 3L09001-01		Analyzed: 12/12/13 20:07				
2,4,5-T	3.81	0.20	ug/l	4.00	ND	95	70-130	2	30	
2,4,5-TP (Silvex)	3.42	0.20	ug/l	4.00	ND	86	70-130	0.8	30	
2,4-D	9.76	0.40	ug/l	8.00	ND	122	70-130	2	30	
2,4-DB	15.8	2.0	ug/l	16.0	ND	99	70-130	0.3	30	
3,5-Dichlorobenzoic acid	6.78	1.0	ug/l	8.00	ND	85	70-130	2	30	
Acifluorfen	5.94	0.40	ug/l	4.00	ND	149	70-130	8	30	MS-05
Bentazon	13.6	2.0	ug/l	16.0	ND	85	70-130	1	30	
Dalapon	7.46	0.40	ug/l	8.00	ND	93	70-130	0.4	30	



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Chlorinated Herbicides - Quality Control

Batch W3L0427 - EPA 515.3

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Matrix Spike Dup (W3L0427-MSD2)		Source: 3L09001-01		Analyzed: 12/12/13 20:07						
DCPA	3.30	0.10	ug/l	4.00	ND	82	70-130	0.6	30	
Dicamba	7.00	0.60	ug/l	8.00	ND	88	70-130	3	30	
Dichloroprop	8.71	0.30	ug/l	8.00	ND	109	70-130	1	30	
Dinoseb	3.80	0.40	ug/l	4.00	ND	95	70-130	10	30	
Pentachlorophenol	3.57	0.20	ug/l	4.00	0.253	83	70-130	0.3	30	
Picloram	3.70	0.60	ug/l	4.00	ND	92	70-130	11	30	
Surr: 2,4-DCAA	9.36		ug/l	10.0		94	70-130			

Batch W3L0474 - EPA 508

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Blank (W3L0474-BLK1)		Analyzed: 12/14/13 02:44								
4,4'-DDD	ND	0.010	ug/l							
4,4'-DDE	ND	0.010	ug/l							
4,4'-DDT	ND	0.010	ug/l							
Aldrin	ND	0.010	ug/l							
alpha-BHC	ND	0.010	ug/l							
Aroclor 1016	ND	0.10	ug/l							
Aroclor 1221	ND	0.10	ug/l							
Aroclor 1232	ND	0.10	ug/l							
Aroclor 1242	ND	0.10	ug/l							
Aroclor 1248	ND	0.10	ug/l							
Aroclor 1254	ND	0.10	ug/l							
Aroclor 1260	ND	0.10	ug/l							
beta-BHC	ND	0.010	ug/l							
Chlordane (tech)	ND	0.10	ug/l							
Chlorothalonil	ND	0.050	ug/l							
delta-BHC	ND	0.010	ug/l							
Dieldrin	ND	0.010	ug/l							
Endosulfan I	ND	0.010	ug/l							
Endosulfan II	ND	0.010	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							
Endrin	ND	0.010	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.010	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.010	ug/l							
Hexachlorobenzene	ND	0.010	ug/l							
Hexachlorocyclopentadiene	ND	0.050	ug/l							
Methoxychlor	ND	0.010	ug/l							
PCBs, Total	ND	0.50	ug/l							
Propachlor	ND	0.050	ug/l							
Toxaphene	ND	1.0	ug/l							
Trifluralin	ND	0.010	ug/l							



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Chlorinated Pesticides and/or PCBs - Quality Control

Batch W3L0474 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0474-BLK1)				Analyzed: 12/14/13 02:44						
Surr: Decachlorobiphenyl	0.0758		ug/l	0.100		76	70-130			
Surr: Tetrachloro-meta-xylene	0.0860		ug/l	0.100		86	70-130			
Blank (W3L0474-BLK2)				Analyzed: 12/16/13 16:26						
4,4'-DDD	ND	0.010	ug/l							QC-2
4,4'-DDE	ND	0.010	ug/l							QC-2
4,4'-DDT	ND	0.010	ug/l							QC-2
Aldrin	ND	0.010	ug/l							QC-2
alpha-BHC	ND	0.010	ug/l							QC-2
Aroclor 1016	ND	0.10	ug/l							QC-2
Aroclor 1221	ND	0.10	ug/l							QC-2
Aroclor 1232	ND	0.10	ug/l							QC-2
Aroclor 1242	ND	0.10	ug/l							QC-2
Aroclor 1248	ND	0.10	ug/l							QC-2
Aroclor 1254	ND	0.10	ug/l							QC-2
Aroclor 1260	ND	0.10	ug/l							QC-2
beta-BHC	ND	0.010	ug/l							QC-2
Chlordane (tech)	ND	0.10	ug/l							QC-2
Chlorothalonil	ND	0.050	ug/l							QC-2
delta-BHC	ND	0.010	ug/l							QC-2
Dieldrin	ND	0.010	ug/l							QC-2
Endosulfan I	ND	0.010	ug/l							QC-2
Endosulfan II	ND	0.010	ug/l							QC-2
Endosulfan sulfate	ND	0.010	ug/l							QC-2
Endrin	ND	0.010	ug/l							QC-2
Endrin aldehyde	ND	0.010	ug/l							QC-2
gamma-BHC (Lindane)	ND	0.010	ug/l							QC-2
Heptachlor	ND	0.010	ug/l							QC-2
Heptachlor epoxide	ND	0.010	ug/l							QC-2
Hexachlorobenzene	ND	0.010	ug/l							QC-2
Hexachlorocyclopentadiene	ND	0.050	ug/l							QC-2
Methoxychlor	ND	0.010	ug/l							QC-2
PCBs, Total	ND	0.50	ug/l							QC-2
Propachlor	ND	0.050	ug/l							QC-2
Toxaphene	ND	1.0	ug/l							QC-2
Trifluralin	ND	0.010	ug/l							QC-2
Surr: Decachlorobiphenyl	0.0786		ug/l	0.100		79	70-130			QC-2
Surr: Tetrachloro-meta-xylene	0.0916		ug/l	0.100		92	70-130			QC-2
LCS (W3L0474-BS1)				Analyzed: 12/14/13 03:15						
4,4'-DDD	0.0844	0.010	ug/l	0.100		84	55-142			
4,4'-DDE	0.0833	0.010	ug/l	0.100		83	49-129			
4,4'-DDT	0.0958	0.010	ug/l	0.100		96	54-160			
Aldrin	0.0750	0.010	ug/l	0.100		75	29-115			
alpha-BHC	0.0818	0.010	ug/l	0.100		82	59-131			
beta-BHC	0.0807	0.010	ug/l	0.100		81	63-136			



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Chlorinated Pesticides and/or PCBs - Quality Control

Batch W3L0474 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3L0474-BS1)										
Analyzed: 12/14/13 03:15										
delta-BHC	0.0861	0.010	ug/l	0.100		86	59-137			
Dieldrin	0.0787	0.010	ug/l	0.100		79	59-135			
Endosulfan I	0.0644	0.010	ug/l	0.100		64	28-138			
Endosulfan II	0.0689	0.010	ug/l	0.100		69	53-133			
Endosulfan sulfate	0.0870	0.010	ug/l	0.100		87	58-155			
Endrin	0.0775	0.010	ug/l	0.100		77	57-148			
Endrin aldehyde	0.0951	0.010	ug/l	0.100		95	45-139			
gamma-BHC (Lindane)	0.0811	0.010	ug/l	0.100		81	59-129			
Heptachlor	0.0826	0.010	ug/l	0.100		83	42-136			
Heptachlor epoxide	0.0774	0.010	ug/l	0.100		77	59-134			
Methoxychlor	0.0831	0.010	ug/l	0.100		83	56-167			
Surr: Decachlorobiphenyl	0.0808		ug/l	0.100		81	70-130			
Surr: Tetrachloro-meta-xylene	0.0895		ug/l	0.100		90	70-130			
LCS (W3L0474-BS2)										
Analyzed: 12/16/13 16:57										
4,4'-DDD	0.0877	0.010	ug/l	0.100		88	55-142			QC-2
4,4'-DDE	0.0905	0.010	ug/l	0.100		90	49-129			QC-2
4,4'-DDT	0.102	0.010	ug/l	0.100		102	54-160			QC-2
Aldrin	0.0805	0.010	ug/l	0.100		80	29-115			QC-2
alpha-BHC	0.0887	0.010	ug/l	0.100		89	59-131			QC-2
beta-BHC	0.0887	0.010	ug/l	0.100		89	63-136			QC-2
delta-BHC	0.0969	0.010	ug/l	0.100		97	59-137			QC-2
Dieldrin	0.0841	0.010	ug/l	0.100		84	59-135			QC-2
Endosulfan I	0.0699	0.010	ug/l	0.100		70	28-138			QC-2
Endosulfan II	0.0749	0.010	ug/l	0.100		75	53-133			QC-2
Endosulfan sulfate	0.0959	0.010	ug/l	0.100		96	58-155			QC-2
Endrin	0.0820	0.010	ug/l	0.100		82	57-148			QC-2
Endrin aldehyde	0.0946	0.010	ug/l	0.100		95	45-139			QC-2
gamma-BHC (Lindane)	0.0883	0.010	ug/l	0.100		88	59-129			QC-2
Heptachlor	0.0856	0.010	ug/l	0.100		86	42-136			QC-2
Heptachlor epoxide	0.0842	0.010	ug/l	0.100		84	59-134			QC-2
Methoxychlor	0.0853	0.010	ug/l	0.100		85	56-167			QC-2
Surr: Decachlorobiphenyl	0.0871		ug/l	0.100		87	70-130			QC-2
Surr: Tetrachloro-meta-xylene	0.0971		ug/l	0.100		97	70-130			QC-2
LCS Dup (W3L0474-BSD1)										
Analyzed: 12/14/13 03:45										
4,4'-DDD	0.0883	0.010	ug/l	0.100		88	55-142	4	25	
4,4'-DDE	0.0854	0.010	ug/l	0.100		85	49-129	2	25	
4,4'-DDT	0.0999	0.010	ug/l	0.100		100	54-160	4	25	
Aldrin	0.0751	0.010	ug/l	0.100		75	29-115	0.2	25	
alpha-BHC	0.0823	0.010	ug/l	0.100		82	59-131	0.5	25	
beta-BHC	0.0831	0.010	ug/l	0.100		83	63-136	3	25	
delta-BHC	0.0922	0.010	ug/l	0.100		92	59-137	7	25	
Dieldrin	0.0797	0.010	ug/l	0.100		80	59-135	1	25	
Endosulfan I	0.0652	0.010	ug/l	0.100		65	28-138	1	25	
Endosulfan II	0.0702	0.010	ug/l	0.100		70	53-133	2	25	



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Chlorinated Pesticides and/or PCBs - Quality Control

Batch W3L0474 - EPA 508

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 12/14/13 03:45										
LCS Dup (W3L0474-BSD1)										
Endosulfan sulfate	0.0899	0.010	ug/l	0.100		90	58-155	3	25	
Endrin	0.0784	0.010	ug/l	0.100		78	57-148	1	25	
Endrin aldehyde	0.0991	0.010	ug/l	0.100		99	45-139	4	25	
gamma-BHC (Lindane)	0.0824	0.010	ug/l	0.100		82	59-129	2	25	
Heptachlor	0.0846	0.010	ug/l	0.100		85	42-136	2	25	
Heptachlor epoxide	0.0780	0.010	ug/l	0.100		78	59-134	0.9	25	
Methoxychlor	0.0852	0.010	ug/l	0.100		85	56-167	3	25	
Surr: Decachlorobiphenyl	0.0775		ug/l	0.100		78	70-130			
Surr: Tetrachloro-meta-xylene	0.0852		ug/l	0.100		85	70-130			

LCS Dup (W3L0474-BSD2)

Analyzed: 12/16/13 17:27

4,4'-DDD	0.0838	0.010	ug/l	0.100		84	55-142	5	25	QC-2
4,4'-DDE	0.0873	0.010	ug/l	0.100		87	49-129	4	25	QC-2
4,4'-DDT	0.0975	0.010	ug/l	0.100		98	54-160	5	25	QC-2
Aldrin	0.0803	0.010	ug/l	0.100		80	29-115	0.2	25	QC-2
alpha-BHC	0.0872	0.010	ug/l	0.100		87	59-131	2	25	QC-2
beta-BHC	0.0863	0.010	ug/l	0.100		86	63-136	3	25	QC-2
delta-BHC	0.0944	0.010	ug/l	0.100		94	59-137	3	25	QC-2
Dieldrin	0.0831	0.010	ug/l	0.100		83	59-135	1	25	QC-2
Endosulfan I	0.0689	0.010	ug/l	0.100		69	28-138	1	25	QC-2
Endosulfan II	0.0730	0.010	ug/l	0.100		73	53-133	3	25	QC-2
Endosulfan sulfate	0.0911	0.010	ug/l	0.100		91	58-155	5	25	QC-2
Endrin	0.0793	0.010	ug/l	0.100		79	57-148	3	25	QC-2
Endrin aldehyde	0.100	0.010	ug/l	0.100		100	45-139	6	25	QC-2
gamma-BHC (Lindane)	0.0866	0.010	ug/l	0.100		87	59-129	2	25	QC-2
Heptachlor	0.0849	0.010	ug/l	0.100		85	42-136	0.9	25	QC-2
Heptachlor epoxide	0.0827	0.010	ug/l	0.100		83	59-134	2	25	QC-2
Methoxychlor	0.0783	0.010	ug/l	0.100		78	56-167	9	25	QC-2
Surr: Decachlorobiphenyl	0.0765		ug/l	0.100		77	70-130			QC-2
Surr: Tetrachloro-meta-xylene	0.0900		ug/l	0.100		90	70-130			QC-2

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W3L0369 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 12/07/13 16:23										
Blank (W3L0369-BLK1)										
Nitrate as NO3	ND	0.50	mg/l							B-07
NO2+NO3 as N	ND	100	ug/l							B-07
Analyzed: 12/07/13 15:14										
LCS (W3L0369-BS1)										
Nitrate as NO3	4.74	0.50	mg/l	4.43		107	90-110			
NO2+NO3 as N	1070	100	ug/l	1000		107	90-110			
Analyzed: 12/07/13 15:21										
Matrix Spike (W3L0369-MS1)	Source: 3L09093-01									
Nitrate as NO3	9.04	0.50	mg/l	8.86	0.322	98	90-110			



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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W3L0369 - EPA 353.2

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Matrix Spike (W3L0369-MS1)				Source: 3L09093-01		Analyzed: 12/07/13 15:21				
NO2+NO3 as N	2040	100	ug/l	2000	73.0	98	90-110			
Matrix Spike Dup (W3L0369-MSD1)				Source: 3L09093-01		Analyzed: 12/07/13 15:23				
Nitrate as NO3	8.87	0.50	mg/l	8.86	0.322	96	90-110	2	20	
NO2+NO3 as N	2000	100	ug/l	2000	73.0	96	90-110	2	20	

Batch W3L0371 - SM 2120B

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
LCS (W3L0371-BS1)				Analyzed: 12/07/13 11:40						
Color	10.0	3.0	Color Units	10.0		100	95-105			
Duplicate (W3L0371-DUP1)				Source: 3L09093-01		Analyzed: 12/07/13 11:40				
Color	ND	3.0	Color Units		0.00					

Batch W3L0372 - EPA 140.1

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Duplicate (W3L0372-DUP1)				Source: 3L09093-01		Analyzed: 12/07/13 12:30				
Threshold Odor Number	1.0	1.0	T.O.N.		1.0			NR	20	

Batch W3L0373 - EPA 180.1

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Blank (W3L0373-BLK1)				Analyzed: 12/07/13 11:55						
Turbidity	ND	0.10	NTU							
LCS (W3L0373-BS1)				Analyzed: 12/07/13 11:55						
Turbidity	11.1	0.10	NTU	11.0		101	90-110			
Duplicate (W3L0373-DUP1)				Source: 3L09093-01		Analyzed: 12/07/13 11:55				
Turbidity	2.78	0.10	NTU		2.78			NR	10	

Batch W3L0375 - SM 5540C

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Blank (W3L0375-BLK1)				Analyzed: 12/07/13 13:56						
MBAS	ND	0.050	mg/l							
LCS (W3L0375-BS1)				Analyzed: 12/07/13 13:56						
MBAS	0.204	0.050	mg/l	0.200		102	82-115			
Matrix Spike (W3L0375-MS1)				Source: 3L09093-01		Analyzed: 12/07/13 13:56				
MBAS	0.249	0.050	mg/l	0.200	0.0375	106	74-123			
Matrix Spike Dup (W3L0375-MSD1)				Source: 3L09093-01		Analyzed: 12/07/13 13:56				
MBAS	0.233	0.050	mg/l	0.200	0.0375	98	74-123	7	20	

Batch W3L0378 - SM 4500H+-B



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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W3L0378 - SM 4500H+-B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W3L0378-BS1)				Analyzed: 12/07/13 18:47						
pH	7.34	0.10	Units	7.41		99	98.8-101			
Duplicate (W3L0378-DUP1)				Source: 3L09050-01 Analyzed: 12/07/13 18:47						
pH	7.46	0.10	Units		7.55			1	3.1	

Batch W3L0379 - EPA 365.3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0379-BLK1)				Analyzed: 12/07/13 18:32						
o-Phosphate as P	ND	0.010	mg/l							
LCS (W3L0379-BS1)				Analyzed: 12/07/13 18:32						
o-Phosphate as P	0.202	0.010	mg/l	0.200		101	88-111			
Matrix Spike (W3L0379-MS1)				Source: 3L09093-01 Analyzed: 12/07/13 18:32						
o-Phosphate as P	0.263	0.010	mg/l	0.200	0.0767	93	85-112			
Matrix Spike Dup (W3L0379-MSD1)				Source: 3L09093-01 Analyzed: 12/07/13 18:32						
o-Phosphate as P	0.280	0.010	mg/l	0.200	0.0767	102	85-112	6	20	

Batch W3L0566 - SM 2540C

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0566-BLK1)				Analyzed: 12/11/13 13:35						
Total Dissolved Solids	ND	10	mg/l							
LCS (W3L0566-BS1)				Analyzed: 12/11/13 13:35						
Total Dissolved Solids	823	10	mg/l	824		100	96-102			
Duplicate (W3L0566-DUP1)				Source: 3L09015-01 Analyzed: 12/11/13 13:35						
Total Dissolved Solids	748	10	mg/l		802			7	10	
Duplicate (W3L0566-DUP2)				Source: 3L09021-01 Analyzed: 12/11/13 13:35						
Total Dissolved Solids	97.0	10	mg/l		97.0			NR	10	

Batch W3L0675 - EPA 365.3

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0675-BLK1)				Analyzed: 12/19/13 11:48						
Phosphorus, Dissolved	ND	0.010	mg/l							
LCS (W3L0675-BS1)				Analyzed: 12/19/13 11:48						
Phosphorus, Dissolved	0.191	0.010	mg/l	0.200		95	90-110			
Matrix Spike (W3L0675-MS1)				Source: 3L09093-01 Analyzed: 12/19/13 11:48						
Phosphorus, Dissolved	0.251	0.010	mg/l	0.200	0.0467	102	85-108			
Matrix Spike Dup (W3L0675-MSD1)				Source: 3L09093-01 Analyzed: 12/19/13 11:48						
Phosphorus, Dissolved	0.258	0.010	mg/l	0.200	0.0467	106	85-108	3	20	

Batch W3L0691 - SM 2320B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W3L0691 - SM 2320B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0691-BLK1)				Analyzed: 12/13/13 10:54						
Alkalinity as CaCO3	ND	2.0	mg/l							
Alkalinity as CaCO3	ND	2.0	mg/l							
Bicarbonate Alkalinity as HCO3	ND	2.0	mg/l							
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l							
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l							
LCS (W3L0691-BS1)				Analyzed: 12/13/13 10:54						
Alkalinity as CaCO3	255	2.0	mg/l	250		102	94-108			
Alkalinity as CaCO3	255	2.0	mg/l	250		102	94-108			
Bicarbonate Alkalinity as HCO3	311	2.0	mg/l	305		102	95-108			
Duplicate (W3L0691-DUP1)				Source: 3L09001-03RE1 Analyzed: 12/13/13 10:54						
Alkalinity as CaCO3	109	2.0	mg/l		108			0.6	15	
Alkalinity as CaCO3	109	2.0	mg/l		108			0.6	15	
Bicarbonate Alkalinity as HCO3	133	2.0	mg/l		132			0.6	15	
Carbonate Alkalinity as CaCO3	ND	2.0	mg/l		ND					
Hydroxide Alkalinity as CaCO3	ND	2.0	mg/l		ND					

Batch W3L0717 - EPA 351.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0717-BLK1)				Analyzed: 12/19/13 12:07						
TKN, Soluble	ND	0.10	mg/l							
Blank (W3L0717-BLK2)				Analyzed: 12/19/13 12:07						
TKN, Soluble	ND	0.10	mg/l							
LCS (W3L0717-BS1)				Analyzed: 12/19/13 12:07						
TKN, Soluble	1.01	0.10	mg/l	1.00		101	90-110			
LCS (W3L0717-BS2)				Analyzed: 12/19/13 12:07						
TKN, Soluble	1.02	0.10	mg/l	1.00		102	90-110			
Matrix Spike (W3L0717-MS1)				Source: 3L09015-01 Analyzed: 12/19/13 12:07						
TKN, Soluble	30.2	1.0	mg/l	10.0	19.5	107	90-110			
Matrix Spike (W3L0717-MS2)				Source: 3L09027-02 Analyzed: 12/19/13 12:07						
TKN, Soluble	5.46	0.40	mg/l	4.00	1.28	104	90-110			
Matrix Spike Dup (W3L0717-MSD1)				Source: 3L09015-01 Analyzed: 12/19/13 12:07						
TKN, Soluble	30.2	1.0	mg/l	10.0	19.5	107	90-110	0.04	10	
Matrix Spike Dup (W3L0717-MSD2)				Source: 3L09027-02 Analyzed: 12/19/13 12:07						
TKN, Soluble	5.42	0.40	mg/l	4.00	1.28	104	90-110	0.7	10	

Batch W3L0783 - EPA 350.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0783-BLK1)				Analyzed: 12/16/13 16:55						
Ammonia as N, Dissolved	ND	0.10	mg/l							
LCS (W3L0783-BS1)				Analyzed: 12/16/13 16:55						
Ammonia as N, Dissolved	0.271	0.10	mg/l	0.250		109	90-110			



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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W3L0783 - EPA 350.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike (W3L0783-MS1)				Source: 3L12030-01		Analyzed: 12/16/13 16:55				
Ammonia as N, Dissolved	0.306	0.10	mg/l	0.250	0.0584	99	90-110			
Matrix Spike Dup (W3L0783-MSD1)				Source: 3L12030-01		Analyzed: 12/16/13 16:55				
Ammonia as N, Dissolved	0.304	0.10	mg/l	0.250	0.0584	98	90-110	0.8	15	

Batch W3L0862 - SM 2510B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0862-BLK1)				Analyzed: 12/17/13 12:58						
Specific Conductance (EC)	ND	2.0	umhos/cm							
LCS (W3L0862-BS1)				Analyzed: 12/17/13 12:58						
Specific Conductance (EC)	5000	2.0	umhos/cm	5000		100	95-105			
Duplicate (W3L0862-DUP1)				Source: 3L09001-07		Analyzed: 12/17/13 12:58				
Specific Conductance (EC)	9630	2.0	umhos/cm		9620			0.1	5	

Diquat and Paraquat by EPA 549.2 - Quality Control

Batch W3L0464 - EPA 549.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0464-BLK1)				Analyzed: 12/11/13 13:51						
Diquat	ND	4.0	ug/l							
LCS (W3L0464-BS1)				Analyzed: 12/11/13 13:51						
Diquat	10.1	4.0	ug/l	20.0		51	48-130			
Matrix Spike (W3L0464-MS1)				Source: 3L05081-01		Analyzed: 12/11/13 13:51				
Diquat	18.4	4.0	ug/l	20.0	ND	92	46-122			
Matrix Spike Dup (W3L0464-MSD1)				Source: 3L05081-01		Analyzed: 12/11/13 13:51				
Diquat	19.3	4.0	ug/l	20.0	ND	96	46-122	5	30	

Endothall By EPA 548.1 - Quality Control

Batch W3L0699 - EPA 548.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0699-BLK1)				Analyzed: 12/23/13 10:05						
Endothall	ND	45	ug/l							
LCS (W3L0699-BS1)				Analyzed: 12/23/13 10:25						
Endothall	97.1	45	ug/l	100		97	31-117			
Matrix Spike (W3L0699-MS1)				Source: 3L09093-01		Analyzed: 12/23/13 10:39				
Endothall	ND	45	ug/l	100	ND	NR	0.1-109			MS-05
Matrix Spike Dup (W3L0699-MSD1)				Source: 3L09093-01		Analyzed: 12/23/13 10:53				
Endothall	ND	45	ug/l	100	ND	NR	0.1-109			MS-05



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Fumigants by EPA Method 504.1 - Quality Control

Batch W3L0818 - EPA 504.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0818-BLK1)				Analyzed: 12/19/13 21:50						
1,2-Dibromo-3-chloropropane	ND	0.010	ug/l							
1,2-Dibromoethane (EDB)	ND	0.020	ug/l							
LCS (W3L0818-BS1)				Analyzed: 12/19/13 22:19						
1,2-Dibromo-3-chloropropane	0.0980	0.010	ug/l	0.100		98	70-130			
1,2-Dibromoethane (EDB)	0.113	0.020	ug/l	0.100		113	70-130			
LCS (W3L0818-BS2)				Analyzed: 12/19/13 22:49						
1,2-Dibromo-3-chloropropane	0.0180	0.010	ug/l	0.0200		90	70-130			
1,2-Dibromoethane (EDB)	0.0170	0.020	ug/l	0.0200		85	70-130			
Matrix Spike (W3L0818-MS1)				Source: 3L12021-04		Analyzed: 12/19/13 23:17				
1,2-Dibromo-3-chloropropane	0.0990	0.010	ug/l	0.100	ND	99	65-135			
1,2-Dibromoethane (EDB)	0.113	0.020	ug/l	0.100	ND	113	65-135			
Matrix Spike Dup (W3L0818-MSD1)				Source: 3L12021-04		Analyzed: 12/19/13 23:46				
1,2-Dibromo-3-chloropropane	0.110	0.010	ug/l	0.100	ND	110	65-135	11	30	
1,2-Dibromoethane (EDB)	0.109	0.020	ug/l	0.100	ND	109	65-135	4	30	

Glyphosate by EPA 547 - Quality Control

Batch W3L0486 - EPA 547

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0486-BLK1)				Analyzed: 12/10/13 13:00						
Glyphosate	ND	5.0	ug/l							
LCS (W3L0486-BS1)				Analyzed: 12/10/13 13:00						
Glyphosate	26.4	5.0	ug/l	25.0		106	62-130			
Matrix Spike (W3L0486-MS1)				Source: 3L09082-02		Analyzed: 12/10/13 13:00				
Glyphosate	18.7	5.0	ug/l	25.0	9.51	37	41-149			MS-05
Matrix Spike Dup (W3L0486-MSD1)				Source: 3L09082-02		Analyzed: 12/10/13 13:00				
Glyphosate	20.8	5.0	ug/l	25.0	9.51	45	41-149	11	30	

Metals by EPA 200 Series Methods - Quality Control

Batch W3L1101 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1101-BLK1)				Analyzed: 12/24/13 10:53						
Barium, Dissolved	ND	0.0020	mg/l							
Boron, Dissolved	ND	10	ug/l							
Calcium, Dissolved	ND	0.100	mg/l							
Calcium, Total	ND	0.100	mg/l							
Iron, Dissolved	ND	10	ug/l							
Iron, Total	ND	0.010	mg/l							



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Metals by EPA 200 Series Methods - Quality Control

Batch W3L1101 - EPA 200.7

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1101-BLK1)										
Analyzed: 12/24/13 10:53										
Magnesium, Dissolved	ND	0.100	mg/l							
Magnesium, Total	ND	0.100	mg/l							
Manganese, Dissolved	ND	5.0	ug/l							
Manganese, Total	ND	0.0050	mg/l							
Potassium, Dissolved	ND	0.10	mg/l							
Potassium, Total	ND	0.10	mg/l							
Silica as SiO2, Dissolved	ND	0.10	mg/l							
Sodium, Dissolved	ND	0.50	mg/l							
Sodium, Total	ND	0.50	mg/l							
Strontium, Dissolved	ND	2.0	ug/l							

LCS (W3L1101-BS1)

Analyzed: 12/24/13 11:04

Barium, Dissolved	0.191	0.0020	mg/l	0.200		95	85-115			
Boron, Dissolved	211	10	ug/l	200		105	85-115			
Calcium, Dissolved	50.9	0.100	mg/l	50.2		101	85-115			
Calcium, Total	50.9	0.100	mg/l	50.2		101	85-115			
Iron, Dissolved	199	10	ug/l	200		100	85-115			
Iron, Total	0.199	0.010	mg/l	0.200		100	85-115			
Magnesium, Dissolved	50.1	0.100	mg/l	50.0		100	85-115			
Magnesium, Total	50.1	0.100	mg/l	50.2		100	85-115			
Manganese, Dissolved	198	5.0	ug/l	200		99	85-115			
Manganese, Total	0.198	0.0050	mg/l	0.200		99	85-115			
Potassium, Dissolved	52.2	0.10	mg/l	52.0		100	85-115			
Potassium, Total	52.2	0.10	mg/l	52.0		100	85-115			
Silica as SiO2, Dissolved	47.6	0.10	mg/l	43.3		110	85-115			
Sodium, Dissolved	82.7	0.50	mg/l	82.6		100	85-115			
Sodium, Total	82.7	0.50	mg/l	82.6		100	85-115			
Strontium, Dissolved	987	2.0	ug/l	1000		99	85-115			

Matrix Spike (W3L1101-MS1)

Source: 3L13055-03

Analyzed: 12/24/13 11:31

Calcium, Total	78.1	0.200	mg/l	50.2	28.5	99	70-130			
Iron, Total	0.692	0.020	mg/l	0.200	0.492	100	70-130			
Magnesium, Total	51.4	0.200	mg/l	50.2	5.24	92	70-130			
Manganese, Total	0.248	0.010	mg/l	0.200	0.0503	99	70-130			
Potassium, Total	315	0.20	mg/l	52.0	246	132	70-130			MS-02
Sodium, Total	14000	1.0	mg/l	82.6	14000	2	70-130			MS-02

Matrix Spike Dup (W3L1101-MSD1)

Source: 3L13055-03

Analyzed: 12/24/13 11:34

Calcium, Total	78.0	0.200	mg/l	50.2	28.5	99	70-130	0.1	30	
Iron, Total	0.694	0.020	mg/l	0.200	0.492	101	70-130	0.3	30	
Magnesium, Total	51.1	0.200	mg/l	50.2	5.24	91	70-130	0.6	30	
Manganese, Total	0.246	0.010	mg/l	0.200	0.0503	98	70-130	0.9	30	
Potassium, Total	320	0.20	mg/l	52.0	246	143	70-130	2	30	MS-02
Sodium, Total	14300	1.0	mg/l	82.6	14000	366	70-130	2	30	MS-02

Batch W3L1103 - EPA 200.8



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Metals by EPA 200 Series Methods - Quality Control

Batch W3L1103 - EPA 200.8

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L1103-BLK1)				Analyzed: 12/27/13 01:17						
Aluminum, Total	ND	5.0	ug/l							
Arsenic, Total	ND	0.40	ug/l							
Copper, Total	ND	0.50	ug/l							
Zinc, Total	ND	5.0	ug/l							
LCS (W3L1103-BS1)				Analyzed: 12/27/13 01:25						
Aluminum, Total	49.4	5.0	ug/l	50.0		99	85-115			
Arsenic, Total	48.1	0.40	ug/l	50.0		96	85-115			
Copper, Total	50.8	0.50	ug/l	50.0		102	85-115			
Zinc, Total	50.4	5.0	ug/l	50.0		101	85-115			
Matrix Spike (W3L1103-MS1)				Source: 3L09093-01		Analyzed: 12/27/13 02:14				
Aluminum, Total	84.1	5.0	ug/l	50.0	17.5	133	70-130			MS-02
Arsenic, Total	50.2	0.40	ug/l	50.0	0.710	99	70-130			
Copper, Total	48.6	0.50	ug/l	50.0	11.3	75	70-130			
Zinc, Total	71.2	5.0	ug/l	50.0	29.3	84	70-130			
Matrix Spike Dup (W3L1103-MSD1)				Source: 3L09093-01		Analyzed: 12/27/13 02:22				
Aluminum, Total	84.3	5.0	ug/l	50.0	17.5	134	70-130	0.2	30	MS-02
Arsenic, Total	51.5	0.40	ug/l	50.0	0.710	102	70-130	3	30	
Copper, Total	49.2	0.50	ug/l	50.0	11.3	76	70-130	1	30	
Zinc, Total	72.5	5.0	ug/l	50.0	29.3	86	70-130	2	30	

Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3L0431 - EPA 525.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0431-BLK1)				Analyzed: 12/13/13 12:12						
Alachlor	ND	0.10	ug/l							
Atrazine	ND	0.10	ug/l							
Benzo (a) pyrene	ND	0.10	ug/l							
Bis(2-ethylhexyl)adipate	ND	5.0	ug/l							
Bis(2-ethylhexyl)phthalate	ND	3.0	ug/l							
Bromacil	ND	0.50	ug/l							
Butachlor	ND	0.10	ug/l							
Captan	ND	1.0	ug/l							
Chloroprotham	ND	0.10	ug/l							
Cyanazine	ND	0.10	ug/l							
Diazinon	ND	0.10	ug/l							
Dimethoate	ND	0.20	ug/l							
Diphenamid	ND	0.10	ug/l							
Disulfoton	ND	0.10	ug/l							
EPTC	ND	0.10	ug/l							
Metolachlor	ND	0.10	ug/l							
Metribuzin	ND	0.10	ug/l							



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Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3L0431 - EPA 525.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0431-BLK1)			Analyzed: 12/13/13 12:12							
Molinate	ND	0.10	ug/l							
Prometon	ND	0.10	ug/l							
Prometryn	ND	0.10	ug/l							
Simazine	ND	0.10	ug/l							
Terbacil	ND	2.0	ug/l							
Thiobencarb	ND	0.10	ug/l							
Trithion	ND	0.10	ug/l							
Surr: 1,3-Dimethyl-2-nitrobenzene	5.16		ug/l	5.00		103	73-138			
Surr: Perylene-d12	3.65		ug/l	5.00		73	30-118			
Surr: Triphenyl phosphate	4.82		ug/l	5.00		96	70-149			
LCS (W3L0431-BS1)			Analyzed: 12/13/13 12:37							
Alachlor	3.57	0.10	ug/l	5.00		71	55-124			
Atrazine	5.00	0.10	ug/l	5.00		100	67-131			
Benzo (a) pyrene	4.54	0.10	ug/l	5.00		91	40-147			
Bis(2-ethylhexyl)adipate	6.30	5.0	ug/l	5.00		126	71-158			
Bis(2-ethylhexyl)phthalate	5.88	3.0	ug/l	5.00		118	68-154			
Bromacil	4.64	0.50	ug/l	5.00		93	62-139			
Butachlor	4.05	0.10	ug/l	5.00		81	61-127			
Captan	3.94	1.0	ug/l	5.00		79	14-159			
Chloroprotham	6.53	0.10	ug/l	5.00		131	77-143			
Cyanazine	5.45	0.10	ug/l	5.00		109	61-129			
Diazinon	3.53	0.10	ug/l	5.00		71	30-120			
Dimethoate	4.75	0.20	ug/l	5.00		95	38-102			
Diphenamid	5.32	0.10	ug/l	5.00		106	77-124			
Disulfoton	5.83	0.10	ug/l	5.00		117	54-156			
EPTC	5.40	0.10	ug/l	5.00		108	82-116			
Metolachlor	4.08	0.10	ug/l	5.00		82	61-123			
Metribuzin	4.14	0.10	ug/l	5.00		83	50-121			
Molinate	5.45	0.10	ug/l	5.00		109	82-117			
Prometon	2.02	0.10	ug/l	5.00		40	17-101			
Prometryn	3.74	0.10	ug/l	5.00		75	57-122			
Simazine	3.82	0.10	ug/l	5.00		76	53-116			
Terbacil	5.79	2.0	ug/l	5.00		116	70-135			
Thiobencarb	4.02	0.10	ug/l	5.00		80	56-125			
Trithion	4.54	0.10	ug/l	5.00		91	60-124			
Surr: 1,3-Dimethyl-2-nitrobenzene	5.15		ug/l	5.00		103	73-138			
Surr: Perylene-d12	6.65		ug/l	5.00		133	30-118			S-11
Surr: Triphenyl phosphate	5.29		ug/l	5.00		106	70-149			
LCS Dup (W3L0431-BSD1)			Analyzed: 12/13/13 13:02							
Alachlor	3.79	0.10	ug/l	5.00		76	55-124	6	30	
Atrazine	5.49	0.10	ug/l	5.00		110	67-131	9	30	
Benzo (a) pyrene	4.74	0.10	ug/l	5.00		95	40-147	4	30	
Bis(2-ethylhexyl)adipate	6.70	5.0	ug/l	5.00		134	71-158	6	30	
Bis(2-ethylhexyl)phthalate	6.05	3.0	ug/l	5.00		121	68-154	3	30	



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Semivolatile Organic Compounds by GC/MS - Quality Control

Batch W3L0431 - EPA 525.2

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
LCS Dup (W3L0431-BSD1)			Analyzed: 12/13/13 13:02							
Bromacil	5.04	0.50	ug/l	5.00		101	62-139	8	30	
Butachlor	4.22	0.10	ug/l	5.00		84	61-127	4	30	
Captan	3.94	1.0	ug/l	5.00		79	14-159	NR	30	
Chlorpropham	6.72	0.10	ug/l	5.00		134	77-143	3	30	
Cyanazine	5.25	0.10	ug/l	5.00		105	61-129	4	30	
Diazinon	3.64	0.10	ug/l	5.00		73	30-120	3	30	
Dimethoate	5.23	0.20	ug/l	5.00		105	38-102	10	30	Q-08
Diphenamid	5.17	0.10	ug/l	5.00		103	77-124	3	30	
Disulfoton	5.97	0.10	ug/l	5.00		119	54-156	2	30	
EPTC	5.64	0.10	ug/l	5.00		113	82-116	4	30	
Metolachlor	4.21	0.10	ug/l	5.00		84	61-123	3	30	
Metribuzin	4.25	0.10	ug/l	5.00		85	50-121	3	30	
Molinate	5.70	0.10	ug/l	5.00		114	82-117	4	30	
Prometon	2.18	0.10	ug/l	5.00		44	17-101	8	30	
Prometryn	3.90	0.10	ug/l	5.00		78	57-122	4	30	
Simazine	3.88	0.10	ug/l	5.00		78	53-116	2	30	
Terbacil	5.51	2.0	ug/l	5.00		110	70-135	5	30	
Thiobencarb	4.06	0.10	ug/l	5.00		81	56-125	1	30	
Trithion	4.74	0.10	ug/l	5.00		95	60-124	4	30	
Surr: 1,3-Dimethyl-2-nitrobenzene	5.24		ug/l	5.00		105	73-138			
Surr: Perylene-d12	6.74		ug/l	5.00		135	30-118			S-11
Surr: Triphenyl phosphate	5.32		ug/l	5.00		106	70-149			

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W3L0452 - EPA 524.2

Analyte	Reporting		Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
	Result	Limit								
Blank (W3L0452-BLK1)			Analyzed: 12/10/13 12:17							
1,1,1,2-Tetrachloroethane	ND	0.50	ug/l							
1,1,1-Trichloroethane	ND	0.50	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/l							
1,1,2-Trichloroethane	ND	0.50	ug/l							
1,1-Dichloroethane	ND	0.50	ug/l							
1,1-Dichloroethene	ND	0.50	ug/l							
1,1-Dichloropropene	ND	0.50	ug/l							
1,2,3-Trichlorobenzene	ND	0.50	ug/l							
1,2,3-Trichloropropane	ND	0.50	ug/l							
1,2,4-Trichlorobenzene	ND	0.50	ug/l							
1,2,4-Trimethylbenzene	ND	0.50	ug/l							
1,2-Dichloroethane	ND	0.50	ug/l							
1,2-Dichloropropane	ND	0.50	ug/l							
1,3,5-Trimethylbenzene	ND	0.50	ug/l							



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Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W3L0452 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0452-BLK1)				Analyzed: 12/10/13 12:17						
1,3-Dichloropropane	ND	0.50	ug/l							
1,3-Dichloropropene, Total	ND	0.50	ug/l							
2,2-Dichloropropane	ND	0.50	ug/l							
2-Butanone	ND	5.0	ug/l							
2-Chloroethyl vinyl ether	ND	1.0	ug/l							
2-Chlorotoluene	ND	0.50	ug/l							
2-Hexanone	ND	5.0	ug/l							
4-Chlorotoluene	ND	0.50	ug/l							
4-Methyl-2-pentanone	ND	5.0	ug/l							
Benzene	ND	0.50	ug/l							
Bromobenzene	ND	0.50	ug/l							
Bromochloromethane	ND	0.50	ug/l							
Bromodichloromethane	ND	0.50	ug/l							
Bromoform	ND	0.50	ug/l							
Bromomethane	ND	0.50	ug/l							
Carbon tetrachloride	ND	0.50	ug/l							
Chlorobenzene	ND	0.50	ug/l							
Chloroethane	ND	0.50	ug/l							
Chloroform	ND	0.50	ug/l							
Chloromethane	ND	0.50	ug/l							
cis-1,2-Dichloroethene	ND	0.50	ug/l							
cis-1,3-Dichloropropene	ND	0.50	ug/l							
Dibromochloromethane	ND	0.50	ug/l							
Dibromomethane	ND	0.50	ug/l							
Dichlorodifluoromethane (Freon 12)	ND	0.50	ug/l							
Di-isopropyl ether	ND	2.0	ug/l							
Ethyl tert-butyl ether	ND	2.0	ug/l							
Ethylbenzene	ND	0.50	ug/l							
Freon 113	ND	5.0	ug/l							
Hexachlorobutadiene	ND	0.50	ug/l							
Isopropylbenzene	ND	0.50	ug/l							
m,p-Xylene	ND	0.50	ug/l							
m-Dichlorobenzene	ND	0.50	ug/l							
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/l							
Methylene chloride	ND	0.50	ug/l							
Naphthalene	ND	0.50	ug/l							
n-Butylbenzene	ND	0.50	ug/l							
n-Propylbenzene	ND	0.50	ug/l							
o-Dichlorobenzene	ND	0.50	ug/l							
o-Xylene	ND	0.50	ug/l							
p-Dichlorobenzene	ND	0.50	ug/l							
p-Isopropyltoluene	ND	0.50	ug/l							
sec-Butylbenzene	ND	0.50	ug/l							
Styrene	ND	0.50	ug/l							



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Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W3L0452 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W3L0452-BLK1)										
Analyzed: 12/10/13 12:17										
Tert-amyl methyl ether	ND	2.0	ug/l							
tert-Butylbenzene	ND	0.50	ug/l							
Tetrachloroethene	ND	0.50	ug/l							
THMs, Total	ND	2.0	ug/l							
Toluene	ND	0.50	ug/l							
trans-1,2-Dichloroethene	ND	0.50	ug/l							
trans-1,3-Dichloropropene	ND	0.50	ug/l							
Trichloroethene	ND	0.50	ug/l							
Trichlorofluoromethane	ND	0.50	ug/l							
Vinyl chloride	ND	0.50	ug/l							
Xylenes, Total	ND	1.0	ug/l							
Surr: 1,2-Dichlorobenzene-d4	8.39		ug/l	10.0		84	70-130			
Surr: 4-Bromofluorobenzene	9.68		ug/l	10.0		97	70-130			
LCS (W3L0452-BS1)										
Analyzed: 12/10/13 10:05										
1,1,1,2-Tetrachloroethane	6.23	0.50	ug/l	6.00		104	70-130			
1,1,1-Trichloroethane	6.56	0.50	ug/l	6.00		109	70-130			
1,1,2,2-Tetrachloroethane	6.20	0.50	ug/l	6.00		103	70-130			
1,1,2-Trichloroethane	6.68	0.50	ug/l	6.00		111	70-130			
1,1-Dichloroethane	6.80	0.50	ug/l	6.00		113	70-130			
1,1-Dichloroethene	6.39	0.50	ug/l	6.00		106	70-130			
1,1-Dichloropropene	7.46	0.50	ug/l	6.00		124	70-130			
1,2,3-Trichlorobenzene	6.04	0.50	ug/l	6.00		101	70-130			
1,2,3-Trichloropropane	7.44	0.50	ug/l	6.00		124	70-130			
1,2,4-Trichlorobenzene	5.86	0.50	ug/l	6.00		98	70-130			
1,2,4-Trimethylbenzene	6.91	0.50	ug/l	6.00		115	70-130			
1,2-Dichloroethane	6.93	0.50	ug/l	6.00		116	70-130			
1,2-Dichloropropane	7.30	0.50	ug/l	6.00		122	70-130			
1,3,5-Trimethylbenzene	6.67	0.50	ug/l	6.00		111	70-130			
1,3-Dichloropropane	7.39	0.50	ug/l	6.00		123	70-130			
2,2-Dichloropropane	5.65	0.50	ug/l	6.00		94	70-130			
2-Butanone	5.54	5.0	ug/l	6.00		92	70-130			
2-Chloroethyl vinyl ether	5.62	1.0	ug/l	6.00		94	70-130			
2-Chlorotoluene	6.80	0.50	ug/l	6.00		113	70-130			
2-Hexanone	5.59	5.0	ug/l	6.00		93	70-130			
4-Chlorotoluene	7.82	0.50	ug/l	6.00		130	70-130			
4-Methyl-2-pentanone	5.48	5.0	ug/l	6.00		91	70-130			
Benzene	6.56	0.50	ug/l	6.00		109	70-130			
Bromobenzene	6.45	0.50	ug/l	6.00		108	70-130			
Bromochloromethane	6.78	0.50	ug/l	6.00		113	70-130			
Bromodichloromethane	6.29	0.50	ug/l	6.00		105	70-130			
Bromoform	6.31	0.50	ug/l	6.00		105	70-130			
Bromomethane	6.81	0.50	ug/l	6.00		114	70-130			
Carbon tetrachloride	6.82	0.50	ug/l	6.00		114	70-130			
Chlorobenzene	6.57	0.50	ug/l	6.00		110	70-130			



California American Water-Monterey
P.O. BOX 951
Monterey CA, 93942-0951

Date Received: 12/09/13 19:49
Date Reported: 01/06/14 12:51

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W3L0452 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Analyzed: 12/10/13 10:05										
LCS (W3L0452-BS1)										
Chloroethane	6.64	0.50	ug/l	6.00		111	70-130			
Chloroform	7.03	0.50	ug/l	6.00		117	70-130			
Chloromethane	6.04	0.50	ug/l	6.00		101	70-130			
cis-1,2-Dichloroethene	6.46	0.50	ug/l	6.00		108	70-130			
cis-1,3-Dichloropropene	5.98	0.50	ug/l	6.00		100	70-130			
Dibromochloromethane	5.78	0.50	ug/l	6.00		96	70-130			
Dibromomethane	6.67	0.50	ug/l	6.00		111	70-130			
Dichlorodifluoromethane (Freon 12)	5.87	0.50	ug/l	6.00		98	70-130			
Di-isopropyl ether	6.23	2.0	ug/l	6.00		104	70-130			
Ethyl tert-butyl ether	5.29	2.0	ug/l	6.00		88	70-130			
Ethylbenzene	6.37	0.50	ug/l	6.00		106	70-130			
Freon 113	7.75	5.0	ug/l	6.00		129	70-130			
Hexachlorobutadiene	6.81	0.50	ug/l	6.00		114	70-130			
Isopropylbenzene	7.24	0.50	ug/l	6.00		121	70-130			
m,p-Xylene	6.41	0.50	ug/l	6.00		107	70-130			
m-Dichlorobenzene	7.35	0.50	ug/l	6.00		122	70-130			
Methyl tert-butyl ether (MTBE)	5.51	2.0	ug/l	6.00		92	70-130			
Methylene chloride	6.84	0.50	ug/l	6.00		114	70-130			
Naphthalene	5.37	0.50	ug/l	6.00		90	70-130			
n-Butylbenzene	6.65	0.50	ug/l	6.00		111	70-130			
n-Propylbenzene	7.50	0.50	ug/l	6.00		125	70-130			
o-Dichlorobenzene	7.33	0.50	ug/l	6.00		122	70-130			
o-Xylene	6.32	0.50	ug/l	6.00		105	70-130			
p-Dichlorobenzene	7.14	0.50	ug/l	6.00		119	70-130			
p-Isopropyltoluene	6.86	0.50	ug/l	6.00		114	70-130			
sec-Butylbenzene	7.67	0.50	ug/l	6.00		128	70-130			
Styrene	6.46	0.50	ug/l	6.00		108	70-130			
Tert-amyl methyl ether	5.37	2.0	ug/l	6.00		90	70-130			
tert-Butylbenzene	7.29	0.50	ug/l	6.00		122	70-130			
Tetrachloroethene	6.99	0.50	ug/l	6.00		116	70-130			
Toluene	6.36	0.50	ug/l	6.00		106	70-130			
trans-1,2-Dichloroethene	6.42	0.50	ug/l	6.00		107	70-130			
trans-1,3-Dichloropropene	5.74	0.50	ug/l	6.00		96	70-130			
Trichloroethene	6.96	0.50	ug/l	6.00		116	70-130			
Trichlorofluoromethane	7.02	0.50	ug/l	6.00		117	70-130			
Vinyl chloride	6.39	0.50	ug/l	6.00		106	70-130			
Surr: 1,2-Dichlorobenzene-d4	11.5		ug/l	10.0		115	70-130			
Surr: 4-Bromofluorobenzene	10.2		ug/l	10.0		102	70-130			
Analyzed: 12/10/13 10:38										
LCS Dup (W3L0452-BSD1)										
1,1,1,2-Tetrachloroethane	6.43	0.50	ug/l	6.00		107	70-130	3	30	
1,1,1-Trichloroethane	6.70	0.50	ug/l	6.00		112	70-130	2	30	
1,1,2,2-Tetrachloroethane	6.72	0.50	ug/l	6.00		112	70-130	8	30	
1,1,2-Trichloroethane	6.93	0.50	ug/l	6.00		116	70-130	4	30	
1,1-Dichloroethane	6.88	0.50	ug/l	6.00		115	70-130	1	30	



California American Water-Monterey
P.O. BOX 951
Monterey CA, 93942-0951

Date Received: 12/09/13 19:49
Date Reported: 01/06/14 12:51

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W3L0452 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W3L0452-BSD1)				Analyzed: 12/10/13 10:38						
1,1-Dichloroethene	6.52	0.50	ug/l	6.00		109	70-130	2	30	
1,1-Dichloropropene	7.51	0.50	ug/l	6.00		125	70-130	0.7	30	
1,2,3-Trichlorobenzene	6.39	0.50	ug/l	6.00		106	70-130	6	30	
1,2,3-Trichloropropane	8.00	0.50	ug/l	6.00		133	70-130	7	30	BS-03
1,2,4-Trichlorobenzene	5.81	0.50	ug/l	6.00		97	70-130	0.9	30	
1,2,4-Trimethylbenzene	6.88	0.50	ug/l	6.00		115	70-130	0.4	30	
1,2-Dichloroethane	7.20	0.50	ug/l	6.00		120	70-130	4	30	
1,2-Dichloropropane	7.45	0.50	ug/l	6.00		124	70-130	2	30	
1,3,5-Trimethylbenzene	6.71	0.50	ug/l	6.00		112	70-130	0.6	30	
1,3-Dichloropropane	7.54	0.50	ug/l	6.00		126	70-130	2	30	
2,2-Dichloropropane	5.82	0.50	ug/l	6.00		97	70-130	3	30	
2-Butanone	5.75	5.0	ug/l	6.00		96	70-130	4	30	
2-Chloroethyl vinyl ether	5.80	1.0	ug/l	6.00		97	70-130	3	30	
2-Chlorotoluene	7.06	0.50	ug/l	6.00		118	70-130	4	30	
2-Hexanone	6.17	5.0	ug/l	6.00		103	70-130	10	30	
4-Chlorotoluene	7.89	0.50	ug/l	6.00		132	70-130	0.9	30	BS-03
4-Methyl-2-pentanone	5.77	5.0	ug/l	6.00		96	70-130	5	30	
Benzene	6.62	0.50	ug/l	6.00		110	70-130	0.9	30	
Bromobenzene	6.64	0.50	ug/l	6.00		111	70-130	3	30	
Bromochloromethane	6.96	0.50	ug/l	6.00		116	70-130	3	30	
Bromodichloromethane	6.56	0.50	ug/l	6.00		109	70-130	4	30	
Bromoform	6.76	0.50	ug/l	6.00		113	70-130	7	30	
Bromomethane	6.64	0.50	ug/l	6.00		111	70-130	3	30	
Carbon tetrachloride	6.95	0.50	ug/l	6.00		116	70-130	2	30	
Chlorobenzene	6.68	0.50	ug/l	6.00		111	70-130	2	30	
Chloroethane	6.65	0.50	ug/l	6.00		111	70-130	0.2	30	
Chloroform	7.13	0.50	ug/l	6.00		119	70-130	1	30	
Chloromethane	5.85	0.50	ug/l	6.00		98	70-130	3	30	
cis-1,2-Dichloroethene	6.56	0.50	ug/l	6.00		109	70-130	2	30	
cis-1,3-Dichloropropene	6.20	0.50	ug/l	6.00		103	70-130	4	30	
Dibromochloromethane	6.13	0.50	ug/l	6.00		102	70-130	6	30	
Dibromomethane	6.96	0.50	ug/l	6.00		116	70-130	4	30	
Dichlorodifluoromethane (Freon 12)	6.01	0.50	ug/l	6.00		100	70-130	2	30	
Di-isopropyl ether	6.57	2.0	ug/l	6.00		110	70-130	5	30	
Ethyl tert-butyl ether	5.47	2.0	ug/l	6.00		91	70-130	3	30	
Ethylbenzene	6.39	0.50	ug/l	6.00		106	70-130	0.3	30	
Freon 113	7.72	5.0	ug/l	6.00		129	70-130	0.4	30	
Hexachlorobutadiene	6.66	0.50	ug/l	6.00		111	70-130	2	30	
Isopropylbenzene	7.28	0.50	ug/l	6.00		121	70-130	0.6	30	
m,p-Xylene	6.45	0.50	ug/l	6.00		108	70-130	0.6	30	
m-Dichlorobenzene	7.35	0.50	ug/l	6.00		122	70-130	NR	30	
Methyl tert-butyl ether (MTBE)	5.85	2.0	ug/l	6.00		98	70-130	6	30	
Methylene chloride	6.98	0.50	ug/l	6.00		116	70-130	2	30	
Naphthalene	5.58	0.50	ug/l	6.00		93	70-130	4	30	



California American Water-Monterey
P.O.BOX 951
Monterey CA, 93942-0951

Date Received: 12/09/13 19:49
Date Reported: 01/06/14 12:51

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Batch W3L0452 - EPA 524.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W3L0452-BSD1)				Analyzed: 12/10/13 10:38						
n-Butylbenzene	6.50	0.50	ug/l	6.00		108	70-130	2	30	
n-Propylbenzene	7.65	0.50	ug/l	6.00		128	70-130	2	30	
o-Dichlorobenzene	7.43	0.50	ug/l	6.00		124	70-130	1	30	
o-Xylene	6.45	0.50	ug/l	6.00		108	70-130	2	30	
p-Dichlorobenzene	7.11	0.50	ug/l	6.00		118	70-130	0.4	30	
p-Isopropyltoluene	6.82	0.50	ug/l	6.00		114	70-130	0.6	30	
sec-Butylbenzene	7.68	0.50	ug/l	6.00		128	70-130	0.1	30	
Styrene	6.59	0.50	ug/l	6.00		110	70-130	2	30	
Tert-amyl methyl ether	5.60	2.0	ug/l	6.00		93	70-130	4	30	
tert-Butylbenzene	7.49	0.50	ug/l	6.00		125	70-130	3	30	
Tetrachloroethene	7.09	0.50	ug/l	6.00		118	70-130	1	30	
Toluene	6.43	0.50	ug/l	6.00		107	70-130	1	30	
trans-1,2-Dichloroethene	6.64	0.50	ug/l	6.00		111	70-130	3	30	
trans-1,3-Dichloropropene	6.03	0.50	ug/l	6.00		100	70-130	5	30	
Trichloroethene	7.00	0.50	ug/l	6.00		117	70-130	0.6	30	
Trichlorofluoromethane	7.14	0.50	ug/l	6.00		119	70-130	2	30	
Vinyl chloride	6.54	0.50	ug/l	6.00		109	70-130	2	30	
Surr: 1,2-Dichlorobenzene-d4	11.4		ug/l	10.0		114	70-130			
Surr: 4-Bromofluorobenzene	10.4		ug/l	10.0		104	70-130			



California American Water-Monterey
P.O.BOX 951
Monterey CA, 93942-0951

Date Received: 12/09/13 19:49
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Notes and Definitions

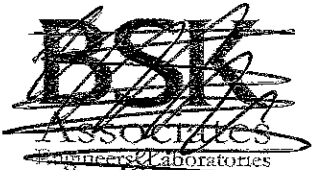
- S-11** Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
- QC-2** This QC sample was reanalyzed to complement samples that require re-analysis on different date. See analysis date.
- Q-08** High bias in the QC sample does not affect sample result since analyte was not detected or below the reporting limit.
- MS-05** The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
- MS-02** The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
- M-05** Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
- M-04** Due to the nature of matrix interferences, sample extract was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
- BS-03** The recovery of this analyte in the BS/LCS was outside the control limits. The sample result was accepted based on another acceptable BS/LCS and/or MS and MSD that meet BS criteria.
- B-07** This analyte was found in the method blank at levels above the MDL but below the reporting limit.
- A-01** Analysis subcontracted to Pace Analytical, NELAP Certified 04222CA
- **** The recommended holding time for field filtering is only 15 minutes. The sample was filtered as soon as possible but it was filtered past holding time. However, the sample was analyzed within holding time.
- *** The recommended holding time for this analysis is only 15 minutes. The sample was analyzed as soon as it was possible but it was received and analyzed past holding time.
- ND** NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
- NR** Not Reportable
- Dil** Dilution
- dry** Sample results reported on a dry weight basis
- RPD** Relative Percent Difference
- % Rec** Percent Recovery
- Sub** Subcontracted analysis, original report available upon request
- MDL** Method Detection Limit
- MDA** Minimum Detectable Activity
- MRL** Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.



Stanislaus St. Fresno CA 93706
 (559) 497-7700 Fax: (559) 497-8803
 www.bskassociates.com

Week Laboratories Inc.
 14859 East Clark Avenue
 City of Industry, CA 91745
 Week Project Manager: Marilyn Romero

3L09093

Appendix G

ANALYTICAL CHAIN OF CUSTODY

Company/Client Name*: California American Water		Report Attention*: Travis Peterson Additional cc's: Sarp Sekeroglu, RBF Consulting		Invoice To*: Accounts Payable PO#:		Phone*: (831) 646-3295/(831) 646-3269		Fax*: (831) 333-1343		E-mail*: susan.jacobson@amwater.com, travis.peterson@amwater.com														
Address*: PO Box 951		City*: Monterey		State*: CA		Zip*: 93942-0951		Regulatory Carbon Copies CDPH <input type="checkbox"/> Fresno Co Merced Co <input type="checkbox"/> Tulare Co Madera Co <input type="checkbox"/> Other: _____		Alkalinity, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC Mass Balance-Dissolved: Cations and Anions Dissolved Metals: Ba, B, Ca, Fe, Mg, Mn, K, Na, Sr, silica Total Metals: Al, As, Cu, Fe, Mn, Zn Dissolved: Bromide, Chloride, Nitrite, Fluoride, Sulfate, Orthophosphate-P Dissolved: Ammonia, TKN, Phosphorus Nitrate+Nitrite as N, Nitrate-NO3 EPA 524, 504, 505, 515, 525, 531, 547, 548, 549 EXT-Tritium, EXT-Lithium, EXT- Dissolved Iodide, EXT-Dioxin														
Project: Water Quality Analysis - MPWSP		Project #:		Regulatory Compliance <input type="checkbox"/> EDT to California DPH		Reporting Options: <input type="checkbox"/> Trace (J-Flag) <input type="checkbox"/> Swamp <input type="checkbox"/> EDD Type: _____		How would you like your completed results sent*? <input checked="" type="checkbox"/> E-Mail <input type="checkbox"/> Fax <input type="checkbox"/> Mail				<input type="checkbox"/> EDT to California DPH												
Sampler Name (Printed/Signature): Nathan Reynolds / <i>Nathan Reynolds</i>		TAT* <input checked="" type="checkbox"/> Standard - 10 Business Days <input type="checkbox"/> **Rush: Date Needed		**Surcharge		System Number*: _____		<input type="checkbox"/> Geotracker #:																
Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid																								
#	Sample Description*	Sampled*		Matrix*	Comments / Station Code / WTRAX	Alkalinity	Hardness	MBAS	Color	Odor	TDS	pH	Turbidity	EC	Mass Balance-Dissolved	Cations and Anions	Dissolved Metals: Ba, B, Ca, Fe, Mg, Mn, K, Na, Sr, silica	Total Metals: Al, As, Cu, Fe, Mn, Zn	Dissolved: Bromide, Chloride, Nitrite, Fluoride, Sulfate, Orthophosphate-P	Dissolved: Ammonia, TKN, Phosphorus	Nitrate+Nitrite as N, Nitrate-NO3	EPA 524, 504, 505, 515, 525, 531, 547, 548, 549	EXT-Tritium, EXT-Lithium, EXT-Dissolved Iodide, EXT-Dioxin	
		Date	Time																					
30	ML-4 Zone #2 (74.5 - 84.5 Alys)	12-6-13	12-25	water	Seawater salinity levels. Lab to filter dissolved metals. Lab to filter Diss. Ammonia, TKN, P Okay to analyze out of hold time. Please run dissolved and Total Mass Balance. Field Parameters: Temp = 17.7 °C pH = 6.57 Sp Cond = 12,933 µS/cm Turb = 0.94 NTU	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Relinquished by: (Signature and Printed Name) <i>Nathan Reynolds</i> Nathan Reynolds		Company GEO SCIENCE		Date	Time	Received by: (Signature and Printed Name) <i>ov</i> 12-7-13 8:30 3:40		Company																
Relinquished by: (Signature and Printed Name)		Company		Date	Time	Received by: (Signature and Printed Name)		Company																
Received for Lab by: (Signature and Printed Name)				Date	Time	Payment Received at Delivery:		Check / Cash																
				Date:	Time:	Amount:		PIA#:																
Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Courier: _____		Cooling Method: Wet Blue None		Custody Seal: Y / N		Chilling Process Begun: Y / N																		

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf

Date Needed: 12/5/2013

Client: RBF Consulting

Attention: Sarp Sekeroglu

Address: 3180 Imjin Rd Suite 110

City: Marina State, Zip: CA, 93933

Email: ssekeroglu@rbf.com

Phone: (858) 401-3988 Requested By: MSN

Fax: Date Requested: 12/4/2013

Prepared By: FQ

Date Shipped: 12-4-13

Special Instructions:

Ship Via
ONTRAC

Shipping Details
Box with Ice Chest
Blue Ice
ONTRAC Return Label
COC - Prepared

Tests	Description	Preservative	Sets	Lot Number
Metals: Inorganic / Gen Min.	500mL Plastic red lid / label	HNO3	2	
Chlorite, Bromate, Bromide, Chlorate	250mL AG brown label	EDA	1	
Odor: General Physical	500mL AG	None	1	
Non-Metals: Alk, F, Res. Cl, pH, CO2, Solids, SO4	500mL Plastic white lid / label	None	1	
Gen Mineral/Inorganic; BOD, Pb&Cu, TDS, TSS	1L Plastic white lid / label	None	2	
Ammonia, TKN, Phosphorus Nitrate + Nitrite N	250mL Plastic yellow lid / label	H2SO4	1	
EPA 524.2 & 1,2,3-TCP - Raw Water	3 X 40mL VOAs	HCl	1	
EPA 504 / 505	3 X 40mL VOAs	Na2S2O3	2	
EPA 515	250mL AG blue label	Na2S2O3	1	
EPA 525	2 X 1L AG blue label	Na2S2O3	1	
EPA 531.1	1 x 40mL VOA orange label	MCAA + Na2S2O3	1	
EPA 547-Glyphosate	1 x 40mL VOA blue label	Na2S2O3	1	
EPA 548-Endothall	250mL AG blue label	Na2S2O3	1	
EPA 549-Diquat	1L Plastic (Brown)	Na2S2O3	1	
Dioxin	2 X 1L AG	-	1	
Iodide	250 mL Plastic	None	1	
Tritium	250 mL AG	None	1	

December 23, 2013

Mr. Hai Van Nguyen
Weck Laboratories, Inc.
14859 East Clark Avenue
Hacienda Heights, CA 917451396

RE: Project: 3L09093
Pace Project No.: 30109445

Dear Mr. Nguyen:

Enclosed are the analytical results for sample(s) received by the laboratory on December 11, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins

jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: 3L09093

Pace Project No.: 30109445

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 3L09093
Pace Project No.: 30109445

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30109445001	3L09093-01	Water	12/06/13 12:25	12/11/13 11:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 3L09093
Pace Project No.: 30109445

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30109445001	3L09093-01	EPA 906.0	SLA	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 3L09093
Pace Project No.: 30109445

Sample: 3L09093-01		Lab ID: 30109445001	Collected: 12/06/13 12:25	Received: 12/11/13 11:00	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Tritium	EPA 906.0	-110 ± 130 (240)	pCi/L	12/19/13 15:48	10028-17-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 3L09093
Pace Project No.: 30109445

QC Batch: RADC/18077	Analysis Method: EPA 906.0
QC Batch Method: EPA 906.0	Analysis Description: 906.0 Tritium
Associated Lab Samples: 30109445001	

METHOD BLANK: 670612	Matrix: Water
Associated Lab Samples: 30109445001	

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Tritium	4.89 ± 127 (224)	pCi/L	12/18/13 22:27	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 3L09093
Pace Project No.: 30109445

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER

Subcontract Laboratory:
Pace Analytical Services - Greenburg PA
1638 Roseytown Road Ste 2,3,4
Greensburg, PA 15601
Phone :(724) 850-5600
Fax: (724) 722-5208

Turn Around Time: Normal

Project Manager: Hai Van Nguyen

Name of Sampler: _____

Sampler Employed by: _____

30109445

Sample ID: 3L09093-01 **Sample ID:** ML-4 Zone # 2 (74.5-84.5 ftbgs) **Matrix:** Water **Date Sampled:** 12/06/13 **Time Sampled:** 12:25

Analysis	Expires	Comments
Tritium-SUB Containers Supplied: 125 mL Amber Glass (AF)	06/04/14 12:25	

Remarks / Special Comments:

Sample Condition:
Temperature: 0.0
Preserved: Yes / No
Evidence Seal Intact: Yes / No
Container Attacked: Yes / No
Preserved at Lab: Yes / No

Relinquished By: Quang Tran Date / Time: 12/6/13 12:20 Received By: Fedex Date / Time: _____
Relinquished by: _____ Date / Time: _____ Received By: [Signature] Date / Time: 12-13 1100



Sample Condition Upon Receipt

Client Name: Wack Laboratories Project # 30109445

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7473 6334 4618

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used (5) 6 7 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0-0
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: <u>mjk 12-11-13</u>

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>wt</u>		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed <u>mjk</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: *Jacob...* Date: 12/12/13



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Travis Peterson
California American Water
836 Carmel Ave.
Monterey, CA 93940

RE: Report for A3K1920 Water Quality Analysis

Dear Travis Peterson,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 11/26/2013. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAP Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Michael Ng, Project Manager

If additional clarification of any information is required, please contact your Project Manager, Michael Ng, at (800) 877-8310 or (559) 497-2888 x118.



Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: California American Water
Report To: Travis Peterson
Project #: Water Quality Analysis
Received: 11/26/2013 - 10:30
Report Due: 12/12/2013

Invoice To: California American Water
Invoice Attn: Accounts Payable
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 2.2	COC/Labels Agree
	Received On Wet Ice
	Packing Material - Bubble Wrap
	Sample(s) were received in temperature range.
	Initial receipt at BSK-SAC

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- BS3.0 BS/BSD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
- BS4.0 BS/BSD RPD exceeded the method acceptance limit as one of the blank spikes recovered outside limits.
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- DL1.0 Sample required a dilution due to the matrix or high concentration of a non-target analyte.
- HT1.0 Holding time exceeded. Sample was received at the lab past holding time.
- HT1.6 Holding time exceeded. The holding time for this analysis is a recommendation and is not mandated by any state or federal agency.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- X.0 BS/BSD RPD is outside of acceptance limits

Report Distribution

Recipient(s)	Report Format
Travis Peterson	Final.rpt
Sarp Sekeroglu	Final.rpt

Certificate of Analysis

Sample ID: A3K1920-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-6 Zone #1 (152-162 ft bgs)

Sample Date - Time: 11/22/13 - 13:35
Matrix: Water
Sample Type: Grab

Field Data: pH=6.63 Temp=16.5 °C Turb. =1.26 ntu

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Alkalinity as CaCO3	SM 2320 B	560	30	mg/L	10	A314185	11/27/13	11/27/13	
Bicarbonate as CaCO3	SM 2320 B	560	30	mg/L	10	A314185	11/27/13	11/27/13	
Carbonate as CaCO3	SM 2320 B	ND	30	mg/L	10	A314185	11/27/13	11/27/13	
Hydroxide as CaCO3	SM 2320 B	ND	30	mg/L	10	A314185	11/27/13	11/27/13	
Ammonia as N	SM 4500-NH3 G	6.8	0.10	mg/L	1	A314346	12/04/13	12/09/13	
Bromide	EPA 300.1	68	1.2	mg/L	250	A314117	11/26/13	11/26/13	
Surrogate: Dichloroacetate	EPA 300.1	106 %	<i>Acceptable range: 90-115 %</i>						
Chloride	EPA 300.0	19000	200	mg/L	200	A314172	11/27/13	11/27/13	
Color, Apparent	SM 2120 B	20	1.0	CU	1	A314113	11/26/13 19:02	11/26/13	HT1.0
Conductivity @ 25C	SM 2510 B	43000	1.0	umhos/cm	1	A314132	11/26/13	11/26/13	
Fluoride	EPA 300.0	ND	2.0	mg/L	20	A314220	11/27/13	11/27/13	DL1.0
Mass Balance-Anions		590		meq/L					
Mass Balance-Dissolved Cations		550		meq/L					
MBAS, Calculated as LAS, mol wt 340	SM 5540 C	ND	0.10	mg/L	2	A314153	11/27/13 15:20	11/27/13	DL1.0, HT1.0
Nitrate as NO3	EPA 300.0	ND	200	mg/L	200	A314172	11/27/13 15:52	11/27/13	DL1.0, HT1.0
Nitrite as N	EPA 300.0	ND	10	mg/L	200	A314172	11/27/13 15:52	11/27/13	DL1.0, HT1.0
Threshold Odor	SM 2150 B	ND	1.0	T.O.N.	1	A314113	11/26/13 19:02	11/26/13	HT1.6
Orthophosphate as P	SM 4500-P E	0.14	0.010	mg/L	1	A314203	11/27/13 18:38	11/27/13	HT1.0
pH (1)	SM 4500-H+ B	7.4		pH Units	1	A314132	11/26/13	11/26/13	
pH Temperature in °C		21.4							
Phosphorus - Dissolved (1)	EPA 365.4	ND	0.10	mg/L	1	A314666	12/11/13	12/12/13	
Sulfate as SO4	EPA 300.0	2000	400	mg/L	200	A314172	11/27/13	11/27/13	
Total Dissolved Solids	SM 2540C	34000	5.0	mg/L	1	A314178	11/27/13	12/02/13	
Total Kjeldahl Nitrogen - Dissolved (1)	EPA 351.2	7.3	1.0	mg/L	1	A314282	12/03/13	12/05/13	
Total Oxidizable Nitrogen, as N - Dissolved (1)	SM 4500-NO3 F	ND	0.10	mg/L	1	A314432	12/05/13	12/05/13	
Turbidity	SM 2130 B	6.5	0.10	NTU	1	A314113	11/26/13 19:02	11/26/13	HT1.0

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.7	0.052	0.050	mg/L	1	A314146	11/26/13	12/04/13	
Arsenic	EPA 200.8	4.5	4.0	ug/L	2	A314146	11/26/13	12/02/13	
Barium - Dissolved (1)	EPA 200.7	ND	0.050	mg/L	1	A314514	12/06/13	12/10/13	
Boron - Dissolved (1)	EPA 200.7	4.0	0.10	mg/L	1	A314514	12/06/13	12/10/13	
Calcium	EPA 200.7	550	0.10	mg/L	1	A314146	11/26/13	12/04/13	
Calcium - Dissolved (1)	EPA 200.7	570	0.10	mg/L	1	A314514	12/06/13	12/10/13	
Copper	EPA 200.8	58	10	ug/L	2	A314146	11/26/13	12/02/13	
Hardness as CaCO3	SM 2340B	6400	0.41	mg/L					
Iron	EPA 200.7	3.9	0.030	mg/L	1	A314146	11/26/13	12/04/13	

Certificate of Analysis

Sample ID: A3K1920-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-6 Zone #1 (152-162 ft bgs)

Sample Date - Time: 11/22/13 - 13:35
Matrix: Water
Sample Type: Grab

Field Data: pH=6.63 Temp=16.5 °C Turb. =1.26 ntu

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Iron - Dissolved (1)	EPA 200.7	ND	0.030	mg/L	1	A314514	12/06/13	12/10/13	
Magnesium	EPA 200.7	1200	0.10	mg/L	1	A314146	11/26/13	12/04/13	
Magnesium - Dissolved (1)	EPA 200.7	1200	0.10	mg/L	1	A314514	12/06/13	12/10/13	
Manganese	EPA 200.7	3.8	0.010	mg/L	1	A314146	11/26/13	12/04/13	
Manganese - Dissolved (1)	EPA 200.7	3.9	0.010	mg/L	1	A314514	12/06/13	12/10/13	
Potassium - Dissolved (1)	EPA 200.7	250	2.0	mg/L	1	A314514	12/06/13	12/10/13	
Silica (SiO2) - Dissolved (1)	EPA 200.7	32	0.20	mg/L	1	A314514	12/06/13	12/10/13	
Sodium - Dissolved (1)	EPA 200.7	9400	20	mg/L	20	A314514	12/06/13	12/10/13	
Strontium - Dissolved (1)	EPA 200.8	12000	10	ug/L	10	A314514	12/06/13	12/10/13	
Zinc	EPA 200.7	ND	0.050	mg/L	1	A314146	11/26/13	12/04/13	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A314194	11/27/13	11/28/13	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A314194	11/27/13	11/28/13	
Surrogate: TCMX	EPA 504.1	103 %	Acceptable range: 70-130 %						
<u>Organohalide Pesticides and PCBs by GC-ECD</u>									
Aldrin	EPA 505	ND	0.075	ug/L	1	A314194	11/27/13	11/28/13	
Chlordane	EPA 505	ND	0.10	ug/L	1	A314194	11/27/13	11/28/13	
Chlorothalonil	EPA 505	ND	5.0	ug/L	1	A314194	11/27/13	11/28/13	
Dieldrin	EPA 505	ND	0.020	ug/L	1	A314194	11/27/13	11/28/13	
Endrin	EPA 505	ND	0.10	ug/L	1	A314194	11/27/13	11/28/13	
Heptachlor	EPA 505	ND	0.010	ug/L	1	A314194	11/27/13	11/28/13	
Heptachlor Epoxide	EPA 505	ND	0.010	ug/L	1	A314194	11/27/13	11/28/13	
Hexachlorobenzene	EPA 505	ND	0.50	ug/L	1	A314194	11/27/13	11/28/13	
Hexachlorocyclopentadiene	EPA 505	ND	1.0	ug/L	1	A314194	11/27/13	11/28/13	
Lindane	EPA 505	ND	0.20	ug/L	1	A314194	11/27/13	11/28/13	
Methoxychlor	EPA 505	ND	10	ug/L	1	A314194	11/27/13	11/28/13	
PCB Aroclor Screen	EPA 505	ND	0.50	ug/L	1	A314194	11/27/13	11/28/13	
Toxaphene	EPA 505	ND	1.0	ug/L	1	A314194	11/27/13	11/28/13	
Trifluralin	EPA 505	ND	1.0	ug/L	1	A314194	11/27/13	11/28/13	
Surrogate: TCMX	EPA 505	103 %	Acceptable range: 70-130 %						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A314421	12/05/13	12/08/13	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A314421	12/05/13	12/08/13	
2,4-D	EPA 515.3	ND	10	ug/L	1	A314421	12/05/13	12/08/13	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A314421	12/05/13	12/08/13	
Dalapon	EPA 515.3	ND	10	ug/L	1	A314421	12/05/13	12/08/13	

Certificate of Analysis

Sample ID: A3K1920-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-6 Zone #1 (152-162 ft bgs)

Sample Date - Time: 11/22/13 - 13:35
Matrix: Water
Sample Type: Grab

Field Data: pH=6.63 Temp=16.5 °C Turb. =1.26 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chlorinated Acid Herbicides by GC-ECD									
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A314421	12/05/13	12/08/13	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A314421	12/05/13	12/08/13	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A314421	12/05/13	12/08/13	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A314421	12/05/13	12/08/13	
Surrogate: DCPAA	EPA 515.3	80 %	Acceptable range: 70-130 %						
Volatile Organics by GC-MS									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A314277	12/03/13	12/04/13	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A314277	12/03/13	12/04/13	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A314277	12/03/13	12/04/13	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A314277	12/03/13	12/04/13	
Acetone	EPA 524.2	ND	10	ug/L	1	A314277	12/03/13	12/04/13	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	

Certificate of Analysis

Sample ID: A3K1920-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-6 Zone #1 (152-162 ft bgs)

Sample Date - Time: 11/22/13 - 13:35
Matrix: Water
Sample Type: Grab

Field Data: pH=6.63 Temp=16.5 °C Turb. =1.26 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A314277	12/03/13	12/04/13	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A314277	12/03/13	12/04/13	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A314277	12/03/13	12/04/13	BS1.0, CV0.0
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A314277	12/03/13	12/04/13	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	93 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	104 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A314276	12/03/13	12/04/13	

Certificate of Analysis

Sample ID: A3K1920-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-6 Zone #1 (152-162 ft bgs)

Sample Date - Time: 11/22/13 - 13:35

Matrix: Water

Sample Type: Grab

Field Data: pH=6.63 Temp=16.5 °C Turb.=1.26 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Semi-Volatile Organics by GC-MS</u>									
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A314276	12/03/13	12/04/13	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A314276	12/03/13	12/04/13	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A314276	12/03/13	12/04/13	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A314276	12/03/13	12/04/13	
Bromacil	EPA 525.2	ND	10	ug/L	1	A314276	12/03/13	12/04/13	
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A314276	12/03/13	12/04/13	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A314276	12/03/13	12/04/13	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A314276	12/03/13	12/04/13	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A314276	12/03/13	12/04/13	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A314276	12/03/13	12/04/13	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A314276	12/03/13	12/04/13	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A314276	12/03/13	12/04/13	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A314276	12/03/13	12/04/13	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A314276	12/03/13	12/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	100 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A314122	11/26/13	11/26/13	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A314122	11/26/13	11/26/13	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A314122	11/26/13	11/26/13	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A314122	11/26/13	11/26/13	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A314122	11/26/13	11/26/13	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A314122	11/26/13	11/26/13	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A314122	11/26/13	11/26/13	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A314122	11/26/13	11/26/13	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A314204	12/01/13	12/01/13	
Surrogate: AMPA	EPA 547	104 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A314043	11/27/13	11/29/13	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A314169	11/27/13	12/03/13	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A314172

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: EMH

Blank (A314172-BLK1)

Chloride	ND	1.0	mg/L							11/27/13	
Nitrate as NO3	ND	1.0	mg/L							11/27/13	
Nitrite as N	ND	0.050	mg/L							11/27/13	
Sulfate as SO4	ND	2.0	mg/L							11/27/13	

Blank Spike (A314172-BS1)

Chloride	50	1.0	mg/L	50		99	90-110			11/27/13	
Nitrate as NO3	50	1.0	mg/L	50		99	90-110			11/27/13	
Nitrite as N	0.51	0.050	mg/L	0.50		102	90-110			11/27/13	
Sulfate as SO4	50	2.0	mg/L	50		99	90-110			11/27/13	

Blank Spike Dup (A314172-BSD1)

Chloride	48	1.0	mg/L	50		97	90-110	3	20	11/27/13	
Nitrate as NO3	48	1.0	mg/L	50		97	90-110	2	20	11/27/13	
Nitrite as N	0.50	0.050	mg/L	0.50		100	90-110	2	20	11/27/13	
Sulfate as SO4	48	2.0	mg/L	50		97	90-110	2	20	11/27/13	

Matrix Spike (A314172-MS1), Source: A3K1922-04

Chloride	120	2.0	mg/L	100	20	99	80-120			11/27/13	
Nitrate as NO3	100	2.0	mg/L	100	4.8	99	80-120			11/27/13	
Nitrite as N	1.0	0.10	mg/L	1.0		101	80-120			11/27/13	
Sulfate as SO4	100	4.0	mg/L	100	ND	98	80-120			11/27/13	

Matrix Spike (A314172-MS2), Source: A3K1953-01

Chloride	110	2.0	mg/L	100	8.7	100	80-120			11/27/13	
Nitrate as NO3	110	2.0	mg/L	100	11	101	80-120			11/27/13	
Nitrite as N	0.98	0.10	mg/L	1.0	ND	98	80-120			11/27/13	
Sulfate as SO4	110	4.0	mg/L	100	11	101	80-120			11/27/13	

Matrix Spike Dup (A314172-MSD1), Source: A3K1922-04

Chloride	120	2.0	mg/L	100	20	100	80-120	1	20	11/27/13	
Nitrate as NO3	100	2.0	mg/L	100	4.8	99	80-120	0	20	11/27/13	
Nitrite as N	1.0	0.10	mg/L	1.0		100	80-120	1	20	11/27/13	
Sulfate as SO4	100	4.0	mg/L	100	ND	97	80-120	1	20	11/27/13	

Matrix Spike Dup (A314172-MSD2), Source: A3K1953-01

Chloride	110	2.0	mg/L	100	8.7	98	80-120	2	20	11/27/13	
Nitrate as NO3	110	2.0	mg/L	100	11	100	80-120	1	20	11/27/13	
Nitrite as N	0.97	0.10	mg/L	1.0	ND	97	80-120	1	20	11/27/13	
Sulfate as SO4	110	4.0	mg/L	100	11	98	80-120	2	20	11/27/13	

EPA 300.0 - Quality Control

Batch: A314220

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314220-BLK1)

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A314220

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314220-BLK1)

Fluoride	ND	0.10	mg/L							11/27/13	
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Blank Spike (A314220-BS1)

Fluoride	0.50	0.10	mg/L	0.50		99	90-110			11/27/13	
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Blank Spike Dup (A314220-BSD1)

Fluoride	0.49	0.10	mg/L	0.50		99	90-110	1	10	11/27/13	
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Matrix Spike (A314220-MS1), Source: A3K1732-04

Fluoride	0.98	0.20	mg/L	1.0	ND	88	80-120			11/27/13	
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Matrix Spike (A314220-MS2), Source: A3K1891-02

Fluoride	1.3	0.20	mg/L	1.0	0.30	99	80-120			11/27/13	
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Matrix Spike Dup (A314220-MSD1), Source: A3K1732-04

Fluoride	0.99	0.20	mg/L	1.0	ND	89	80-120	1	10	11/27/13	
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Matrix Spike Dup (A314220-MSD2), Source: A3K1891-02

Fluoride	1.3	0.20	mg/L	1.0	0.30	100	80-120	1	10	11/27/13	
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EPA 300.1 - Quality Control

Batch: A314117

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314117-BLK1)

Bromide	ND	0.0050	mg/L							11/26/13	
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Surrogate: Dichloroacetate	0.451			0.50		90	90-115			11/26/13	
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Blank Spike (A314117-BS1)

Bromide	0.18	0.0050	mg/L	0.20		92	85-115			11/26/13	
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Surrogate: Dichloroacetate	0.465			0.50		93	90-115			11/26/13	
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Blank Spike Dup (A314117-BSD1)

Bromide	0.18	0.0050	mg/L	0.20		92	85-115	1	10	11/26/13	
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Surrogate: Dichloroacetate	0.476			0.50		95	90-115			11/26/13	
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Matrix Spike (A314117-MS1), Source: A3K1815-03

Bromide	1.1	0.050	mg/L	1.0	0.14	95	75-125			11/26/13	
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Surrogate: Dichloroacetate	5.02			5.0		100	90-115			11/26/13	
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Matrix Spike Dup (A314117-MSD1), Source: A3K1815-03

Bromide	1.1	0.050	mg/L	1.0	0.14	94	75-125	1	10	11/26/13	
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Surrogate: Dichloroacetate	5.30			5.0		106	90-115			11/26/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 351.2 - Quality Control

Batch: A314282

Prepared: 12/3/2013

Prep Method: Digestion

Analyst: KKC

Blank (A314282-BLK1)

Total Kjeldahl Nitrogen - Dissolved (1) ND 1.0 mg/L 12/05/13

Blank Spike (A314282-BS1)

Total Kjeldahl Nitrogen - Dissolved (1) 11 1.0 mg/L 10 106 90-110 12/05/13

Blank Spike Dup (A314282-BSD1)

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 102 90-110 4 10 12/05/13

Matrix Spike (A314282-MS1), Source: A3K2014-02

Total Kjeldahl Nitrogen - Dissolved (1) 11 1.0 mg/L 10 ND 109 90-110 12/05/13

Matrix Spike Dup (A314282-MSD1), Source: A3K2014-02

Total Kjeldahl Nitrogen - Dissolved (1) 11 1.0 mg/L 10 ND 106 90-110 3 10 12/05/13

EPA 365.4 - Quality Control

Batch: A314666

Prepared: 12/11/2013

Prep Method: Digestion

Analyst: KKC

Blank (A314666-BLK1)

Phosphorus - Dissolved (1) ND 0.10 mg/L 12/12/13

Blank Spike (A314666-BS1)

Phosphorus - Dissolved (1) 10 0.10 mg/L 10 101 90-110 12/12/13

Blank Spike Dup (A314666-BSD1)

Phosphorus - Dissolved (1) 10 0.10 mg/L 10 103 90-110 2 10 12/12/13

Matrix Spike (A314666-MS1), Source: A3L0659-05

Phosphorus - Dissolved (1) 9.7 0.10 mg/L 10 ND 97 90-110 12/12/13

Matrix Spike Dup (A314666-MSD1), Source: A3L0659-05

Phosphorus - Dissolved (1) 9.4 0.10 mg/L 10 ND 94 90-110 3 10 12/12/13

SM 2120 B - Quality Control

Batch: A314113

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314113-BLK1)

Color, Apparent ND 1.0 CU 11/26/13

Duplicate (A314113-DUP1), Source: A3K1910-01

Color, Apparent 10 1.0 CU 10 0 20 11/26/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2130 B - Quality Control

Batch: A314113

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314113-BLK1)

Turbidity	ND	0.10	NTU							11/26/13	
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Duplicate (A314113-DUP1), Source: A3K1910-01

Turbidity	1.6	0.10	NTU		1.6			4	20	11/26/13	
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SM 2150 B - Quality Control

Batch: A314113

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314113-BLK1)

Threshold Odor	ND	1.0	T.O.N.							11/26/13	
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Duplicate (A314113-DUP1), Source: A3K1910-01

Threshold Odor	ND	1.0	T.O.N.		ND				20	11/26/13	
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SM 2320 B - Quality Control

Batch: A314185

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314185-BLK1)

Alkalinity as CaCO3	ND	3.0	mg/L							11/27/13	
Bicarbonate as CaCO3	ND	3.0	mg/L							11/27/13	
Carbonate as CaCO3	ND	3.0	mg/L							11/27/13	
Hydroxide as CaCO3	ND	3.0	mg/L							11/27/13	

Blank Spike (A314185-BS1)

Alkalinity as CaCO3	100	3.0	mg/L	100		102	80-120			11/27/13	
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Blank Spike Dup (A314185-BSD1)

Alkalinity as CaCO3	96	3.0	mg/L	100		96	80-120	6	20	11/27/13	
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Duplicate (A314185-DUP1), Source: A3K1958-01

Alkalinity as CaCO3	340	3.0	mg/L		340			0	10	11/27/13	
Bicarbonate as CaCO3	320	3.0	mg/L		320			0	10	11/27/13	
Carbonate as CaCO3	17	3.0	mg/L		18			6	10	11/27/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	11/27/13	

Duplicate (A314185-DUP2), Source: A3K1962-02

Alkalinity as CaCO3	260	3.0	mg/L		250			5	10	11/27/13	
Bicarbonate as CaCO3	260	3.0	mg/L		250			5	10	11/27/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	11/27/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	11/27/13	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2510 B - Quality Control

Batch: A314132

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314132-BLK1)

Conductivity @ 25C	ND	1.0	umhos/cm							11/26/13	
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Duplicate (A314132-DUP1), Source: A3K1885-01

Conductivity @ 25C	1400	1.0	umhos/cm		1400			0	20	11/26/13	
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Duplicate (A314132-DUP2), Source: A3K1922-06

Conductivity @ 25C	210	1.0	umhos/cm		210			0	20	11/26/13	
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SM 2540C - Quality Control

Batch: A314178

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: DEH

Blank (A314178-BLK1)

Total Dissolved Solids	ND	5.0	mg/L							12/02/13	
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Blank Spike (A314178-BS1)

Total Dissolved Solids	990	5.0	mg/L	1000		99	70-130			12/02/13	
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Duplicate (A314178-DUP1), Source: A3K1910-01

Total Dissolved Solids	29000	5.0	mg/L		28000			5	20	12/02/13	
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SM 4500-H+ B - Quality Control

Batch: A314132

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Duplicate (A314132-DUP1), Source: A3K1885-01

pH (1)	8.1		pH Units		8.1			0	20	11/26/13	
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Duplicate (A314132-DUP2), Source: A3K1922-06

pH (1)	7.9		pH Units		7.9			0	20	11/26/13	
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SM 4500-NH3 G - Quality Control

Batch: A314346

Prepared: 12/4/2013

Prep Method: Ammonia Distillation

Analyst: KKC

Blank (A314346-BLK1)

Ammonia as N	ND	0.10	mg/L							12/09/13	
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Blank Spike (A314346-BS1)

Ammonia as N	9.9	0.10	mg/L	10		99	80-120			12/09/13	
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Blank Spike Dup (A314346-BSD1)

Ammonia as N	10	0.10	mg/L	10		102	80-120	2	20	12/09/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-NH3 G - Quality Control

Batch: A314346

Prepared: 12/4/2013

Prep Method: Ammonia Distillation

Analyst: KKC

Matrix Spike (A314346-MS1), Source: A3K1829-06

Ammonia as N	9.9	0.10	mg/L	10	0.41	94	80-120			12/09/13	
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Matrix Spike (A314346-MS2), Source: A3K1880-10

Ammonia as N	9.3	0.10	mg/L	10	ND	92	80-120			12/09/13	
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Matrix Spike Dup (A314346-MSD1), Source: A3K1829-06

Ammonia as N	10	0.10	mg/L	10	0.41	99	80-120	5	20	12/09/13	
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Matrix Spike Dup (A314346-MSD2), Source: A3K1880-10

Ammonia as N	9.9	0.10	mg/L	10	ND	98	80-120	6	20	12/09/13	
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SM 4500-NO3 F - Quality Control

Batch: A314432

Prepared: 12/5/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314432-BLK1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	ND	0.10	mg/L							12/05/13	
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Blank Spike (A314432-BS1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	9.4	0.10	mg/L	10		94	80-120			12/05/13	
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Blank Spike Dup (A314432-BSD1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	9.5	0.10	mg/L	10		95	80-120	1	20	12/05/13	
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Matrix Spike (A314432-MS1), Source: A3K1854-02

Total Oxidizable Nitrogen, as N - Dissolved (1)	14	0.10	mg/L	10	4.9	96	80-120			12/05/13	
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Matrix Spike (A314432-MS2), Source: A3K1910-01

Total Oxidizable Nitrogen, as N - Dissolved (1)	8.7	0.10	mg/L	10	ND	87	80-120			12/05/13	
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Matrix Spike Dup (A314432-MSD1), Source: A3K1854-02

Total Oxidizable Nitrogen, as N - Dissolved (1)	15	0.10	mg/L	10	4.9	96	80-120	0	20	12/05/13	
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Matrix Spike Dup (A314432-MSD2), Source: A3K1910-01

Total Oxidizable Nitrogen, as N - Dissolved (1)	9.2	0.10	mg/L	10	ND	92	80-120	5	20	12/05/13	
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SM 4500-P E - Quality Control

Batch: A314203

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314203-BLK1)

Orthophosphate as P	ND	0.010	mg/L							11/27/13	
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Blank Spike (A314203-BS1)

Orthophosphate as P	0.23	0.010	mg/L	0.25		93	90-110			11/27/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-P E - Quality Control

Batch: A314203

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank Spike Dup (A314203-BSD1)

Orthophosphate as P	0.23	0.010	mg/L	0.25		92	90-110	1	20	11/27/13	
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Matrix Spike (A314203-MS1), Source: A3K1964-02

Orthophosphate as P	0.31	0.010	mg/L	0.25	0.082	91	80-120			11/27/13	
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Matrix Spike Dup (A314203-MSD1), Source: A3K1964-02

Orthophosphate as P	0.31	0.010	mg/L	0.25	0.082	92	80-120	1	20	11/27/13	
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SM 5540 C - Quality Control

Batch: A314153

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A314153-BLK1)

MBAS, Calculated as LAS, mol wt 340	ND	0.050	mg/L							11/27/13	
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Blank Spike (A314153-BS1)

MBAS, Calculated as LAS, mol wt 340	0.90	0.050	mg/L	1.0		90	80-120			11/27/13	
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Blank Spike Dup (A314153-BSD1)

MBAS, Calculated as LAS, mol wt 340	0.93	0.050	mg/L	1.0		93	80-120	3	20	11/27/13	
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Matrix Spike (A314153-MS1), Source: A3K1904-01

MBAS, Calculated as LAS, mol wt 340	1.0	0.050	mg/L	1.0	ND	99	80-120			11/27/13	
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Matrix Spike Dup (A314153-MSD1), Source: A3K1904-01

MBAS, Calculated as LAS, mol wt 340	0.97	0.050	mg/L	1.0	ND	93	80-120	6	20	11/27/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A314146

Prepared: 11/26/2013

Prep Method: EPA 200.2

Analyst: NRE

Blank (A314146-BLK2)

Aluminum	ND	0.050	mg/L							12/04/13	
Calcium	ND	0.10	mg/L							12/04/13	
Iron	ND	0.030	mg/L							12/04/13	
Magnesium	ND	0.10	mg/L							12/04/13	
Manganese	ND	0.010	mg/L							12/04/13	
Zinc	ND	0.050	mg/L							12/04/13	

Blank Spike (A314146-BS2)

Aluminum	0.19	0.050	mg/L	0.20		94	85-115			12/04/13	
Calcium	10	0.10	mg/L	10		100	85-115			12/04/13	
Iron	1.9	0.030	mg/L	2.0		97	85-115			12/04/13	
Magnesium	9.9	0.10	mg/L	10		99	85-115			12/04/13	
Manganese	0.20	0.010	mg/L	0.20		98	85-115			12/04/13	
Zinc	0.21	0.050	mg/L	0.20		103	85-115			12/04/13	

Blank Spike Dup (A314146-BSD2)

Aluminum	0.18	0.050	mg/L	0.20		91	85-115	3	20	12/04/13	
Calcium	10	0.10	mg/L	10		102	85-115	1	20	12/04/13	
Iron	2.0	0.030	mg/L	2.0		98	85-115	0	20	12/04/13	
Magnesium	9.9	0.10	mg/L	10		99	85-115	1	20	12/04/13	
Manganese	0.20	0.010	mg/L	0.20		98	85-115	0	20	12/04/13	
Zinc	0.21	0.050	mg/L	0.20		103	85-115	0	20	12/04/13	

Matrix Spike (A314146-MS3), Source: A3K1935-01

Aluminum	0.72	0.050	mg/L	0.20	0.42	150	70-130			12/04/13	MS1.0 High
Calcium	53	0.10	mg/L	10	43	101	70-130			12/04/13	
Iron	2.5	0.030	mg/L	2.0	0.52	99	70-130			12/04/13	
Magnesium	11	0.10	mg/L	10	0.68	99	70-130			12/04/13	
Manganese	0.21	0.010	mg/L	0.20	0.020	97	70-130			12/04/13	
Zinc	0.21	0.050	mg/L	0.20	ND	107	70-130			12/04/13	

Matrix Spike Dup (A314146-MSD3), Source: A3K1935-01

Aluminum	0.71	0.050	mg/L	0.20	0.42	144	70-130	1	20	12/04/13	MS1.0 High
Calcium	52	0.10	mg/L	10	43	92	70-130	2	20	12/04/13	
Iron	2.5	0.030	mg/L	2.0	0.52	99	70-130	0	20	12/04/13	
Magnesium	11	0.10	mg/L	10	0.68	99	70-130	0	20	12/04/13	
Manganese	0.21	0.010	mg/L	0.20	0.020	97	70-130	0	20	12/04/13	
Zinc	0.21	0.050	mg/L	0.20	ND	104	70-130	3	20	12/04/13	

EPA 200.7 - Quality Control

Batch: A314514

Prepared: 12/6/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A314514-BLK2)

Barium - Dissolved (1)	ND	0.050	mg/L							12/10/13	
Boron - Dissolved (1)	ND	0.10	mg/L							12/10/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A314514

Prepared: 12/6/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A314514-BLK2)

Calcium - Dissolved (1)	ND	0.10	mg/L							12/10/13	
Iron - Dissolved (1)	ND	0.030	mg/L							12/10/13	
Magnesium - Dissolved (1)	ND	0.10	mg/L							12/10/13	
Manganese - Dissolved (1)	ND	0.010	mg/L							12/10/13	
Potassium - Dissolved (1)	ND	2.0	mg/L							12/10/13	
Silica (SiO2) - Dissolved (1)	ND	0.20	mg/L							12/10/13	
Sodium - Dissolved (1)	ND	1.0	mg/L							12/10/13	

Blank Spike (A314514-BS2)

Barium - Dissolved (1)	0.21	0.050	mg/L	0.20		106	85-115			12/10/13	
Boron - Dissolved (1)	0.63	0.10	mg/L	0.60		106	85-115			12/10/13	
Calcium - Dissolved (1)	11	0.10	mg/L	10		108	85-115			12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0		104	85-115			12/10/13	
Magnesium - Dissolved (1)	10	0.10	mg/L	10		105	85-115			12/10/13	
Manganese - Dissolved (1)	0.21	0.010	mg/L	0.20		104	85-115			12/10/13	
Potassium - Dissolved (1)	11	2.0	mg/L	10		105	85-115			12/10/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		102	85-115			12/10/13	
Sodium - Dissolved (1)	11	1.0	mg/L	10		106	85-115			12/10/13	

Blank Spike Dup (A314514-BSD2)

Barium - Dissolved (1)	0.21	0.050	mg/L	0.20		105	85-115	1	20	12/10/13	
Boron - Dissolved (1)	0.63	0.10	mg/L	0.60		105	85-115	1	20	12/10/13	
Calcium - Dissolved (1)	11	0.10	mg/L	10		107	85-115	1	20	12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0		104	85-115	0	20	12/10/13	
Magnesium - Dissolved (1)	10	0.10	mg/L	10		104	85-115	1	20	12/10/13	
Manganese - Dissolved (1)	0.21	0.010	mg/L	0.20		103	85-115	1	20	12/10/13	
Potassium - Dissolved (1)	10	2.0	mg/L	10		103	85-115	2	20	12/10/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		101	85-115	1	20	12/10/13	
Sodium - Dissolved (1)	10	1.0	mg/L	10		104	85-115	2	20	12/10/13	

Matrix Spike (A314514-MS3), Source: A3K1890-01

Barium - Dissolved (1)	0.22	0.050	mg/L	0.20	ND	110	70-130			12/10/13	
Boron - Dissolved (1)	1.1	0.10	mg/L	0.60	0.48	102	70-130			12/10/13	
Calcium - Dissolved (1)	13	0.10	mg/L	10	2.2	106	70-130			12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.089	103	70-130			12/10/13	
Magnesium - Dissolved (1)	11	0.10	mg/L	10	0.27	103	70-130			12/10/13	
Manganese - Dissolved (1)	0.30	0.010	mg/L	0.20	0.091	102	70-130			12/10/13	
Potassium - Dissolved (1)	12	2.0	mg/L	10	ND	103	70-130			12/10/13	
Silica (SiO2) - Dissolved (1)	57	0.20	mg/L	2.1	55	123	70-130			12/10/13	
Sodium - Dissolved (1)	150	1.0	mg/L	10	140	105	70-130			12/10/13	

Matrix Spike (A314514-MS4), Source: A3L0185-01

Barium - Dissolved (1)	0.21	0.050	mg/L	0.20	ND	107	70-130			12/10/13	
Boron - Dissolved (1)	1.1	0.10	mg/L	0.60	0.52	103	70-130			12/10/13	
Calcium - Dissolved (1)	13	0.10	mg/L	10	2.7	106	70-130			12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.051	103	70-130			12/10/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A314514

Prepared: 12/6/2013

Prep Method: Filtration - Metals

Analyst: NRE

Matrix Spike (A314514-MS4), Source: A3L0185-01

Magnesium - Dissolved (1)	10	0.10	mg/L	10	0.29	101	70-130			12/10/13	
Manganese - Dissolved (1)	0.21	0.010	mg/L	0.20	ND	105	70-130			12/10/13	
Potassium - Dissolved (1)	12	2.0	mg/L	10	ND	102	70-130			12/10/13	
Silica (SiO2) - Dissolved (1)	59	0.20	mg/L	2.1	57	116	70-130			12/10/13	
Sodium - Dissolved (1)	160	1.0	mg/L	10	150	124	70-130			12/10/13	

Matrix Spike Dup (A314514-MSD3), Source: A3K1890-01

Barium - Dissolved (1)	0.22	0.050	mg/L	0.20	ND	111	70-130	1	20	12/10/13	
Boron - Dissolved (1)	1.1	0.10	mg/L	0.60	0.48	102	70-130	0	20	12/10/13	
Calcium - Dissolved (1)	13	0.10	mg/L	10	2.2	104	70-130	1	20	12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.089	103	70-130	0	20	12/10/13	
Magnesium - Dissolved (1)	10	0.10	mg/L	10	0.27	102	70-130	1	20	12/10/13	
Manganese - Dissolved (1)	0.29	0.010	mg/L	0.20	0.091	102	70-130	0	20	12/10/13	
Potassium - Dissolved (1)	12	2.0	mg/L	10	ND	103	70-130	0	20	12/10/13	
Silica (SiO2) - Dissolved (1)	57	0.20	mg/L	2.1	55	126	70-130	0	20	12/10/13	
Sodium - Dissolved (1)	150	1.0	mg/L	10	140	110	70-130	0	20	12/10/13	

Matrix Spike Dup (A314514-MSD4), Source: A3L0185-01

Barium - Dissolved (1)	0.22	0.050	mg/L	0.20	ND	109	70-130	2	20	12/10/13	
Boron - Dissolved (1)	1.2	0.10	mg/L	0.60	0.52	107	70-130	2	20	12/10/13	
Calcium - Dissolved (1)	14	0.10	mg/L	10	2.7	109	70-130	2	20	12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.051	104	70-130	1	20	12/10/13	
Magnesium - Dissolved (1)	10	0.10	mg/L	10	0.29	101	70-130	0	20	12/10/13	
Manganese - Dissolved (1)	0.21	0.010	mg/L	0.20	ND	105	70-130	0	20	12/10/13	
Potassium - Dissolved (1)	12	2.0	mg/L	10	ND	105	70-130	2	20	12/10/13	
Silica (SiO2) - Dissolved (1)	61	0.20	mg/L	2.1	57	221	70-130	4	20	12/10/13	MS1.0 High
Sodium - Dissolved (1)	160	1.0	mg/L	10	150	166	70-130	3	20	12/10/13	MS1.0 High

EPA 200.8 - Quality Control

Batch: A314146

Prepared: 11/26/2013

Prep Method: EPA 200.2

Analyst: MAS

Blank (A314146-BLK1)

Arsenic	ND	2.0	ug/L							11/27/13	
Copper	ND	5.0	ug/L							11/27/13	

Blank Spike (A314146-BS1)

Arsenic	190	2.0	ug/L	200		95	85-115			11/27/13	
Copper	180	5.0	ug/L	200		92	85-115			11/27/13	

Blank Spike Dup (A314146-BSD1)

Arsenic	190	2.0	ug/L	200		93	85-115	2	20	11/27/13	
Copper	180	5.0	ug/L	200		89	85-115	3	20	11/27/13	

Matrix Spike (A314146-MS1), Source: A3K1935-01

Arsenic	200	2.0	ug/L	200	10	95	70-130			11/27/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.8 - Quality Control

Batch: A314146

Prepared: 11/26/2013

Prep Method: EPA 200.2

Analyst: MAS

Matrix Spike (A314146-MS1), Source: A3K1935-01

Copper	180	5.0	ug/L	200	ND	87	70-130			11/27/13	
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Matrix Spike (A314146-MS2), Source: A3K1935-02

Arsenic	210	2.0	ug/L	200	13	99	70-130			11/27/13	
Copper	180	5.0	ug/L	200	ND	91	70-130			11/27/13	

Matrix Spike Dup (A314146-MSD1), Source: A3K1935-01

Arsenic	200	2.0	ug/L	200	10	96	70-130	1	20	11/27/13	
Copper	180	5.0	ug/L	200	ND	88	70-130	0	20	11/27/13	

Matrix Spike Dup (A314146-MSD2), Source: A3K1935-02

Arsenic	210	2.0	ug/L	200	13	98	70-130	1	20	11/27/13	
Copper	180	5.0	ug/L	200	ND	91	70-130	0	20	11/27/13	

EPA 200.8 - Quality Control

Batch: A314514

Prepared: 12/6/2013

Prep Method: Filtration - Metals

Analyst: MAS

Blank (A314514-BLK1)

Strontium - Dissolved (1)	ND	1.0	ug/L							12/10/13	
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Blank Spike (A314514-BS1)

Strontium - Dissolved (1)	200	1.0	ug/L	200		99	85-115			12/10/13	
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Blank Spike Dup (A314514-BSD1)

Strontium - Dissolved (1)	200	1.0	ug/L	200		98	85-115	1	20	12/10/13	
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Matrix Spike (A314514-MS1), Source: A3K1890-01

Strontium - Dissolved (1)	220	1.0	ug/L	200	23	101	70-130			12/10/13	
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Matrix Spike Dup (A314514-MSD1), Source: A3K1890-01

Strontium - Dissolved (1)	220	1.0	ug/L	200	23	96	70-130	4	20	12/10/13	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A314194

Prepared: 11/27/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A314194-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							11/27/13	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							11/27/13	
Surrogate: TCMX	4.2			4.5		94	70-130			11/27/13	

Blank Spike (A314194-BS1)

Dibromochloropropane (DBCP)	0.21	0.010	ug/L	0.20		107	70-130			11/27/13	
Ethylene Dibromide (EDB)	0.22	0.020	ug/L	0.20		108	70-130			11/27/13	
Surrogate: TCMX	4.2			4.5		93	70-130			11/27/13	

Blank Spike Dup (A314194-BSD1)

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20		108	70-130	1	20	11/28/13	
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.20		105	70-130	3	20	11/28/13	
Surrogate: TCMX	4.2			4.5		95	70-130			11/28/13	

Matrix Spike (A314194-MS1), Source: A3K1596-06

Dibromochloropropane (DBCP)	0.23	0.010	ug/L	0.20	ND	113	65-135			11/27/13	
Ethylene Dibromide (EDB)	0.20	0.020	ug/L	0.20	ND	98	65-135			11/27/13	
Surrogate: TCMX	4.0			4.5		88	70-130			11/27/13	

Matrix Spike Dup (A314194-MSD1), Source: A3K1596-06

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20	ND	111	65-135	1	20	11/27/13	
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.20	ND	105	65-135	7	20	11/27/13	
Surrogate: TCMX	4.1			4.5		90	70-130			11/27/13	

EPA 505 - Quality Control

Batch: A314194

Prepared: 11/27/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A314194-BLK1)

Aldrin	ND	0.075	ug/L							11/27/13	
Chlordane	ND	0.10	ug/L							11/27/13	
Chlorothalonil	ND	5.0	ug/L							11/27/13	
Dieldrin	ND	0.020	ug/L							11/27/13	
Endrin	ND	0.10	ug/L							11/27/13	
Heptachlor	ND	0.010	ug/L							11/27/13	
Heptachlor Epoxide	ND	0.010	ug/L							11/27/13	
Hexachlorobenzene	ND	0.50	ug/L							11/27/13	
Hexachlorocyclopentadiene	ND	1.0	ug/L							11/27/13	
Lindane	ND	0.20	ug/L							11/27/13	
Methoxychlor	ND	10	ug/L							11/27/13	
PCB Aroclor Screen	ND	0.50	ug/L							11/27/13	
Toxaphene	ND	1.0	ug/L							11/27/13	
Trifluralin	ND	1.0	ug/L							11/27/13	
Surrogate: TCMX	4.2			4.5		94	70-130			11/27/13	

Blank Spike (A314194-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A314194

Prepared: 11/27/2013

Prep Method: EPA 505

Analyst: GAK

Blank Spike (A314194-BS1)

Aldrin	1.0	0.075	ug/L	1.0		101	70-130			11/27/13	
Chlorothalonil	9.8	5.0	ug/L	10		98	70-130			11/27/13	
Dieldrin	0.47	0.020	ug/L	0.40		117	70-130			11/27/13	
Endrin	0.23	0.10	ug/L	0.20		115	70-130			11/27/13	
Heptachlor	0.23	0.010	ug/L	0.20		115	70-130			11/27/13	
Heptachlor Epoxide	0.23	0.010	ug/L	0.20		113	70-130			11/27/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0		103	70-130			11/27/13	
Hexachlorocyclopentadiene	2.0	1.0	ug/L	2.0		99	70-130			11/27/13	
Lindane	0.47	0.20	ug/L	0.40		117	70-130			11/27/13	
Methoxychlor	2.5	10	ug/L	2.0		124	70-130			11/27/13	
Trifluralin	2.3	1.0	ug/L	2.0		116	70-130			11/27/13	
Surrogate: TCMX	4.2			4.5		93	70-130			11/27/13	

Blank Spike Dup (A314194-BSD1)

Aldrin	0.98	0.075	ug/L	1.0		98	70-130	3	20	11/28/13	
Chlorothalonil	9.9	5.0	ug/L	10		99	70-130	1	20	11/28/13	
Dieldrin	0.47	0.020	ug/L	0.40		116	70-130	0	20	11/28/13	
Endrin	0.23	0.10	ug/L	0.20		114	70-130	1	20	11/28/13	
Heptachlor	0.23	0.010	ug/L	0.20		113	70-130	2	20	11/28/13	
Heptachlor Epoxide	0.24	0.010	ug/L	0.20		119	70-130	6	20	11/28/13	
Hexachlorobenzene	2.0	0.50	ug/L	2.0		100	70-130	3	20	11/28/13	
Hexachlorocyclopentadiene	1.8	1.0	ug/L	2.0		88	70-130	11	20	11/28/13	
Lindane	0.47	0.20	ug/L	0.40		118	70-130	1	20	11/28/13	
Methoxychlor	2.5	10	ug/L	2.0		125	70-130	1	20	11/28/13	
Trifluralin	2.3	1.0	ug/L	2.0		114	70-130	1	20	11/28/13	
Surrogate: TCMX	4.2			4.5		95	70-130			11/28/13	

Matrix Spike (A314194-MS1), Source: A3K1596-06

Aldrin	0.91	0.075	ug/L	1.0	ND	90	65-135			11/27/13	
Chlorothalonil	10	5.0	ug/L	10	ND	99	65-135			11/27/13	
Dieldrin	0.46	0.020	ug/L	0.40	ND	113	65-135			11/27/13	
Endrin	0.24	0.10	ug/L	0.20	ND	118	65-135			11/27/13	
Heptachlor	0.21	0.010	ug/L	0.20	ND	104	65-135			11/27/13	
Heptachlor Epoxide	0.23	0.010	ug/L	0.20	ND	114	65-135			11/27/13	
Hexachlorobenzene	1.9	0.50	ug/L	2.0	ND	96	65-135			11/27/13	
Hexachlorocyclopentadiene	1.6	1.0	ug/L	2.0	ND	77	65-135			11/27/13	
Lindane	0.47	0.20	ug/L	0.40	ND	117	65-135			11/27/13	
Methoxychlor	2.5	10	ug/L	2.0	ND	126	65-135			11/27/13	
Trifluralin	2.0	1.0	ug/L	2.0	ND	101	65-135			11/27/13	
Surrogate: TCMX	4.0			4.5		88	70-130			11/27/13	

Matrix Spike Dup (A314194-MSD1), Source: A3K1596-06

Aldrin	1.0	0.075	ug/L	1.0	ND	100	65-135	10	20	11/27/13	
Chlorothalonil	10	5.0	ug/L	10	ND	102	65-135	3	20	11/27/13	
Dieldrin	0.47	0.020	ug/L	0.40	ND	117	65-135	4	20	11/27/13	
Endrin	0.24	0.10	ug/L	0.20	ND	119	65-135	1	20	11/27/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A314194

Prepared: 11/27/2013

Prep Method: EPA 505

Analyst: GAK

Matrix Spike Dup (A314194-MSD1), Source: A3K1596-06

Heptachlor	0.23	0.010	ug/L	0.20	ND	114	65-135	9	20	11/27/13	
Heptachlor Epoxide	0.24	0.010	ug/L	0.20	ND	119	65-135	4	20	11/27/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0	ND	104	65-135	8	20	11/27/13	
Hexachlorocyclopentadiene	1.8	1.0	ug/L	2.0	ND	90	65-135	15	20	11/27/13	
Lindane	0.48	0.20	ug/L	0.40	ND	118	65-135	1	20	11/27/13	
Methoxychlor	2.6	10	ug/L	2.0	ND	130	65-135	4	20	11/27/13	
Trifluralin	2.1	1.0	ug/L	2.0	ND	106	65-135	5	20	11/27/13	
Surrogate: TCMX	4.1			4.5		90	70-130			11/27/13	

EPA 515.3 - Quality Control

Batch: A314421

Prepared: 12/5/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank (A314421-BLK1)

2,4,5-T	ND	1.0	ug/L							12/08/13	
2,4,5-TP (Silvex)	ND	1.0	ug/L							12/08/13	
2,4-D	ND	10	ug/L							12/08/13	
Bentazon	ND	2.0	ug/L							12/08/13	
Dalapon	ND	10	ug/L							12/08/13	
Dicamba	ND	1.5	ug/L							12/08/13	
Dinoseb	ND	2.0	ug/L							12/08/13	
Pentachlorophenol	ND	0.20	ug/L							12/08/13	
Picloram	ND	1.0	ug/L							12/08/13	
Surrogate: DCPAA	43			58		73	70-130			12/08/13	

Blank Spike (A314421-BS1)

2,4,5-T	4.2	1.0	ug/L	4.0		104	70-130			12/08/13	
2,4,5-TP (Silvex)	4.1	1.0	ug/L	4.0		104	70-130			12/08/13	
2,4-D	41	10	ug/L	40		103	70-130			12/08/13	
Bentazon	8.7	2.0	ug/L	8.0		109	70-130			12/08/13	
Dalapon	40	10	ug/L	40		99	70-130			12/08/13	
Dicamba	6.1	1.5	ug/L	6.0		101	70-130			12/08/13	
Dinoseb	7.8	2.0	ug/L	8.0		97	70-130			12/08/13	
Pentachlorophenol	0.81	0.20	ug/L	0.80		101	70-130			12/08/13	
Picloram	3.8	1.0	ug/L	4.0		96	70-130			12/08/13	
Surrogate: DCPAA	45			58		78	70-130			12/08/13	

Blank Spike Dup (A314421-BSD1)

2,4,5-T	4.1	1.0	ug/L	4.0		102	70-130	3	20	12/08/13	
2,4,5-TP (Silvex)	4.1	1.0	ug/L	4.0		101	70-130	2	20	12/08/13	
2,4-D	40	10	ug/L	40		100	70-130	3	20	12/08/13	
Bentazon	8.7	2.0	ug/L	8.0		109	70-130	0	20	12/08/13	
Dalapon	39	10	ug/L	40		99	70-130	0	20	12/08/13	
Dicamba	5.9	1.5	ug/L	6.0		98	70-130	3	20	12/08/13	
Dinoseb	7.6	2.0	ug/L	8.0		95	70-130	2	20	12/08/13	
Pentachlorophenol	0.80	0.20	ug/L	0.80		100	70-130	1	20	12/08/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A314421

Prepared: 12/5/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A314421-BSD1)

Picloram	3.9	1.0	ug/L	4.0		97	70-130	1	20	12/08/13	
Surrogate: DCPAA	45			58		78	70-130			12/08/13	

Matrix Spike (A314421-MS1), Source: A3K1910-01

2,4,5-T	4.2	1.0	ug/L	4.0	ND	104	70-130			12/08/13	
2,4,5-TP (Silvex)	4.1	1.0	ug/L	4.0	ND	102	70-130			12/08/13	
2,4-D	42	10	ug/L	40	ND	105	70-130			12/08/13	
Bentazon	8.7	2.0	ug/L	8.0	ND	109	70-130			12/08/13	
Dalapon	41	10	ug/L	40	ND	102	70-130			12/08/13	
Dicamba	6.2	1.5	ug/L	6.0	ND	103	70-130			12/08/13	
Dinoseb	7.5	2.0	ug/L	8.0	ND	93	70-130			12/08/13	
Pentachlorophenol	0.80	0.20	ug/L	0.80	ND	100	70-130			12/08/13	
Picloram	4.3	1.0	ug/L	4.0	ND	102	70-130			12/08/13	
Surrogate: DCPAA	46			58		80	70-130			12/08/13	

Matrix Spike Dup (A314421-MSD1), Source: A3K1910-01

2,4,5-T	4.2	1.0	ug/L	4.0	ND	104	70-130	0	20	12/08/13	
2,4,5-TP (Silvex)	4.1	1.0	ug/L	4.0	ND	103	70-130	1	20	12/08/13	
2,4-D	42	10	ug/L	40	ND	106	70-130	1	20	12/08/13	
Bentazon	8.7	2.0	ug/L	8.0	ND	109	70-130	0	20	12/08/13	
Dalapon	41	10	ug/L	40	ND	104	70-130	2	20	12/08/13	
Dicamba	6.2	1.5	ug/L	6.0	ND	104	70-130	1	20	12/08/13	
Dinoseb	7.5	2.0	ug/L	8.0	ND	94	70-130	0	20	12/08/13	
Pentachlorophenol	0.80	0.20	ug/L	0.80	ND	100	70-130	1	20	12/08/13	
Picloram	4.3	1.0	ug/L	4.0	ND	103	70-130	1	20	12/08/13	
Surrogate: DCPAA	47			58		81	70-130			12/08/13	

EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A314277-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							12/04/13	
1,1,1-Trichloroethane	ND	0.50	ug/L							12/04/13	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							12/04/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							12/04/13	
1,1,2-Trichloroethane	ND	0.50	ug/L							12/04/13	
1,1-Dichloroethane	ND	0.50	ug/L							12/04/13	
1,1-Dichloroethene	ND	0.50	ug/L							12/04/13	
1,1-Dichloropropene	ND	0.50	ug/L							12/04/13	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							12/04/13	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							12/04/13	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							12/04/13	
1,2-Dichlorobenzene	ND	0.50	ug/L							12/04/13	
1,2-Dichloroethane	ND	0.50	ug/L							12/04/13	
1,2-Dichloropropane	ND	0.50	ug/L							12/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A314277-BLK1)

1,3,5-Trimethylbenzene	ND	0.50	ug/L							12/04/13	
1,3-Dichlorobenzene	ND	0.50	ug/L							12/04/13	
1,3-Dichloropropane	ND	0.50	ug/L							12/04/13	
1,4-Dichlorobenzene	ND	0.50	ug/L							12/04/13	
2,2-Dichloropropane	ND	0.50	ug/L							12/04/13	
2-Butanone	ND	5.0	ug/L							12/04/13	
2-Chlorotoluene	ND	0.50	ug/L							12/04/13	
2-Hexanone	ND	10	ug/L							12/04/13	
4-Chlorotoluene	ND	0.50	ug/L							12/04/13	
4-Methyl-2-pentanone	ND	5.0	ug/L							12/04/13	
Acetone	ND	10	ug/L							12/04/13	
Benzene	ND	0.50	ug/L							12/04/13	
Bromobenzene	ND	0.50	ug/L							12/04/13	
Bromochloromethane	ND	0.50	ug/L							12/04/13	
Bromodichloromethane	ND	0.50	ug/L							12/04/13	
Bromoform	ND	0.50	ug/L							12/04/13	
Bromomethane	ND	0.50	ug/L							12/04/13	
Carbon Tetrachloride	ND	0.50	ug/L							12/04/13	
Chlorobenzene	ND	0.50	ug/L							12/04/13	
Chloroethane	ND	0.50	ug/L							12/04/13	
Chloroform	ND	0.50	ug/L							12/04/13	
Chloromethane	ND	0.50	ug/L							12/04/13	
cis-1,2-Dichloroethene	ND	0.50	ug/L							12/04/13	
cis-1,3-Dichloropropene	ND	0.50	ug/L							12/04/13	
Dibromochloromethane	ND	0.50	ug/L							12/04/13	
Dibromomethane	ND	0.50	ug/L							12/04/13	
Dichlorodifluoromethane	ND	0.50	ug/L							12/04/13	
Dichloromethane	ND	0.50	ug/L							12/04/13	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							12/04/13	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							12/04/13	
Ethylbenzene	ND	0.50	ug/L							12/04/13	
Hexachlorobutadiene	ND	0.50	ug/L							12/04/13	
Isopropylbenzene	ND	0.50	ug/L							12/04/13	
m,p-Xylenes	ND	0.50	ug/L							12/04/13	
Methyl-t-butyl ether	ND	0.50	ug/L							12/04/13	
Naphthalene	ND	0.50	ug/L							12/04/13	
n-Butylbenzene	ND	0.50	ug/L							12/04/13	
n-Propylbenzene	ND	0.50	ug/L							12/04/13	
o-Xylene	ND	0.50	ug/L							12/04/13	
p-Isopropyltoluene	ND	0.50	ug/L							12/04/13	
sec-Butylbenzene	ND	0.50	ug/L							12/04/13	
Styrene	ND	0.50	ug/L							12/04/13	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							12/04/13	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							12/04/13	
tert-Butylbenzene	ND	0.50	ug/L							12/04/13	
Tetrachloroethene (PCE)	ND	0.50	ug/L							12/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A314277-BLK1)

Toluene	ND	0.50	ug/L							12/04/13	
trans-1,2-Dichloroethene	ND	0.50	ug/L							12/04/13	
trans-1,3-Dichloropropene	ND	0.50	ug/L							12/04/13	
Trichloroethene (TCE)	ND	0.50	ug/L							12/04/13	
Trichlorofluoromethane	ND	5.0	ug/L							12/04/13	
Vinyl Chloride	ND	0.50	ug/L							12/04/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.5			5.0		90	70-130			12/04/13	
Surrogate: Bromofluorobenzene	51			50		101	70-130			12/04/13	

Blank Spike (A314277-BS1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		104	70-130			12/04/13	
1,1,1-Trichloroethane	12	0.50	ug/L	10		117	70-130			12/04/13	
1,1,2,2-Tetrachloroethane	10	0.50	ug/L	10		103	70-130			12/04/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	10	10	ug/L	10		102	70-130			12/04/13	
1,1,2-Trichloroethane	10	0.50	ug/L	10		102	70-130			12/04/13	
1,1-Dichloroethane	11	0.50	ug/L	10		112	70-130			12/04/13	
1,1-Dichloroethene	11	0.50	ug/L	10		112	70-130			12/04/13	
1,1-Dichloropropene	11	0.50	ug/L	10		106	70-130			12/04/13	
1,2,3-Trichlorobenzene	11	0.50	ug/L	10		112	70-130			12/04/13	
1,2,4-Trichlorobenzene	12	0.50	ug/L	10		116	70-130			12/04/13	
1,2,4-Trimethylbenzene	11	0.50	ug/L	10		112	70-130			12/04/13	
1,2-Dichlorobenzene	11	0.50	ug/L	10		112	70-130			12/04/13	
1,2-Dichloroethane	12	0.50	ug/L	10		118	70-130			12/04/13	
1,2-Dichloropropane	10	0.50	ug/L	10		103	70-130			12/04/13	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		107	70-130			12/04/13	
1,3-Dichlorobenzene	12	0.50	ug/L	10		121	70-130			12/04/13	
1,3-Dichloropropane	10	0.50	ug/L	10		104	70-130			12/04/13	
1,4-Dichlorobenzene	11	0.50	ug/L	10		111	70-130			12/04/13	
2,2-Dichloropropane	12	0.50	ug/L	10		121	70-130			12/04/13	
2-Butanone	11	5.0	ug/L	10		107	70-130			12/04/13	
2-Chlorotoluene	12	0.50	ug/L	10		116	70-130			12/04/13	
2-Hexanone	11	10	ug/L	10		112	70-130			12/04/13	
4-Chlorotoluene	12	0.50	ug/L	10		120	70-130			12/04/13	
4-Methyl-2-pentanone	8.5	5.0	ug/L	10		85	70-130			12/04/13	
Acetone	12	10	ug/L	10		120	70-130			12/04/13	
Benzene	10	0.50	ug/L	10		105	70-130			12/04/13	
Bromobenzene	11	0.50	ug/L	10		109	70-130			12/04/13	
Bromochloromethane	11	0.50	ug/L	10		112	70-130			12/04/13	
Bromodichloromethane	11	0.50	ug/L	10		112	70-130			12/04/13	
Bromoform	10	0.50	ug/L	10		102	70-130			12/04/13	
Bromomethane	15	0.50	ug/L	10		152	70-130			12/04/13	BS High
Carbon Tetrachloride	11	0.50	ug/L	10		114	70-130			12/04/13	
Chlorobenzene	11	0.50	ug/L	10		107	70-130			12/04/13	
Chloroethane	11	0.50	ug/L	10		110	70-130			12/04/13	
Chloroform	11	0.50	ug/L	10		114	70-130			12/04/13	
Chloromethane	12	0.50	ug/L	10		116	70-130			12/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A314277-BS1)

cis-1,2-Dichloroethene	11	0.50	ug/L	10		109	70-130			12/04/13	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		113	70-130			12/04/13	
Dibromochloromethane	10	0.50	ug/L	10		103	70-130			12/04/13	
Dibromomethane	11	0.50	ug/L	10		111	70-130			12/04/13	
Dichlorodifluoromethane	11	0.50	ug/L	10		107	70-130			12/04/13	
Dichloromethane	11	0.50	ug/L	10		110	70-130			12/04/13	
Di-isopropyl ether (DIPE)	10	3.0	ug/L	10		104	70-130			12/04/13	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		105	70-130			12/04/13	
Ethylbenzene	11	0.50	ug/L	10		112	70-130			12/04/13	
Hexachlorobutadiene	12	0.50	ug/L	10		120	70-130			12/04/13	
Isopropylbenzene	10	0.50	ug/L	10		105	70-130			12/04/13	
m,p-Xylenes	22	0.50	ug/L	20		108	70-130			12/04/13	
Methyl-t-butyl ether	21	0.50	ug/L	20		107	70-130			12/04/13	
Naphthalene	9.7	0.50	ug/L	10		97	70-130			12/04/13	
n-Butylbenzene	11	0.50	ug/L	10		109	70-130			12/04/13	
n-Propylbenzene	12	0.50	ug/L	10		116	70-130			12/04/13	
o-Xylene	11	0.50	ug/L	10		114	70-130			12/04/13	
p-Isopropyltoluene	12	0.50	ug/L	10		117	70-130			12/04/13	
sec-Butylbenzene	12	0.50	ug/L	10		119	70-130			12/04/13	
Styrene	7.8	0.50	ug/L	10		78	70-130			12/04/13	
tert-Amyl Methyl Ether (TAME)	9.8	3.0	ug/L	10		98	70-130			12/04/13	
tert-Butyl alcohol (TBA)	14	2.0	ug/L	10		135	70-130			12/04/13	BS High
tert-Butylbenzene	12	0.50	ug/L	10		117	70-130			12/04/13	
Tetrachloroethene (PCE)	11	0.50	ug/L	10		109	70-130			12/04/13	
Toluene	11	0.50	ug/L	10		106	70-130			12/04/13	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		114	70-130			12/04/13	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		111	70-130			12/04/13	
Trichloroethene (TCE)	11	0.50	ug/L	10		106	70-130			12/04/13	
Trichlorofluoromethane	11	5.0	ug/L	10		107	70-130			12/04/13	
Vinyl Chloride	11	0.50	ug/L	10		110	70-130			12/04/13	
Surrogate: 1,2-Dichlorobenzene-d4	5.4			5.0		108	70-130			12/04/13	
Surrogate: Bromofluorobenzene	53			50		106	70-130			12/04/13	

Blank Spike Dup (A314277-BSD1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		104	70-130	1	30	12/04/13	
1,1,1-Trichloroethane	12	0.50	ug/L	10		123	70-130	5	30	12/04/13	
1,1,2,2-Tetrachloroethane	12	0.50	ug/L	10		123	70-130	18	30	12/04/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	12	10	ug/L	10		118	70-130	14	30	12/04/13	
1,1,2-Trichloroethane	12	0.50	ug/L	10		120	70-130	17	30	12/04/13	
1,1-Dichloroethane	10	0.50	ug/L	10		104	70-130	8	30	12/04/13	
1,1-Dichloroethene	13	0.50	ug/L	10		128	70-130	14	30	12/04/13	
1,1-Dichloropropene	12	0.50	ug/L	10		124	70-130	16	30	12/04/13	
1,2,3-Trichlorobenzene	11	0.50	ug/L	10		108	70-130	3	30	12/04/13	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		111	70-130	4	30	12/04/13	
1,2,4-Trimethylbenzene	12	0.50	ug/L	10		120	70-130	7	30	12/04/13	
1,2-Dichlorobenzene	12	0.50	ug/L	10		123	70-130	9	30	12/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A314277-BSD1)

1,2-Dichloroethane	11	0.50	ug/L	10		109	70-130	9	30	12/04/13	
1,2-Dichloropropane	9.7	0.50	ug/L	10		97	70-130	6	30	12/04/13	
1,3,5-Trimethylbenzene	12	0.50	ug/L	10		117	70-130	9	30	12/04/13	
1,3-Dichlorobenzene	13	0.50	ug/L	10		126	70-130	4	30	12/04/13	
1,3-Dichloropropane	11	0.50	ug/L	10		105	70-130	2	30	12/04/13	
1,4-Dichlorobenzene	12	0.50	ug/L	10		122	70-130	9	30	12/04/13	
2,2-Dichloropropane	13	0.50	ug/L	10		131	70-130	8	30	12/04/13	BS High
2-Butanone	9.3	5.0	ug/L	10		93	70-130	15	30	12/04/13	
2-Chlorotoluene	13	0.50	ug/L	10		130	70-130	11	30	12/04/13	
2-Hexanone	11	10	ug/L	10		113	70-130	1	30	12/04/13	
4-Chlorotoluene	13	0.50	ug/L	10		130	70-130	9	30	12/04/13	
4-Methyl-2-pentanone	11	5.0	ug/L	10		110	70-130	26	30	12/04/13	
Acetone	11	10	ug/L	10		114	70-130	5	30	12/04/13	
Benzene	10	0.50	ug/L	10		102	70-130	3	30	12/04/13	
Bromobenzene	13	0.50	ug/L	10		130	70-130	18	30	12/04/13	
Bromochloromethane	12	0.50	ug/L	10		117	70-130	4	30	12/04/13	
Bromodichloromethane	12	0.50	ug/L	10		117	70-130	5	30	12/04/13	
Bromoform	11	0.50	ug/L	10		110	70-130	8	30	12/04/13	
Bromomethane	28	0.50	ug/L	10		275	70-130	58	30	12/04/13	BS, X.0 High
Carbon Tetrachloride	12	0.50	ug/L	10		125	70-130	9	30	12/04/13	
Chlorobenzene	10	0.50	ug/L	10		103	70-130	4	30	12/04/13	
Chloroethane	12	0.50	ug/L	10		122	70-130	11	30	12/04/13	
Chloroform	13	0.50	ug/L	10		128	70-130	12	30	12/04/13	
Chloromethane	14	0.50	ug/L	10		135	70-130	15	30	12/04/13	BS High
cis-1,2-Dichloroethene	11	0.50	ug/L	10		113	70-130	3	30	12/04/13	
cis-1,3-Dichloropropene	12	0.50	ug/L	10		118	70-130	4	30	12/04/13	
Dibromochloromethane	11	0.50	ug/L	10		113	70-130	9	30	12/04/13	
Dibromomethane	11	0.50	ug/L	10		106	70-130	4	30	12/04/13	
Dichlorodifluoromethane	14	0.50	ug/L	10		139	70-130	26	30	12/04/13	BS High
Dichloromethane	12	0.50	ug/L	10		121	70-130	9	30	12/04/13	
Di-isopropyl ether (DIPE)	9.7	3.0	ug/L	10		97	70-130	7	30	12/04/13	
Ethyl tert-Butyl Ether (ETBE)	12	0.50	ug/L	10		119	70-130	13	30	12/04/13	
Ethylbenzene	12	0.50	ug/L	10		121	70-130	8	30	12/04/13	
Hexachlorobutadiene	12	0.50	ug/L	10		120	70-130	0	30	12/04/13	
Isopropylbenzene	13	0.50	ug/L	10		131	70-130	22	30	12/04/13	BS High
m,p-Xylenes	23	0.50	ug/L	20		116	70-130	7	30	12/04/13	
Methyl-t-butyl ether	26	0.50	ug/L	20		132	70-130	21	30	12/04/13	BS High
Naphthalene	8.8	0.50	ug/L	10		88	70-130	10	30	12/04/13	
n-Butylbenzene	11	0.50	ug/L	10		109	70-130	0	30	12/04/13	
n-Propylbenzene	13	0.50	ug/L	10		134	70-130	14	30	12/04/13	BS High
o-Xylene	14	0.50	ug/L	10		144	70-130	23	30	12/04/13	BS High
p-Isopropyltoluene	12	0.50	ug/L	10		122	70-130	4	30	12/04/13	
sec-Butylbenzene	12	0.50	ug/L	10		124	70-130	4	30	12/04/13	
Styrene	8.5	0.50	ug/L	10		85	70-130	8	30	12/04/13	
tert-Amyl Methyl Ether (TAME)	8.9	3.0	ug/L	10		89	70-130	9	30	12/04/13	
tert-Butyl alcohol (TBA)	8.1	2.0	ug/L	10		81	70-130	50	30	12/04/13	BS4.0

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A314277-BSD1)

tert-Butylbenzene	12	0.50	ug/L	10		122	70-130	4	30	12/04/13	
Tetrachloroethene (PCE)	10	0.50	ug/L	10		104	70-130	4	30	12/04/13	
Toluene	12	0.50	ug/L	10		120	70-130	12	30	12/04/13	
trans-1,2-Dichloroethene	13	0.50	ug/L	10		126	70-130	10	30	12/04/13	
trans-1,3-Dichloropropene	12	0.50	ug/L	10		119	70-130	7	30	12/04/13	
Trichloroethene (TCE)	10	0.50	ug/L	10		105	70-130	1	30	12/04/13	
Trichlorofluoromethane	12	5.0	ug/L	10		123	70-130	13	30	12/04/13	
Vinyl Chloride	13	0.50	ug/L	10		129	70-130	16	30	12/04/13	
Surrogate: 1,2-Dichlorobenzene-d4	6.1			5.0		121	70-130			12/04/13	
Surrogate: Bromofluorobenzene	64			50		129	70-130			12/04/13	

EPA 525.2 - Quality Control

Batch: A314276

Prepared: 12/3/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank (A314276-BLK1)

Alachlor	ND	1.0	ug/L							12/03/13	
Atrazine	ND	0.50	ug/L							12/03/13	
Benzo(a)pyrene	ND	0.10	ug/L							12/03/13	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							12/03/13	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							12/03/13	
Bromacil	ND	10	ug/L							12/03/13	
Butachlor	ND	0.38	ug/L							12/03/13	
Diazinon	ND	0.25	ug/L							12/03/13	
Dimethoate	ND	10	ug/L							12/03/13	
Metolachlor	ND	0.50	ug/L							12/03/13	
Metribuzin	ND	0.50	ug/L							12/03/13	
Molinate	ND	2.0	ug/L							12/03/13	
Propachlor	ND	0.50	ug/L							12/03/13	
Simazine	ND	1.0	ug/L							12/03/13	
Thiobencarb	ND	1.0	ug/L							12/03/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.6			5.0		91	70-130			12/03/13	

Blank Spike (A314276-BS1)

Alachlor	0.54	1.0	ug/L	0.51		105	70-130			12/03/13	
Atrazine	0.52	0.50	ug/L	0.51		102	70-130			12/03/13	
Benzo(a)pyrene	0.11	0.10	ug/L	0.10		109	70-130			12/03/13	
Bis(2-ethylhexyl) adipate	3.4	3.0	ug/L	3.1		109	70-130			12/03/13	
Bis(2-ethylhexyl) phthalate	3.4	3.0	ug/L	3.1		111	70-130			12/03/13	
Bromacil	2.5	10	ug/L	2.0		120	70-130			12/03/13	
Butachlor	1.5	0.38	ug/L	1.3		114	70-130			12/03/13	
Diazinon	0.045	0.25	ug/L	0.051		88	70-130			12/03/13	
Dimethoate	0.60	10	ug/L	0.51		118	70-130			12/03/13	
Metolachlor	2.9	0.50	ug/L	2.6		114	70-130			12/03/13	
Metribuzin	2.8	0.50	ug/L	2.6		110	70-130			12/03/13	
Molinate	2.7	2.0	ug/L	2.6		107	70-130			12/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A314276

Prepared: 12/3/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A314276-BS1)

Propachlor	2.9	0.50	ug/L	2.6		113	70-130			12/03/13	
Simazine	0.41	1.0	ug/L	0.36		116	70-130			12/03/13	
Thiobencarb	0.59	1.0	ug/L	0.51		115	70-130			12/03/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.6			5.1		91	70-130			12/03/13	

Blank Spike Dup (A314276-BSD1)

Alachlor	0.52	1.0	ug/L	0.49		106	70-130	2	30	12/03/13	
Atrazine	0.52	0.50	ug/L	0.49		106	70-130	0	30	12/03/13	
Benzo(a)pyrene	0.11	0.10	ug/L	0.098		113	70-130	0	30	12/03/13	
Bis(2-ethylhexyl) adipate	3.1	3.0	ug/L	3.0		103	70-130	9	30	12/03/13	
Bis(2-ethylhexyl) phthalate	3.2	3.0	ug/L	3.0		108	70-130	6	30	12/03/13	
Bromacil	2.4	10	ug/L	2.0		120	70-130	4	30	12/03/13	
Butachlor	1.4	0.38	ug/L	1.2		110	70-130	7	30	12/03/13	
Diazinon	0.041	0.25	ug/L	0.049		84	70-130	8	30	12/03/13	
Dimethoate	0.59	10	ug/L	0.49		119	70-130	3	30	12/03/13	
Metolachlor	2.7	0.50	ug/L	2.5		111	70-130	7	30	12/03/13	
Metribuzin	2.7	0.50	ug/L	2.5		108	70-130	5	30	12/03/13	
Molinate	2.6	2.0	ug/L	2.5		106	70-130	5	30	12/03/13	
Propachlor	2.5	0.50	ug/L	2.5		101	70-130	15	30	12/03/13	
Simazine	0.38	1.0	ug/L	0.34		111	70-130	8	30	12/03/13	
Thiobencarb	0.56	1.0	ug/L	0.49		113	70-130	5	30	12/03/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.6			4.9		94	70-130			12/03/13	

Matrix Spike (A314276-MS1), Source: A3K1830-01

Alachlor	0.54	1.0	ug/L	0.50	ND	109	70-130			12/03/13	
Atrazine	0.53	0.50	ug/L	0.50	ND	108	70-130			12/03/13	
Benzo(a)pyrene	0.13	0.10	ug/L	0.099	ND	131	70-130			12/03/13	MS1.0 High
Bis(2-ethylhexyl) adipate	3.5	3.0	ug/L	3.0	ND	117	70-130			12/03/13	
Bis(2-ethylhexyl) phthalate	3.2	3.0	ug/L	3.0	ND	106	70-130			12/03/13	
Bromacil	2.4	10	ug/L	2.0	ND	124	70-130			12/03/13	
Butachlor	1.4	0.38	ug/L	1.2	ND	111	70-130			12/03/13	
Diazinon	0.049	0.25	ug/L	0.050	ND	98	70-130			12/03/13	
Dimethoate	0.56	10	ug/L	0.50	ND	114	70-130			12/03/13	
Metolachlor	2.8	0.50	ug/L	2.5	ND	113	70-130			12/03/13	
Metribuzin	2.7	0.50	ug/L	2.5	ND	109	70-130			12/03/13	
Molinate	2.6	2.0	ug/L	2.5	ND	106	70-130			12/03/13	
Propachlor	2.7	0.50	ug/L	2.5	ND	109	70-130			12/03/13	
Simazine	0.39	1.0	ug/L	0.35	ND	113	70-130			12/03/13	
Thiobencarb	0.56	1.0	ug/L	0.50	ND	114	70-130			12/03/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.6			5.0		92	70-130			12/03/13	

EPA 531.1 - Quality Control

Batch: A314122

Prepared: 11/26/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A314122-BLK1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A314122

Prepared: 11/26/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A314122-BLK1)

3-Hydroxycarbofuran	ND	3.0	ug/L							11/26/13	
Aldicarb	ND	3.0	ug/L							11/26/13	
Aldicarb Sulfone	ND	2.0	ug/L							11/26/13	
Aldicarb Sulfoxide	ND	3.0	ug/L							11/26/13	
Carbaryl	ND	5.0	ug/L							11/26/13	
Carbofuran	ND	5.0	ug/L							11/26/13	
Methomyl	ND	2.0	ug/L							11/26/13	
Oxamyl	ND	20	ug/L							11/26/13	

Blank Spike (A314122-BS1)

3-Hydroxycarbofuran	4.0	3.0	ug/L	4.2		97	80-120			11/26/13	
Aldicarb	4.5	3.0	ug/L	4.2		108	80-120			11/26/13	
Aldicarb Sulfone	4.4	2.0	ug/L	4.2		106	80-120			11/26/13	
Aldicarb Sulfoxide	4.5	3.0	ug/L	4.2		109	80-120			11/26/13	
Carbaryl	4.2	5.0	ug/L	4.2		102	80-120			11/26/13	
Carbofuran	4.5	5.0	ug/L	4.2		109	80-120			11/26/13	
Methomyl	4.5	2.0	ug/L	4.2		109	80-120			11/26/13	
Oxamyl	4.5	20	ug/L	4.2		107	80-120			11/26/13	

Blank Spike Dup (A314122-BSD1)

3-Hydroxycarbofuran	4.3	3.0	ug/L	4.2		104	80-120	7	20	11/26/13	
Aldicarb	4.5	3.0	ug/L	4.2		107	80-120	1	20	11/26/13	
Aldicarb Sulfone	4.3	2.0	ug/L	4.2		104	80-120	2	20	11/26/13	
Aldicarb Sulfoxide	4.4	3.0	ug/L	4.2		105	80-120	4	20	11/26/13	
Carbaryl	4.3	5.0	ug/L	4.2		103	80-120	2	20	11/26/13	
Carbofuran	4.5	5.0	ug/L	4.2		107	80-120	2	20	11/26/13	
Methomyl	4.6	2.0	ug/L	4.2		110	80-120	1	20	11/26/13	
Oxamyl	4.4	20	ug/L	4.2		106	80-120	1	20	11/26/13	

Matrix Spike (A314122-MS1), Source: A3K1656-01

3-Hydroxycarbofuran	3.8	3.0	ug/L	4.2	ND	92	65-135			11/26/13	
Aldicarb	4.7	3.0	ug/L	4.2	ND	105	65-135			11/26/13	
Aldicarb Sulfone	4.3	2.0	ug/L	4.2	ND	103	65-135			11/26/13	
Aldicarb Sulfoxide	4.3	3.0	ug/L	4.2	ND	104	65-135			11/26/13	
Carbaryl	4.2	5.0	ug/L	4.2	ND	102	65-135			11/26/13	
Carbofuran	4.3	5.0	ug/L	4.2	ND	97	65-135			11/26/13	
Methomyl	4.4	2.0	ug/L	4.2	ND	100	65-135			11/26/13	
Oxamyl	4.4	20	ug/L	4.2	ND	104	65-135			11/26/13	

EPA 547 - Quality Control

Batch: A314204

Prepared: 12/1/2013

Prep Method: EPA 547

Analyst: RJB

Blank (A314204-BLK1)

Glyphosate	ND	25	ug/L							12/01/13	
Surrogate: AMPA	100			100		103	70-130			12/01/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 547 - Quality Control

Batch: A314204

Prepared: 12/1/2013

Prep Method: EPA 547

Analyst: RJB

Blank Spike (A314204-BS1)

Glyphosate	100	25	ug/L	100		100	70-130			12/01/13	
Surrogate: AMPA	100			100		104	70-130			12/01/13	

Blank Spike Dup (A314204-BSD1)

Glyphosate	110	25	ug/L	100		106	70-130	6	30	12/01/13	
Surrogate: AMPA	100			100		102	70-130			12/01/13	

Matrix Spike (A314204-MS1), Source: A3K1910-01

Glyphosate	100	25	ug/L	100	ND	100	70-130			12/01/13	
Surrogate: AMPA	100			100		98	70-130			12/01/13	

EPA 548.1 - Quality Control

Batch: A314043

Prepared: 11/27/2013

Prep Method: EPA 548.1

Analyst: KHH

Blank (A314043-BLK1)

Endothall	ND	45	ug/L							11/29/13	
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Blank Spike (A314043-BS1)

Endothall	12	45	ug/L	20		61	60-111			11/29/13	
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Blank Spike Dup (A314043-BSD1)

Endothall	22	45	ug/L	20		108	60-111	55	46	11/29/13	BS3.0
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Matrix Spike (A314043-MS1), Source: A3K1568-06

Endothall	ND	45	ug/L	20	ND	0	10-122			11/29/13	MS1.0 Low
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EPA 549.2 - Quality Control

Batch: A314169

Prepared: 11/27/2013

Prep Method: EPA 549.2

Analyst: PYA

Blank (A314169-BLK1)

Diquat	ND	4.0	ug/L							12/03/13	
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Blank Spike (A314169-BS1)

Diquat	3.4	4.0	ug/L	4.0		85	70-130			12/03/13	
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Blank Spike Dup (A314169-BSD1)

Diquat	3.4	4.0	ug/L	4.0		86	70-130	1	30	12/03/13	
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Matrix Spike (A314169-MS1), Source: A3K1719-01

Diquat	3.4	4.0	ug/L	4.0	ND	84	70-130			12/03/13	
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Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of California - ELAP	1180	State of Nevada	CA000792009A
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA
State of California - NELAP	04227CA	State of Oregon	4017
State of Washington	C997	State of Oregon - NWTTPH	4021

BSK is not accredited under the NELAC program for the following parameters:

Boron	Silica (SiO ₂)	Strontium
Threshold Odor		

A3K1920



California American Water

Calif3295



11262013

Turnaround: Standard
Due Date: 12/12/2013



*Required Fields

Temp: 22

Company/Client Name*: California American Water		Report Attention*: Travis Peterson Additional cc's: Sarp Sekeroglu, RBF Consulting		Invoice To*: Accounts Payable PO#:		Phone*: (831) 646-3295/(831) 646-3269		Fax*: (831) 333-1343	
Address*: PO Box 951		City*: Monterey		State*: CA		Zip*: 93942-0951		E-mail*: susan.jacobson@amwater.com, travis.peterson@amwater.com	

Project: Water Quality Analysis		Project #:		Regulatory Carbon Copies CDPH <input type="checkbox"/> Fresno Co Merced Co <input type="checkbox"/> Tulare Co Madera Co <input type="checkbox"/> Other: _____	
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Reporting Options: <input type="checkbox"/> Trace (J-Flag) <input type="checkbox"/> Swamp <input type="checkbox"/> EDD Type: _____		How would you like your completed results sent?*		Regulatory Compliance	
Sampler Name (Printed/Signature)*: <i>Nathan Reynolds</i>		TAT* <input checked="" type="checkbox"/> Standard - 10 Business Days <input type="checkbox"/> **Rush: Date Needed _____		<input type="checkbox"/> EDT to California DPH <input type="checkbox"/> System Number: _____ <input type="checkbox"/> Geotracker #: _____	

#	Sample Description*	Sampled*		Matrix*	Comments / Station Code / WTRAX	Alkalinity, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC	Mass Balance-Dissolved: Cations and Anions	Dissolved Metals: Ba, B, Ca, Fe, Mg, Mn, K, Na, Sr, silica	Total Metals: Al, As, Cu, Fe, Mn, Zn	Dissolved: Bromide, Chloride, Nitrite, Fluoride, Sulfate, Orthophosphate-P	Dissolved: Ammonia, TKN, Phosphorus	Nitrate/Nitrite as N, Nitrate-NO3	EPA 524, 504, 505, 515, 525, 531, 547, 548, 549	EXT-Tritium, EXT-Lithium, EXT-Dissolved Iodide, EXT-Dioxin
		Date	Time											
27	MPWSP ML-6 Zone #1 (152-162 ft deep)	11-22-13	13:35	water	Seawater salinity levels. Lab to filter dissolved metals. Lab to filter Diss. Ammonia, TKN, P Okay to analyze out of hold time.	X	X	X	X	X	X	X	X	X

field parameters: Temp = 16.5 °C
 pH = 6.63
 TDS = 31,284.5 mg/L
 Turb = 1.26 NTU

Relinquished by: (Signature and Printed Name) <i>Nathan Reynolds</i>	Company GEOINTENCE	Date 11/25	Time 8:45 AM	Received by: (Signature and Printed Name) <i>Shelley Jeger</i>	Company RBF Consulting
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Received for Lab by: (Signature and Printed Name) <i>Lafay Cobb</i>	Date 11/25/13	Time 11:30	Payment Received at Delivery: Date: _____ Amount: _____ PIA#: _____ Init: _____	Check / Cash
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Shipping Method <input checked="" type="checkbox"/> ONTRAC <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> WALK-IN <input type="checkbox"/> FED EX Courier: _____	Custody Seal: <i>YN</i>	Chilling Process Begun: <i>Y/N</i>
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Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agree to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf

bw

Sample Integrity

BSK Bottles: Yes No Page 1 of 1



COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$			Were correct containers and preservatives received for the tests requested?			
		<u>Yes</u>	No	NA	<u>Yes</u>	No	NA
COC Info	If samples were taken today, is there evidence that chilling has begun?			Were there bubbles in the VOA vials? (Volatiles Only)			
	<u>Yes</u>	No	NA	<u>Yes</u>	No	NA	
	Did all bottles arrive unbroken and intact?			Was a sufficient amount of sample received?			
	<u>Yes</u>	No		<u>Yes</u>	No		
	Did all bottle labels agree with COC?			Do samples have a hold time <72 hours?			
<u>Yes</u>	No		<u>Yes</u>	No			
COC Info	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?			Was PM notified of discrepancies? PM: _____ By/Time: _____			
	<u>Yes</u>	No	NA	<u>Yes</u>	No	NA	
Bottles Received <small>"—" means preservation/chlorine checks are either N/A or are performed in the lab</small>	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?				
	Bacti $\text{Na}_2\text{S}_2\text{O}_3$	—	—				
	None (P) <small>White Cap</small>	—	—				
	Cr6 Buffer (P) <small>Blue Cap</small>	pH 9-9.5	Y	N			
	HNO_3 (P) <small>Red Cap</small>	—	—				
	H_2SO_4 (P) <small>Yellow Cap</small>	pH ≤ 2	<u>Y</u>	N			
	NaOH (P) <small>Green Cap</small>	Cl, pH ≥ 12	Y	N			
	NaOH + ZnAc (P)	pH ≥ 9	Y	N			
	Dissolved Oxygen 300ml (g)	—	—				
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—				
	H_2SO_4 (AG) <small>Yellow Label</small> O&G, Diesel	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) <small>Blue Label</small> 547, 515, 525, 548	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) <small>Blue Label</small> THMs 524.2 or 524.3	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) <small>Blue Label</small> 504, 505	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) <small>Orange Label</small> 531	pH = 3	<u>Y</u>	N			
	NH_4Cl (AG) <small>Purple Label</small> 552	—	—				
	EDA (AG) <small>Brown Label</small> DBPs	—	—				
	Ascorbic + Maleic (AG) <small>Lt Green Label</small> 524.3	—	—				
	HCL (CG) 524.2; BTEX, Gas, MTBE, 8260/624	—	—				
	Buffer pH 4 (CG)	—	—				
	None (CG)	—	—				
	H_3PO_4 (CG) <small>Salmon Label</small>	—	—				
	Other:						
	Asbestos 1Liter Plastic w/ Foil	—	—				
	Low Level Hg / Metals Double Baggie	—	—				
	Bottled Water	—	—				
	Clear Glass Jar: 250 / 500 / 1 Liter	—	—				
Soil Tube Brass / Steel / Plastic	—	—					
Tedlar Bag / Plastic Bag	—	—					
Split	Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials	
	S P			S P			
	S P			S P			
Comments							

Labeled by: NR @ 16/11

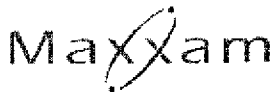
Labels checked by: G-1083 E4 @ 6/12

External



A3K1920





Your Project #: A3K1920
 Your C.O.C. #: na, 3

Attention: Michael Ng
 BSK Analytical Laboratories
 1414 Stanislaus Street
 Fresno, CA
 USA 93706

Report Date: 2013/12/11

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B3K9585
 Received: 2013/12/04, 13:00
 Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
2,3,7,8-TCDD in Water (1613B)	1	2013/12/07	2013/12/10	BRL SOP-00410	EPA 1613B mod.

Remarks:

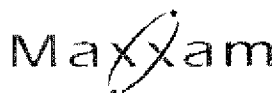
The lab certifies that the test results meet all requirements of NELAC, where applicable.
 * RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
 U = Undetected at the limit of quantitation.
 J = Estimated concentration between the EDL & RDL.
 B = Blank Contamination.
 Q = One or more quality control criteria failed.

Encryption Key

Ivana Vukovic
 12 Dec 2013 14:19:48 -05:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
 Ivana Vukovic, Env Project Manager
 Email: IVukovic@maxxam.ca
 Phone# (905) 817-5700

 This report has been generated and distributed using a secure automated process.
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.
 Maxxam Analytics Inc. is a NELAC accredited laboratory. Certificate # CANA001. Use of the NELAC logo however does not insure that Maxxam is accredited for all of the methods indicated. This certificate shall not be reproduced except in full, without the written approval of Maxxam Analytics Inc.

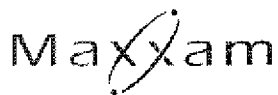


Maxxam Job #: B3K9585
Report Date: 2013/12/11

BSK Analytical Laboratories
Client Project #: A3K1920

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UD8443						
Sampling Date		2013/11/22 13:35						
COC Number		3	TOXIC EQUIVALENCY				# of	
	Units	A3K1920-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Dioxins & Furans								
2,3,7,8-Tetra CDD *	pg/L	0.98 U	0.98	4.1	1.00	0.980		3452001
TOTAL TOXIC EQUIVALENCY	pg/L					0.980		
Surrogate Recovery (%)								
37CL4 2378 Tetra CDD *	%	76						3452001
C13-2378 TetraCDD *	%	86						3452001
EDL = Estimated Detection Limit RDL = Reportable Detection Limit TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds QC Batch = Quality Control Batch * CDD = Chloro Dibenzo-p-Dioxin								



Maxxam Job #: B3K9585
Report Date: 2013/12/11

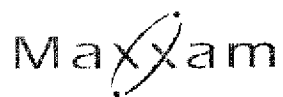
BSK Analytical Laboratories
Client Project #: A3K1920

TEST SUMMARY

Maxxam ID: UD8443
Sample ID: A3K1920-01
Matrix: Water

Collected: 2013/11/22
Shipped:
Received: 2013/12/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
2,3,7,8-TCDD in Water (1613B)	HRMS/MS	3452001	2013/12/07	2013/12/10	Vica Gioranic

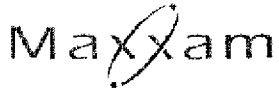


Maxxam Job #: B3K9585
Report Date: 2013/12/11

BSK Analytical Laboratories
Client Project #: A3K1920

GENERAL COMMENTS

Results relate only to the items tested.



Maxxam Job #: B3K9585
Report Date: 2013/12/11

BSK Analytical Laboratories
Client Project #: A3K1920

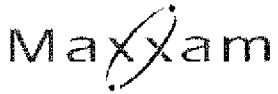
QUALITY ASSURANCE REPORT

QA/QC				Date		%		
Batch	Init	QC Type	Parameter	Analyzed	Value	Recovery	Units	QC Limits
3452001	VCI	Spiked Blank	2,3,7,8-Tetra CDD	2013/12/10		83	%	67 - 158
	VCI	Spiked Blank	37CL4 2378 Tetra CDD	2013/12/10		71	%	40 - 130
			C13-2378 TetraCDD	2013/12/10		90	%	24 - 164
		Method Blank	2,3,7,8-Tetra CDD	2013/12/10	0.92, EDL=0.92		pg/L	
			37CL4 2378 Tetra CDD	2013/12/10		80	%	40 - 130
			C13-2378 TetraCDD	2013/12/10		81	%	24 - 164

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



Maxxam Job #: B3K9585
Report Date: 2013/12/11

BSK Analytical Laboratories
Client Project #: A3K1920

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Owen Cosby, BSc.C.Chem, Supervisor, HRMS Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(I), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.



SUBCONTRACT ORDER
A3K1920

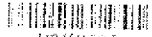
4-Dec-13 13:00

SENDING LABORATORY:

BSK Associates
1414 Sandbar St
Fresno, CA 93705
Phone: (559) 437-2348
Fax: (559) 445-8935
Project Manager: Tomasz Ny
E-mail: tny@bskinc.com

RECEIVING LABORATORY:

Maxam Analytics
PO Box 57407, Station A
Toronto, ON M5W 5M5
Phone: (905) 617-5764
Fax: -
Toronto (Dues): Standard 7
ON Delivery: Standard 1.4

Ivana Vukovic

BSK9585
M.P. ENV170v

Sample ID	Sample Desc	Sample Date
A3K1920-01	MHA/SP Multi-Zone #1 (152, 152 n pas)	11/27/2013 13:55

Matrix: Water

Analysis: *10 n pas w/stand*
EPA 1600-DV1 matrix, EPA 813.2, 817, 816, 818

[Handwritten signature]

Released By	Date	Received By	Date
		<i>[Signature]</i>	12/03/13

Page 1 of 3

50, 4.8, 8.3%
50, 5.2, 4.9%



Certificate of Analysis

Report Date: 12/17/13 11:10
Received Date: 12/03/13 12:30
Turnaround Time: Normal

Project: A3K1920

Phones: (559) 497-2888
Fax: (559) 485-6935

P.O. #:

Attn: Michael Ng

Client: BSK Analytical Laboratories
 550 West Locust Avenue
 Fresno, CA 93650

Dear Michael Ng :

Enclosed are the results of analyses for samples received 12/3/2013 with the Chain of Custody document. The samples were received in good condition, at 3.0 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers

Lab Sample ID: 3L03045-01	Sample ID: A3K1920-01	Matrix: Water								
Sampled by: Client	Sampled: 11/22/13 13:35									
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Lithium, Total	390		10	ug/l	1	EPA 200.7	12/10/13	12/11/13 13:01	W3L0516	
Iodide, Dissolved	620		250	ug/l	25	EPA 9056A	12/12/13	12/12/13 22:54	W3L0678	



Certificate of Analysis
Quality Control Section

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

Batch W3L0678 - EPA 9056A

Blank (W3L0678-BLK1)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Iodide, Dissolved		ND		ug/l						
LCS (W3L0678-BS1)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Iodide, Dissolved		38.9		ug/l	40.0	97	85-115			
Duplicate (W3L0678-DUP1)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Source: 3L03045-01					Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Analyte	Sample Result	QC Result	Qualifier	Units						
Iodide, Dissolved	623	661		ug/l				6	20	
Duplicate (W3L0678-DUP2)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Source: 3L03048-01					Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Analyte	Sample Result	QC Result	Qualifier	Units						
Iodide, Dissolved	378	336		ug/l				12	20	
Duplicate (W3L0678-DUP3)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Source: 3L10011-01					Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Analyte	Sample Result	QC Result	Qualifier	Units						
Iodide, Dissolved	644	658		ug/l				2	20	
Matrix Spike (W3L0678-MS1)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Source: 3L10011-01					Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Analyte	Sample Result	QC Result	Qualifier	Units						
Iodide, Dissolved	644	1100		ug/l	500	92	80-120			
Matrix Spike Dup (W3L0678-MSD1)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Source: 3L10011-01					Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Analyte	Sample Result	QC Result	Qualifier	Units						
Iodide, Dissolved	644	1100		ug/l	500	92	80-120	0.2	20	

Metals by EPA 200 Series Methods - Quality Control

Batch W3L0516 - EPA 200.7

Blank (W3L0516-BLK1)					Prepared: 12/10/13	Analyzed: 12/11/13 12:56				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Lithium, Total		ND		ug/l						
LCS (W3L0516-BS1)					Prepared: 12/10/13	Analyzed: 12/11/13 12:59				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Lithium, Total		965		ug/l	1000	97	85-115			
Matrix Spike (W3L0516-MS1)					Prepared: 12/10/13	Analyzed: 12/11/13 13:29				
Source: 3L10044-04					Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Analyte	Sample Result	QC Result	Qualifier	Units						
Lithium, Total	37.3	1020		ug/l	1000	98	70-130			
Matrix Spike Dup (W3L0516-MSD1)					Prepared: 12/10/13	Analyzed: 12/11/13 13:32				
Source: 3L10044-04					Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Analyte	Sample Result	QC Result	Qualifier	Units						
Lithium, Total	37.3	995		ug/l	1000	96	70-130	2	30	

3L03045

Page 2 of 3

This report contains information that is confidential and intended only for the individual or entity named herein. It is not to be distributed outside the named individual or entity. If you have received this report in error, please notify the analyst immediately. Weck Laboratories, Inc. www.wecklab.com



Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Kim Tu

Authorized Signature

Contact: Kim G Tu (Project Manager)



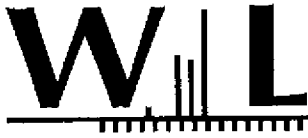
ELAP # 1132
LACSD # 10143
NELAC # 04229CA



The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

- ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
- Sub Subcontracted analysis, original report enclosed.
- DL Method Detection Limit
- RL Method Reporting Limit
- MDA Minimum Detectable Activity
- NR Not Reportable



Weck Laboratories, Inc.

Environmental and Analytical Services - Since 1964

Sample Receipt Acknowledgement

WORK ORDER: 3L03045

Printed: 12/4/2013 2:25:29PM

Client: BSK Analytical Laboratories
Project: MetalsProject Manager: Kim G Tu
Project Number: A3K1920**Report To:**BSK Analytical Laboratories
Michael Ng
550 West Locust Avenue
Fresno, CA 93650
Phone: (559) 497-2888
Fax: (559) 485-6935**Invoice To:**BSK Analytical Laboratories
Accounts Payable - Anise Foote
550 West Locust Avenue
Fresno, CA 93650
Phone: (559) 497-2888
Fax: (559) 485-6935**Date Due:** 12/17/13 15:00 (10 day TAT)

Received By: Jaime Gomez

Date Received: 12/03/13 12:30

Logged In By: Jaime Gomez

Date Logged In: 12/03/13 14:52

Samples Received at:	3°C	All containers intact:	Yes	Chain of custody completed	Yes
Number of Ice chests/packages:		Custody seals present:		Sample labels & COC agree	Yes
Appropriate Sample Containers:		Custody seals intact:		Samples preserved properly	Yes
		Samples received on ice		Sample volume sufficient	Yes
		Custody Seals	No	Sufficient holding time for all tests	Yes

Analysis	TAT	Expires	Comments
----------	-----	---------	----------

3L03045-01 A3K1920-01 [Water] Sampled 11/22/13 13:35 Pacific

Iodide water 9056M_Diss 10 12/20/13 13:35

200.7 Li 10 05/21/14 13:35

Comments:

12/4/2013

Authorized Signature

Date

Note:

If any of the information included in this sample receipt acknowledgement is incorrect (sample information, analysis, etc), please contact the lab at (626) 336-2139. Thank you.

January 06, 2014

Mr. Michael Ng
BSK Analytical Laboratories
1414 Stanislaus St.
Fresno, CA 93706

RE: Project: A3K1920
Pace Project No.: 30109474

Dear Mr. Ng:

Enclosed are the analytical results for sample(s) received by the laboratory on December 12, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins

jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

CERTIFICATIONS

Project: A3K1920
Pace Project No.: 30109474

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
ACCLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana/TNI Certification #: LA080002
Louisiana/TNI Certification #: 4086
Maine Certification #: PA0091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: ANTE
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia Certification #: 143
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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Page 2 of 11

SAMPLE SUMMARY

Project: A3K1920
Pace Project No.: 30109474

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30109474001	A3K1920-01	Water	11/22/13 13:35	12/12/13 10:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: A3K1920
Pace Project No.: 30109474

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30109474001	A3K1920-01	EPA 906.0	SLA	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: A3K1920
Pace Project No: 30109474

Method: EPA 906.0
Description: 906.0 Tritium
Client: BSK Analytical Laboratories
Date: January 06, 2014

General Information:

1 sample was analyzed for EPA 906.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: A3K1920
Pace Project No.: 30109474

Sample: A3K1920-01		Lab ID: 30109474001	Collected: 11/22/13 13:35	Received: 12/12/13 10:50	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Tritium	EPA 906.0	10.3 ± 129 (226)	pCi/L	12/21/13 11:19	10028-17-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: A3K1920
Pace Project No.: 30109474

QC Batch:	RADC/18120	Analysis Method:	EPA 906.0
QC Batch Method:	EPA 906.0	Analysis Description:	906.0 Tritium
Associated Lab Samples:	30109474001		

METHOD BLANK:	671627	Matrix:	Water
Associated Lab Samples:	30109474001		

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Tritium	-43.1 ± 116 (211)	pCi/L	12/21/13 09:16	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: A3K1920
Pace Project No.: 30109474

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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Date: 01/06/2014 12:02 PM

Page 8 of 11



SUBCONTRACT ORDER
A3K1920

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical-Radiochem
1638 Roseytown Rd Ste 2,3,4
Greensburg, PA 15601
Phone: (724) 850-5600
Fax: (724) 722-5208
Turnaround (Days): ~~Standard~~
QC Deliverables: I ~~Std~~ III IV

30109474

Sample ID	Samp Desc	Sample Date
A3K1920-01	MPWSP ML-6 Zone #1 (152-162 ft bgs)	11/22/2013 13:35

001

Matrix: Water

Analysis 250 ml. AC w/ H₂O:
EXT-Tritium

Non preserved glass container

Released By [Signature] Date 12/5/13 Received By [Signature] Date 12-12-13

Released By _____ Date _____ Received By _____ Date _____

Sample Condition Upon Receipt



Client Name: BSK

Project # 30109474

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 1Z 93Y 921 6361 57 4770

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: yes no Seals Intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other Styrofoam, Plastic Bag

Thermometer Used 5 6 7 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature MA

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: PAC 12-14-13

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <u>sample is unpreserved</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: <u>PAC</u> Lot # of added preservative:
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y N

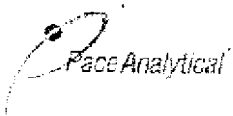
Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 12/14/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Project Number: 301094 74
 Client Name: BSE

Item No.	Matrix Code	Item Description
001	WT	Glass Jar (120 / 250 / 600 / 1L)
		Soil kit (2 SB, 1M, soil jar)
		Chemistry (250 / 500 / 1L)
		Organics (1L)
		Nutrient (250 / 500)
		Phenolics (250 ml)
		TOC (40 ml / 250 ml)
		TOX (250 ml)
		Total Metals
		Dissoved Metals preserved Y
		N
		O & G (1L)
		TPH (1L)
		VOA (40 ml / 30 ml)
		Cyanide (250 ml)
		Sulfide (500 ml)
		Bacteria (120 ml)
		Wipes / swipe/ smear/ filter
		Radchem Nalgene (125 / 250 / 500)
		Radchem Nalgene (1/2 gal / 1 gallon)
		Substrainer (500 ml / 4L)
		Ziploc
		Other
		Other

12-1-13



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Travis Peterson
California American Water
836 Carmel Ave.
Monterey, CA 93940

RE: Report for A3K1910 Water Quality Analysis

Dear Travis Peterson,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 11/26/2013. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Michael Ng, Project Manager

If additional clarification of any information is required, please contact your Project Manager, Michael Ng, at (800) 877-8310 or (559) 497-2888 x118.



Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: California American Water
Report To: Travis Peterson
Project #: Water Quality Analysis
Received: 11/26/2013 - 10:30
Report Due: 12/12/2013

Invoice To: California American Water
Invoice Attn: Accounts Payable
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 0.7	COC/Labels Agree
	Received On Wet Ice
	Packing Material - Bubble Wrap
	Sample(s) were received in temperature range.
	Initial receipt at BSK-SAC

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- B2.0 Analyte present in the method blank above the method detection limit (MDL). Laboratory does not determine batch acceptance on detections below the reporting limit (RL).
- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- BS3.0 BS/BSD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
- BS4.0 BS/BSD RPD exceeded the method acceptance limit as one of the blank spikes recovered outside limits.
- CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this parameter.
- DL1.0 Sample required a dilution due to the matrix or high concentration of a non-target analyte.
- HT1.0 Holding time exceeded. Sample was received at the lab past holding time.
- HT1.6 Holding time exceeded. The holding time for this analysis is a recommendation and is not mandated by any state or federal agency.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- X.0 BS/BSD RPD is outside of acceptance limits

Report Distribution

Recipient(s)	Report Format
Travis Peterson	Final.rpt
Sarp Sekeroglu	Final.rpt

Certificate of Analysis

Sample ID: A3K1910-01

Sampled By: Nathan Reynolds

Sample Description: MPWSP ML-6 Zone #2 (100-110 ft bgs)

Sample Date - Time: 11/23/13 - 13:00

Matrix: Water

Sample Type: Grab

Field Data: pH=6.58 Temp=15.9 °C Turb. =1.73 ntu

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Alkalinity as CaCO3	SM 2320 B	410	3.0	mg/L	1	A314132	11/26/13	11/26/13	
Bicarbonate as CaCO3	SM 2320 B	410	3.0	mg/L	1	A314132	11/26/13	11/26/13	
Carbonate as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A314132	11/26/13	11/26/13	
Hydroxide as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A314132	11/26/13	11/26/13	
Ammonia as N	SM 4500-NH3 G	1.9	0.10	mg/L	1	A314346	12/04/13	12/09/13	
Bromide	EPA 300.1	59	1.2	mg/L	250	A314117	11/26/13	11/26/13	
Surrogate: Dichloroacetate	EPA 300.1	105 %	<i>Acceptable range: 90-115 %</i>						
Chloride	EPA 300.0	16000	200	mg/L	200	A314134	11/26/13	11/26/13	
Color, Apparent	SM 2120 B	10	1.0	CU	1	A314113	11/26/13 18:58	11/26/13	HT1.0
Conductivity @ 25C	SM 2510 B	38000	1.0	umhos/cm	1	A314132	11/26/13	11/26/13	
Fluoride	EPA 300.0	ND	2.0	mg/L	20	A314220	11/27/13	11/27/13	DL1.0
Mass Balance-Anions		500		meq/L					
Mass Balance-Dissolved Cations		480		meq/L					
MBAS, Calculated as LAS, mol wt 340	SM 5540 C	ND	0.050	mg/L	1	A314153	11/27/13 15:20	11/27/13	HT1.0
Nitrate as NO3	EPA 300.0	ND	200	mg/L	200	A314134	11/26/13 23:04	11/26/13	DL1.0
Nitrite as N	EPA 300.0	ND	10	mg/L	200	A314134	11/26/13 23:04	11/26/13	DL1.0, HT1.0
Threshold Odor	SM 2150 B	ND	1.0	T.O.N.	1	A314113	11/26/13 18:58	11/26/13	HT1.6
Orthophosphate as P	SM 4500-P E	0.14	0.010	mg/L	1	A314203	11/27/13 18:38	11/27/13	HT1.0
pH (1)	SM 4500-H+ B	7.4		pH Units	1	A314132	11/26/13	11/26/13	
pH Temperature in °C		21.0							
Phosphorus - Dissolved (1)	EPA 365.4	0.12	0.10	mg/L	1	A314666	12/11/13	12/12/13	
Sulfate as SO4	EPA 300.0	1900	400	mg/L	200	A314134	11/26/13	11/26/13	
Total Dissolved Solids	SM 2540C	28000	5.0	mg/L	1	A314178	11/27/13	12/02/13	
Total Kjeldahl Nitrogen - Dissolved (1)	EPA 351.2	2.3	1.0	mg/L	1	A314282	12/03/13	12/05/13	
Total Oxidizable Nitrogen, as N - Dissolved (1)	SM 4500-NO3 F	ND	0.10	mg/L	1	A314432	12/05/13	12/05/13	
Turbidity	SM 2130 B	1.6	0.10	NTU	1	A314113	11/26/13 18:58	11/26/13	HT1.0

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.7	ND	0.050	mg/L	1	A314146	11/26/13	12/04/13	
Arsenic	EPA 200.8	4.3	4.0	ug/L	2	A314146	11/26/13	12/02/13	
Barium - Dissolved (1)	EPA 200.7	0.089	0.050	mg/L	1	A314514	12/06/13	12/10/13	
Boron - Dissolved (1)	EPA 200.7	3.3	0.10	mg/L	1	A314514	12/06/13	12/10/13	
Calcium	EPA 200.7	580	0.10	mg/L	1	A314146	11/26/13	12/04/13	
Calcium - Dissolved (1)	EPA 200.7	600	0.10	mg/L	1	A314514	12/06/13	12/10/13	
Copper	EPA 200.8	58	10	ug/L	2	A314146	11/26/13	12/02/13	
Hardness as CaCO3	SM 2340B	6000	0.41	mg/L					
Iron	EPA 200.7	0.56	0.030	mg/L	1	A314146	11/26/13	12/04/13	
Iron - Dissolved (1)	EPA 200.7	ND	0.030	mg/L	1	A314514	12/06/13	12/10/13	

Certificate of Analysis

Sample ID: A3K1910-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-6 Zone #2 (100-110 ft bgs)

Sample Date - Time: 11/23/13 - 13:00

Matrix: Water

Sample Type: Grab

Field Data: pH=6.58 Temp=15.9 °C Turb. =1.73 ntu

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Magnesium	EPA 200.7	1100	0.10	mg/L	1	A314146	11/26/13	12/04/13	
Magnesium - Dissolved (1)	EPA 200.7	1100	0.10	mg/L	1	A314514	12/06/13	12/10/13	
Manganese	EPA 200.7	3.5	0.010	mg/L	1	A314146	11/26/13	12/04/13	
Manganese - Dissolved (1)	EPA 200.7	3.6	0.010	mg/L	1	A314514	12/06/13	12/10/13	
Potassium - Dissolved (1)	EPA 200.7	270	2.0	mg/L	1	A314514	12/06/13	12/10/13	
Silica (SiO ₂) - Dissolved (1)	EPA 200.7	32	0.20	mg/L	1	A314514	12/06/13	12/10/13	
Sodium - Dissolved (1)	EPA 200.7	8100	20	mg/L	20	A314514	12/06/13	12/10/13	
Strontium - Dissolved (1)	EPA 200.8	10000	10	ug/L	10	A314514	12/06/13	12/10/13	
Zinc	EPA 200.7	ND	0.050	mg/L	1	A314146	11/26/13	12/04/13	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A314194	11/27/13	11/28/13	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A314194	11/27/13	11/28/13	
Surrogate: TCMX	EPA 504.1	103 %	<i>Acceptable range: 70-130 %</i>						
<u>Organohalide Pesticides and PCBs by GC-ECD</u>									
Aldrin	EPA 505	ND	0.075	ug/L	1	A314194	11/27/13	11/28/13	
Chlordane	EPA 505	ND	0.10	ug/L	1	A314194	11/27/13	11/28/13	
Chlorothalonil	EPA 505	ND	5.0	ug/L	1	A314194	11/27/13	11/28/13	
Dieldrin	EPA 505	ND	0.020	ug/L	1	A314194	11/27/13	11/28/13	
Endrin	EPA 505	ND	0.10	ug/L	1	A314194	11/27/13	11/28/13	
Heptachlor	EPA 505	ND	0.010	ug/L	1	A314194	11/27/13	11/28/13	
Heptachlor Epoxide	EPA 505	ND	0.010	ug/L	1	A314194	11/27/13	11/28/13	
Hexachlorobenzene	EPA 505	ND	0.50	ug/L	1	A314194	11/27/13	11/28/13	
Hexachlorocyclopentadiene	EPA 505	ND	1.0	ug/L	1	A314194	11/27/13	11/28/13	
Lindane	EPA 505	ND	0.20	ug/L	1	A314194	11/27/13	11/28/13	
Methoxychlor	EPA 505	ND	10	ug/L	1	A314194	11/27/13	11/28/13	
PCB Aroclor Screen	EPA 505	ND	0.50	ug/L	1	A314194	11/27/13	11/28/13	
Toxaphene	EPA 505	ND	1.0	ug/L	1	A314194	11/27/13	11/28/13	
Trifluralin	EPA 505	ND	1.0	ug/L	1	A314194	11/27/13	11/28/13	
Surrogate: TCMX	EPA 505	103 %	<i>Acceptable range: 70-130 %</i>						
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A314421	12/05/13	12/08/13	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A314421	12/05/13	12/08/13	
2,4-D	EPA 515.3	ND	10	ug/L	1	A314421	12/05/13	12/08/13	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A314421	12/05/13	12/08/13	
Dalapon	EPA 515.3	ND	10	ug/L	1	A314421	12/05/13	12/08/13	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A314421	12/05/13	12/08/13	

Certificate of Analysis

Sample ID: A3K1910-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-6 Zone #2 (100-110 ft bgs)

Sample Date - Time: 11/23/13 - 13:00
Matrix: Water
Sample Type: Grab

Field Data: pH=6.58 Temp=15.9 °C Turb. =1.73 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chlorinated Acid Herbicides by GC-ECD									
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A314421	12/05/13	12/08/13	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A314421	12/05/13	12/08/13	
Picloram	EPA 515.3	ND	1.0	ug/L	1	A314421	12/05/13	12/08/13	
Surrogate: DCPAA	EPA 515.3	80 %	<i>Acceptable range: 70-130 %</i>						
Volatile Organics by GC-MS									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A314277	12/03/13	12/04/13	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A314277	12/03/13	12/04/13	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A314277	12/03/13	12/04/13	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A314277	12/03/13	12/04/13	
Acetone	EPA 524.2	ND	10	ug/L	1	A314277	12/03/13	12/04/13	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	

Certificate of Analysis

Sample ID: A3K1910-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-6 Zone #2 (100-110 ft bgs)

Sample Date - Time: 11/23/13 - 13:00
Matrix: Water
Sample Type: Grab

Field Data: pH=6.58 Temp=15.9 °C Turb. =1.73 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Volatile Organics by GC-MS</u>									
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A314277	12/03/13	12/04/13	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	BS1.0
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A314277	12/03/13	12/04/13	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A314277	12/03/13	12/04/13	BS1.0, CV0.0
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A314277	12/03/13	12/04/13	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A314277	12/03/13	12/04/13	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	96 %	<i>Acceptable range: 70-130 %</i>						
Surrogate: Bromofluorobenzene	EPA 524.2	106 %	<i>Acceptable range: 70-130 %</i>						
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
<u>Semi-Volatile Organics by GC-MS</u>									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A314276	12/03/13	12/04/13	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A314276	12/03/13	12/04/13	

Certificate of Analysis

Sample ID: A3K1910-01
Sampled By: Nathan Reynolds
Sample Description: MPWSP ML-6 Zone #2 (100-110 ft bgs)

Sample Date - Time: 11/23/13 - 13:00
Matrix: Water
Sample Type: Grab

Field Data: pH=6.58 Temp=15.9 °C Turb. =1.73 ntu

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Semi-Volatile Organics by GC-MS</u>									
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A314276	12/03/13	12/04/13	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A314276	12/03/13	12/04/13	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A314276	12/03/13	12/04/13	
Bromacil	EPA 525.2	ND	10	ug/L	1	A314276	12/03/13	12/04/13	
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A314276	12/03/13	12/04/13	
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A314276	12/03/13	12/04/13	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A314276	12/03/13	12/04/13	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A314276	12/03/13	12/04/13	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A314276	12/03/13	12/04/13	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A314276	12/03/13	12/04/13	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A314276	12/03/13	12/04/13	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A314276	12/03/13	12/04/13	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A314276	12/03/13	12/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	97 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A314122	11/26/13	11/26/13	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A314122	11/26/13	11/26/13	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A314122	11/26/13	11/26/13	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A314122	11/26/13	11/26/13	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A314122	11/26/13	11/26/13	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A314122	11/26/13	11/26/13	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A314122	11/26/13	11/26/13	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A314122	11/26/13	11/26/13	
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A314204	12/01/13	12/01/13	
Surrogate: AMPA	EPA 547	95 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A314043	11/27/13	11/29/13	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A314169	11/27/13	12/03/13	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A314134

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: EMH

Blank (A314134-BLK1)

Chloride	ND	1.0	mg/L							11/26/13	B2.0
Nitrate as NO3	ND	1.0	mg/L							11/26/13	
Nitrite as N	ND	0.050	mg/L							11/26/13	
Sulfate as SO4	ND	2.0	mg/L							11/26/13	B2.0

Blank Spike (A314134-BS1)

Chloride	51	1.0	mg/L	50		101	90-110			11/26/13	
Nitrate as NO3	51	1.0	mg/L	50		101	90-110			11/26/13	
Nitrite as N	0.53	0.050	mg/L	0.50		105	90-110			11/26/13	
Sulfate as SO4	51	2.0	mg/L	50		103	90-110			11/26/13	

Blank Spike Dup (A314134-BSD1)

Chloride	51	1.0	mg/L	50		102	90-110	1	20	11/26/13	
Nitrate as NO3	51	1.0	mg/L	50		103	90-110	1	20	11/26/13	
Nitrite as N	0.53	0.050	mg/L	0.50		106	90-110	1	20	11/26/13	
Sulfate as SO4	52	2.0	mg/L	50		103	90-110	1	20	11/26/13	

Matrix Spike (A314134-MS1), Source: A3K1880-02

Chloride	110	2.0	mg/L	100	9.2	105	80-120			11/26/13	
Nitrate as NO3	120	2.0	mg/L	100	16	104	80-120			11/26/13	
Nitrite as N	0.98	0.10	mg/L	1.0	ND	98	80-120			11/26/13	
Sulfate as SO4	120	4.0	mg/L	100	17	106	80-120			11/26/13	

Matrix Spike (A314134-MS2), Source: A3K1891-02

Chloride	100	2.0	mg/L	100	ND	102	80-120			11/27/13	
Nitrate as NO3	100	2.0	mg/L	100	ND	101	80-120			11/27/13	
Nitrite as N	0.97	0.10	mg/L	1.0	ND	97	80-120			11/27/13	
Sulfate as SO4	100	4.0	mg/L	100	ND	102	80-120			11/27/13	

Matrix Spike Dup (A314134-MSD1), Source: A3K1880-02

Chloride	110	2.0	mg/L	100	9.2	103	80-120	2	20	11/26/13	
Nitrate as NO3	120	2.0	mg/L	100	16	102	80-120	2	20	11/26/13	
Nitrite as N	1.0	0.10	mg/L	1.0	ND	103	80-120	5	20	11/26/13	
Sulfate as SO4	120	4.0	mg/L	100	17	103	80-120	2	20	11/26/13	

Matrix Spike Dup (A314134-MSD2), Source: A3K1891-02

Chloride	100	2.0	mg/L	100	ND	103	80-120	1	20	11/27/13	
Nitrate as NO3	100	2.0	mg/L	100	ND	103	80-120	1	20	11/27/13	
Nitrite as N	0.99	0.10	mg/L	1.0	ND	99	80-120	1	20	11/27/13	
Sulfate as SO4	100	4.0	mg/L	100	ND	103	80-120	1	20	11/27/13	

EPA 300.0 - Quality Control

Batch: A314220

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314220-BLK1)

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A314220

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314220-BLK1)

Fluoride ND 0.10 mg/L 11/27/13

Blank Spike (A314220-BS1)

Fluoride 0.50 0.10 mg/L 0.50 99 90-110 11/27/13

Blank Spike Dup (A314220-BSD1)

Fluoride 0.49 0.10 mg/L 0.50 99 90-110 1 10 11/27/13

Matrix Spike (A314220-MS1), Source: A3K1732-04

Fluoride 0.98 0.20 mg/L 1.0 ND 88 80-120 11/27/13

Matrix Spike (A314220-MS2), Source: A3K1891-02

Fluoride 1.3 0.20 mg/L 1.0 0.30 99 80-120 11/27/13

Matrix Spike Dup (A314220-MSD1), Source: A3K1732-04

Fluoride 0.99 0.20 mg/L 1.0 ND 89 80-120 1 10 11/27/13

Matrix Spike Dup (A314220-MSD2), Source: A3K1891-02

Fluoride 1.3 0.20 mg/L 1.0 0.30 100 80-120 1 10 11/27/13

EPA 300.1 - Quality Control

Batch: A314117

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314117-BLK1)

Bromide ND 0.0050 mg/L 11/26/13

Surrogate: Dichloroacetate 0.451 0.50 90 90-115 11/26/13

Blank Spike (A314117-BS1)

Bromide 0.18 0.0050 mg/L 0.20 92 85-115 11/26/13

Surrogate: Dichloroacetate 0.465 0.50 93 90-115 11/26/13

Blank Spike Dup (A314117-BSD1)

Bromide 0.18 0.0050 mg/L 0.20 92 85-115 1 10 11/26/13

Surrogate: Dichloroacetate 0.476 0.50 95 90-115 11/26/13

Matrix Spike (A314117-MS1), Source: A3K1815-03

Bromide 1.1 0.050 mg/L 1.0 0.14 95 75-125 11/26/13

Surrogate: Dichloroacetate 5.02 5.0 100 90-115 11/26/13

Matrix Spike Dup (A314117-MSD1), Source: A3K1815-03

Bromide 1.1 0.050 mg/L 1.0 0.14 94 75-125 1 10 11/26/13

Surrogate: Dichloroacetate 5.30 5.0 106 90-115 11/26/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 351.2 - Quality Control

Batch: A314282

Prepared: 12/3/2013

Prep Method: Digestion

Analyst: KKC

Blank (A314282-BLK1)

Total Kjeldahl Nitrogen - Dissolved (1) ND 1.0 mg/L 12/05/13

Blank Spike (A314282-BS1)

Total Kjeldahl Nitrogen - Dissolved (1) 11 1.0 mg/L 10 106 90-110 12/05/13

Blank Spike Dup (A314282-BSD1)

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 102 90-110 4 10 12/05/13

Matrix Spike (A314282-MS1), Source: A3K2014-02

Total Kjeldahl Nitrogen - Dissolved (1) 11 1.0 mg/L 10 ND 109 90-110 12/05/13

Matrix Spike Dup (A314282-MSD1), Source: A3K2014-02

Total Kjeldahl Nitrogen - Dissolved (1) 11 1.0 mg/L 10 ND 106 90-110 3 10 12/05/13

EPA 365.4 - Quality Control

Batch: A314666

Prepared: 12/11/2013

Prep Method: Digestion

Analyst: KKC

Blank (A314666-BLK1)

Phosphorus - Dissolved (1) ND 0.10 mg/L 12/12/13

Blank Spike (A314666-BS1)

Phosphorus - Dissolved (1) 10 0.10 mg/L 10 101 90-110 12/12/13

Blank Spike Dup (A314666-BSD1)

Phosphorus - Dissolved (1) 10 0.10 mg/L 10 103 90-110 2 10 12/12/13

Matrix Spike (A314666-MS1), Source: A3L0659-05

Phosphorus - Dissolved (1) 9.7 0.10 mg/L 10 ND 97 90-110 12/12/13

Matrix Spike Dup (A314666-MSD1), Source: A3L0659-05

Phosphorus - Dissolved (1) 9.4 0.10 mg/L 10 ND 94 90-110 3 10 12/12/13

SM 2120 B - Quality Control

Batch: A314113

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314113-BLK1)

Color, Apparent ND 1.0 CU 11/26/13

Duplicate (A314113-DUP1), Source: A3K1910-01

Color, Apparent 10 1.0 CU 10 0 20 11/26/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2130 B - Quality Control

Batch: A314113

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314113-BLK1)

Turbidity	ND	0.10	NTU							11/26/13	
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Duplicate (A314113-DUP1), Source: A3K1910-01

Turbidity	1.6	0.10	NTU		1.6			4	20	11/26/13	
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SM 2150 B - Quality Control

Batch: A314113

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314113-BLK1)

Threshold Odor	ND	1.0	T.O.N.							11/26/13	
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Duplicate (A314113-DUP1), Source: A3K1910-01

Threshold Odor	ND	1.0	T.O.N.		ND				20	11/26/13	
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SM 2320 B - Quality Control

Batch: A314132

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314132-BLK1)

Alkalinity as CaCO3	ND	3.0	mg/L							11/26/13	
Bicarbonate as CaCO3	ND	3.0	mg/L							11/26/13	
Carbonate as CaCO3	ND	3.0	mg/L							11/26/13	
Hydroxide as CaCO3	ND	3.0	mg/L							11/26/13	

Blank Spike (A314132-BS1)

Alkalinity as CaCO3	100	3.0	mg/L	100		100	80-120			11/26/13	
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Blank Spike Dup (A314132-BSD1)

Alkalinity as CaCO3	98	3.0	mg/L	100		98	80-120	2	20	11/26/13	
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Duplicate (A314132-DUP1), Source: A3K1885-01

Alkalinity as CaCO3	230	3.0	mg/L		240			1	10	11/26/13	
Bicarbonate as CaCO3	230	3.0	mg/L		240			1	10	11/26/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	11/26/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	11/26/13	

Duplicate (A314132-DUP2), Source: A3K1922-06

Alkalinity as CaCO3	72	3.0	mg/L		72			1	10	11/26/13	
Bicarbonate as CaCO3	72	3.0	mg/L		72			1	10	11/26/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	11/26/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	11/26/13	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2510 B - Quality Control

Batch: A314132

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A314132-BLK1)

Conductivity @ 25C	ND	1.0	umhos/cm							11/26/13	
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Duplicate (A314132-DUP1), Source: A3K1885-01

Conductivity @ 25C	1400	1.0	umhos/cm		1400			0	20	11/26/13	
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Duplicate (A314132-DUP2), Source: A3K1922-06

Conductivity @ 25C	210	1.0	umhos/cm		210			0	20	11/26/13	
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SM 2540C - Quality Control

Batch: A314178

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: DEH

Blank (A314178-BLK1)

Total Dissolved Solids	ND	5.0	mg/L							12/02/13	
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Blank Spike (A314178-BS1)

Total Dissolved Solids	990	5.0	mg/L	1000		99	70-130			12/02/13	
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Duplicate (A314178-DUP1), Source: A3K1910-01

Total Dissolved Solids	29000	5.0	mg/L		28000			5	20	12/02/13	
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SM 4500-H+ B - Quality Control

Batch: A314132

Prepared: 11/26/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Duplicate (A314132-DUP1), Source: A3K1885-01

pH (1)	8.1		pH Units		8.1			0	20	11/26/13	
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Duplicate (A314132-DUP2), Source: A3K1922-06

pH (1)	7.9		pH Units		7.9			0	20	11/26/13	
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SM 4500-NH3 G - Quality Control

Batch: A314346

Prepared: 12/4/2013

Prep Method: Ammonia Distillation

Analyst: KKC

Blank (A314346-BLK1)

Ammonia as N	ND	0.10	mg/L							12/09/13	
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Blank Spike (A314346-BS1)

Ammonia as N	9.9	0.10	mg/L	10		99	80-120			12/09/13	
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Blank Spike Dup (A314346-BSD1)

Ammonia as N	10	0.10	mg/L	10		102	80-120	2	20	12/09/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-NH3 G - Quality Control

Batch: A314346

Prepared: 12/4/2013

Prep Method: Ammonia Distillation

Analyst: KKC

Matrix Spike (A314346-MS1), Source: A3K1829-06

Ammonia as N	9.9	0.10	mg/L	10	0.41	94	80-120			12/09/13	
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Matrix Spike (A314346-MS2), Source: A3K1880-10

Ammonia as N	9.3	0.10	mg/L	10	ND	92	80-120			12/09/13	
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Matrix Spike Dup (A314346-MSD1), Source: A3K1829-06

Ammonia as N	10	0.10	mg/L	10	0.41	99	80-120	5	20	12/09/13	
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Matrix Spike Dup (A314346-MSD2), Source: A3K1880-10

Ammonia as N	9.9	0.10	mg/L	10	ND	98	80-120	6	20	12/09/13	
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SM 4500-NO3 F - Quality Control

Batch: A314432

Prepared: 12/5/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314432-BLK1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	ND	0.10	mg/L							12/05/13	
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Blank Spike (A314432-BS1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	9.4	0.10	mg/L	10		94	80-120			12/05/13	
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Blank Spike Dup (A314432-BSD1)

Total Oxidizable Nitrogen, as N - Dissolved (1)	9.5	0.10	mg/L	10		95	80-120	1	20	12/05/13	
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Matrix Spike (A314432-MS1), Source: A3K1854-02

Total Oxidizable Nitrogen, as N - Dissolved (1)	14	0.10	mg/L	10	4.9	96	80-120			12/05/13	
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Matrix Spike (A314432-MS2), Source: A3K1910-01

Total Oxidizable Nitrogen, as N - Dissolved (1)	8.7	0.10	mg/L	10	ND	87	80-120			12/05/13	
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Matrix Spike Dup (A314432-MSD1), Source: A3K1854-02

Total Oxidizable Nitrogen, as N - Dissolved (1)	15	0.10	mg/L	10	4.9	96	80-120	0	20	12/05/13	
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Matrix Spike Dup (A314432-MSD2), Source: A3K1910-01

Total Oxidizable Nitrogen, as N - Dissolved (1)	9.2	0.10	mg/L	10	ND	92	80-120	5	20	12/05/13	
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SM 4500-P E - Quality Control

Batch: A314203

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank (A314203-BLK1)

Orthophosphate as P	ND	0.010	mg/L							11/27/13	
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Blank Spike (A314203-BS1)

Orthophosphate as P	0.23	0.010	mg/L	0.25		93	90-110			11/27/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-P E - Quality Control

Batch: A314203

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: KKC

Blank Spike Dup (A314203-BSD1)

Orthophosphate as P 0.23 0.010 mg/L 0.25 92 90-110 1 20 11/27/13

Matrix Spike (A314203-MS1), Source: A3K1964-02

Orthophosphate as P 0.31 0.010 mg/L 0.25 0.082 91 80-120 11/27/13

Matrix Spike Dup (A314203-MSD1), Source: A3K1964-02

Orthophosphate as P 0.31 0.010 mg/L 0.25 0.082 92 80-120 1 20 11/27/13

SM 5540 C - Quality Control

Batch: A314153

Prepared: 11/27/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A314153-BLK1)

MBAS, Calculated as LAS, mol wt 340 ND 0.050 mg/L 11/27/13

Blank Spike (A314153-BS1)

MBAS, Calculated as LAS, mol wt 340 0.90 0.050 mg/L 1.0 90 80-120 11/27/13

Blank Spike Dup (A314153-BSD1)

MBAS, Calculated as LAS, mol wt 340 0.93 0.050 mg/L 1.0 93 80-120 3 20 11/27/13

Matrix Spike (A314153-MS1), Source: A3K1904-01

MBAS, Calculated as LAS, mol wt 340 1.0 0.050 mg/L 1.0 ND 99 80-120 11/27/13

Matrix Spike Dup (A314153-MSD1), Source: A3K1904-01

MBAS, Calculated as LAS, mol wt 340 0.97 0.050 mg/L 1.0 ND 93 80-120 6 20 11/27/13

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A314146

Prepared: 11/26/2013

Prep Method: EPA 200.2

Analyst: NRE

Blank (A314146-BLK2)

Aluminum	ND	0.050	mg/L							12/04/13	
Calcium	ND	0.10	mg/L							12/04/13	
Iron	ND	0.030	mg/L							12/04/13	
Magnesium	ND	0.10	mg/L							12/04/13	
Manganese	ND	0.010	mg/L							12/04/13	
Zinc	ND	0.050	mg/L							12/04/13	

Blank Spike (A314146-BS2)

Aluminum	0.19	0.050	mg/L	0.20		94	85-115			12/04/13	
Calcium	10	0.10	mg/L	10		100	85-115			12/04/13	
Iron	1.9	0.030	mg/L	2.0		97	85-115			12/04/13	
Magnesium	9.9	0.10	mg/L	10		99	85-115			12/04/13	
Manganese	0.20	0.010	mg/L	0.20		98	85-115			12/04/13	
Zinc	0.21	0.050	mg/L	0.20		103	85-115			12/04/13	

Blank Spike Dup (A314146-BSD2)

Aluminum	0.18	0.050	mg/L	0.20		91	85-115	3	20	12/04/13	
Calcium	10	0.10	mg/L	10		102	85-115	1	20	12/04/13	
Iron	2.0	0.030	mg/L	2.0		98	85-115	0	20	12/04/13	
Magnesium	9.9	0.10	mg/L	10		99	85-115	1	20	12/04/13	
Manganese	0.20	0.010	mg/L	0.20		98	85-115	0	20	12/04/13	
Zinc	0.21	0.050	mg/L	0.20		103	85-115	0	20	12/04/13	

Matrix Spike (A314146-MS3), Source: A3K1935-01

Aluminum	0.72	0.050	mg/L	0.20	0.42	150	70-130			12/04/13	MS1.0 High
Calcium	53	0.10	mg/L	10	43	101	70-130			12/04/13	
Iron	2.5	0.030	mg/L	2.0	0.52	99	70-130			12/04/13	
Magnesium	11	0.10	mg/L	10	0.68	99	70-130			12/04/13	
Manganese	0.21	0.010	mg/L	0.20	0.020	97	70-130			12/04/13	
Zinc	0.21	0.050	mg/L	0.20	ND	107	70-130			12/04/13	

Matrix Spike Dup (A314146-MSD3), Source: A3K1935-01

Aluminum	0.71	0.050	mg/L	0.20	0.42	144	70-130	1	20	12/04/13	MS1.0 High
Calcium	52	0.10	mg/L	10	43	92	70-130	2	20	12/04/13	
Iron	2.5	0.030	mg/L	2.0	0.52	99	70-130	0	20	12/04/13	
Magnesium	11	0.10	mg/L	10	0.68	99	70-130	0	20	12/04/13	
Manganese	0.21	0.010	mg/L	0.20	0.020	97	70-130	0	20	12/04/13	
Zinc	0.21	0.050	mg/L	0.20	ND	104	70-130	3	20	12/04/13	

EPA 200.7 - Quality Control

Batch: A314514

Prepared: 12/6/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A314514-BLK2)

Barium - Dissolved (1)	ND	0.050	mg/L							12/10/13	
Boron - Dissolved (1)	ND	0.10	mg/L							12/10/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A314514

Prepared: 12/6/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A314514-BLK2)

Calcium - Dissolved (1)	ND	0.10	mg/L							12/10/13	
Iron - Dissolved (1)	ND	0.030	mg/L							12/10/13	
Magnesium - Dissolved (1)	ND	0.10	mg/L							12/10/13	
Manganese - Dissolved (1)	ND	0.010	mg/L							12/10/13	
Potassium - Dissolved (1)	ND	2.0	mg/L							12/10/13	
Silica (SiO2) - Dissolved (1)	ND	0.20	mg/L							12/10/13	
Sodium - Dissolved (1)	ND	1.0	mg/L							12/10/13	

Blank Spike (A314514-BS2)

Barium - Dissolved (1)	0.21	0.050	mg/L	0.20		106	85-115			12/10/13	
Boron - Dissolved (1)	0.63	0.10	mg/L	0.60		106	85-115			12/10/13	
Calcium - Dissolved (1)	11	0.10	mg/L	10		108	85-115			12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0		104	85-115			12/10/13	
Magnesium - Dissolved (1)	10	0.10	mg/L	10		105	85-115			12/10/13	
Manganese - Dissolved (1)	0.21	0.010	mg/L	0.20		104	85-115			12/10/13	
Potassium - Dissolved (1)	11	2.0	mg/L	10		105	85-115			12/10/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		102	85-115			12/10/13	
Sodium - Dissolved (1)	11	1.0	mg/L	10		106	85-115			12/10/13	

Blank Spike Dup (A314514-BSD2)

Barium - Dissolved (1)	0.21	0.050	mg/L	0.20		105	85-115	1	20	12/10/13	
Boron - Dissolved (1)	0.63	0.10	mg/L	0.60		105	85-115	1	20	12/10/13	
Calcium - Dissolved (1)	11	0.10	mg/L	10		107	85-115	1	20	12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0		104	85-115	0	20	12/10/13	
Magnesium - Dissolved (1)	10	0.10	mg/L	10		104	85-115	1	20	12/10/13	
Manganese - Dissolved (1)	0.21	0.010	mg/L	0.20		103	85-115	1	20	12/10/13	
Potassium - Dissolved (1)	10	2.0	mg/L	10		103	85-115	2	20	12/10/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		101	85-115	1	20	12/10/13	
Sodium - Dissolved (1)	10	1.0	mg/L	10		104	85-115	2	20	12/10/13	

Matrix Spike (A314514-MS3), Source: A3K1890-01

Barium - Dissolved (1)	0.22	0.050	mg/L	0.20	ND	110	70-130			12/10/13	
Boron - Dissolved (1)	1.1	0.10	mg/L	0.60	0.48	102	70-130			12/10/13	
Calcium - Dissolved (1)	13	0.10	mg/L	10	2.2	106	70-130			12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.089	103	70-130			12/10/13	
Magnesium - Dissolved (1)	11	0.10	mg/L	10	0.27	103	70-130			12/10/13	
Manganese - Dissolved (1)	0.30	0.010	mg/L	0.20	0.091	102	70-130			12/10/13	
Potassium - Dissolved (1)	12	2.0	mg/L	10	ND	103	70-130			12/10/13	
Silica (SiO2) - Dissolved (1)	57	0.20	mg/L	2.1	55	123	70-130			12/10/13	
Sodium - Dissolved (1)	150	1.0	mg/L	10	140	105	70-130			12/10/13	

Matrix Spike (A314514-MS4), Source: A3L0185-01

Barium - Dissolved (1)	0.21	0.050	mg/L	0.20	ND	107	70-130			12/10/13	
Boron - Dissolved (1)	1.1	0.10	mg/L	0.60	0.52	103	70-130			12/10/13	
Calcium - Dissolved (1)	13	0.10	mg/L	10	2.7	106	70-130			12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.051	103	70-130			12/10/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A314514

Prepared: 12/6/2013

Prep Method: Filtration - Metals

Analyst: NRE

Matrix Spike (A314514-MS4), Source: A3L0185-01

Magnesium - Dissolved (1)	10	0.10	mg/L	10	0.29	101	70-130			12/10/13	
Manganese - Dissolved (1)	0.21	0.010	mg/L	0.20	ND	105	70-130			12/10/13	
Potassium - Dissolved (1)	12	2.0	mg/L	10	ND	102	70-130			12/10/13	
Silica (SiO2) - Dissolved (1)	59	0.20	mg/L	2.1	57	116	70-130			12/10/13	
Sodium - Dissolved (1)	160	1.0	mg/L	10	150	124	70-130			12/10/13	

Matrix Spike Dup (A314514-MSD3), Source: A3K1890-01

Barium - Dissolved (1)	0.22	0.050	mg/L	0.20	ND	111	70-130	1	20	12/10/13	
Boron - Dissolved (1)	1.1	0.10	mg/L	0.60	0.48	102	70-130	0	20	12/10/13	
Calcium - Dissolved (1)	13	0.10	mg/L	10	2.2	104	70-130	1	20	12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.089	103	70-130	0	20	12/10/13	
Magnesium - Dissolved (1)	10	0.10	mg/L	10	0.27	102	70-130	1	20	12/10/13	
Manganese - Dissolved (1)	0.29	0.010	mg/L	0.20	0.091	102	70-130	0	20	12/10/13	
Potassium - Dissolved (1)	12	2.0	mg/L	10	ND	103	70-130	0	20	12/10/13	
Silica (SiO2) - Dissolved (1)	57	0.20	mg/L	2.1	55	126	70-130	0	20	12/10/13	
Sodium - Dissolved (1)	150	1.0	mg/L	10	140	110	70-130	0	20	12/10/13	

Matrix Spike Dup (A314514-MSD4), Source: A3L0185-01

Barium - Dissolved (1)	0.22	0.050	mg/L	0.20	ND	109	70-130	2	20	12/10/13	
Boron - Dissolved (1)	1.2	0.10	mg/L	0.60	0.52	107	70-130	2	20	12/10/13	
Calcium - Dissolved (1)	14	0.10	mg/L	10	2.7	109	70-130	2	20	12/10/13	
Iron - Dissolved (1)	2.1	0.030	mg/L	2.0	0.051	104	70-130	1	20	12/10/13	
Magnesium - Dissolved (1)	10	0.10	mg/L	10	0.29	101	70-130	0	20	12/10/13	
Manganese - Dissolved (1)	0.21	0.010	mg/L	0.20	ND	105	70-130	0	20	12/10/13	
Potassium - Dissolved (1)	12	2.0	mg/L	10	ND	105	70-130	2	20	12/10/13	
Silica (SiO2) - Dissolved (1)	61	0.20	mg/L	2.1	57	221	70-130	4	20	12/10/13	MS1.0 High
Sodium - Dissolved (1)	160	1.0	mg/L	10	150	166	70-130	3	20	12/10/13	MS1.0 High

EPA 200.8 - Quality Control

Batch: A314146

Prepared: 11/26/2013

Prep Method: EPA 200.2

Analyst: MAS

Blank (A314146-BLK1)

Arsenic	ND	2.0	ug/L							11/27/13	
Copper	ND	5.0	ug/L							11/27/13	

Blank Spike (A314146-BS1)

Arsenic	190	2.0	ug/L	200		95	85-115			11/27/13	
Copper	180	5.0	ug/L	200		92	85-115			11/27/13	

Blank Spike Dup (A314146-BSD1)

Arsenic	190	2.0	ug/L	200		93	85-115	2	20	11/27/13	
Copper	180	5.0	ug/L	200		89	85-115	3	20	11/27/13	

Matrix Spike (A314146-MS1), Source: A3K1935-01

Arsenic	200	2.0	ug/L	200	10	95	70-130			11/27/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.8 - Quality Control

Batch: A314146

Prepared: 11/26/2013

Prep Method: EPA 200.2

Analyst: MAS

Matrix Spike (A314146-MS1), Source: A3K1935-01

Copper	180	5.0	ug/L	200	ND	87	70-130			11/27/13	
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Matrix Spike (A314146-MS2), Source: A3K1935-02

Arsenic	210	2.0	ug/L	200	13	99	70-130			11/27/13	
Copper	180	5.0	ug/L	200	ND	91	70-130			11/27/13	

Matrix Spike Dup (A314146-MSD1), Source: A3K1935-01

Arsenic	200	2.0	ug/L	200	10	96	70-130	1	20	11/27/13	
Copper	180	5.0	ug/L	200	ND	88	70-130	0	20	11/27/13	

Matrix Spike Dup (A314146-MSD2), Source: A3K1935-02

Arsenic	210	2.0	ug/L	200	13	98	70-130	1	20	11/27/13	
Copper	180	5.0	ug/L	200	ND	91	70-130	0	20	11/27/13	

EPA 200.8 - Quality Control

Batch: A314514

Prepared: 12/6/2013

Prep Method: Filtration - Metals

Analyst: MAS

Blank (A314514-BLK1)

Strontium - Dissolved (1)	ND	1.0	ug/L							12/10/13	
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Blank Spike (A314514-BS1)

Strontium - Dissolved (1)	200	1.0	ug/L	200		99	85-115			12/10/13	
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Blank Spike Dup (A314514-BSD1)

Strontium - Dissolved (1)	200	1.0	ug/L	200		98	85-115	1	20	12/10/13	
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Matrix Spike (A314514-MS1), Source: A3K1890-01

Strontium - Dissolved (1)	220	1.0	ug/L	200	23	101	70-130			12/10/13	
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Matrix Spike Dup (A314514-MSD1), Source: A3K1890-01

Strontium - Dissolved (1)	220	1.0	ug/L	200	23	96	70-130	4	20	12/10/13	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A314194

Prepared: 11/27/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A314194-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							11/27/13	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							11/27/13	
Surrogate: TCMX	4.2			4.5		94	70-130			11/27/13	

Blank Spike (A314194-BS1)

Dibromochloropropane (DBCP)	0.21	0.010	ug/L	0.20		107	70-130			11/27/13	
Ethylene Dibromide (EDB)	0.22	0.020	ug/L	0.20		108	70-130			11/27/13	
Surrogate: TCMX	4.2			4.5		93	70-130			11/27/13	

Blank Spike Dup (A314194-BSD1)

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20		108	70-130	1	20	11/28/13	
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.20		105	70-130	3	20	11/28/13	
Surrogate: TCMX	4.2			4.5		95	70-130			11/28/13	

Matrix Spike (A314194-MS1), Source: A3K1596-06

Dibromochloropropane (DBCP)	0.23	0.010	ug/L	0.20	ND	113	65-135			11/27/13	
Ethylene Dibromide (EDB)	0.20	0.020	ug/L	0.20	ND	98	65-135			11/27/13	
Surrogate: TCMX	4.0			4.5		88	70-130			11/27/13	

Matrix Spike Dup (A314194-MSD1), Source: A3K1596-06

Dibromochloropropane (DBCP)	0.22	0.010	ug/L	0.20	ND	111	65-135	1	20	11/27/13	
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.20	ND	105	65-135	7	20	11/27/13	
Surrogate: TCMX	4.1			4.5		90	70-130			11/27/13	

EPA 505 - Quality Control

Batch: A314194

Prepared: 11/27/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A314194-BLK1)

Aldrin	ND	0.075	ug/L							11/27/13	
Chlordane	ND	0.10	ug/L							11/27/13	
Chlorothalonil	ND	5.0	ug/L							11/27/13	
Dieldrin	ND	0.020	ug/L							11/27/13	
Endrin	ND	0.10	ug/L							11/27/13	
Heptachlor	ND	0.010	ug/L							11/27/13	
Heptachlor Epoxide	ND	0.010	ug/L							11/27/13	
Hexachlorobenzene	ND	0.50	ug/L							11/27/13	
Hexachlorocyclopentadiene	ND	1.0	ug/L							11/27/13	
Lindane	ND	0.20	ug/L							11/27/13	
Methoxychlor	ND	10	ug/L							11/27/13	
PCB Aroclor Screen	ND	0.50	ug/L							11/27/13	
Toxaphene	ND	1.0	ug/L							11/27/13	
Trifluralin	ND	1.0	ug/L							11/27/13	
Surrogate: TCMX	4.2			4.5		94	70-130			11/27/13	

Blank Spike (A314194-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A314194

Prepared: 11/27/2013

Prep Method: EPA 505

Analyst: GAK

Blank Spike (A314194-BS1)

Aldrin	1.0	0.075	ug/L	1.0		101	70-130			11/27/13	
Chlorothalonil	9.8	5.0	ug/L	10		98	70-130			11/27/13	
Dieldrin	0.47	0.020	ug/L	0.40		117	70-130			11/27/13	
Endrin	0.23	0.10	ug/L	0.20		115	70-130			11/27/13	
Heptachlor	0.23	0.010	ug/L	0.20		115	70-130			11/27/13	
Heptachlor Epoxide	0.23	0.010	ug/L	0.20		113	70-130			11/27/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0		103	70-130			11/27/13	
Hexachlorocyclopentadiene	2.0	1.0	ug/L	2.0		99	70-130			11/27/13	
Lindane	0.47	0.20	ug/L	0.40		117	70-130			11/27/13	
Methoxychlor	2.5	10	ug/L	2.0		124	70-130			11/27/13	
Trifluralin	2.3	1.0	ug/L	2.0		116	70-130			11/27/13	
Surrogate: TCMX	4.2			4.5		93	70-130			11/27/13	

Blank Spike Dup (A314194-BSD1)

Aldrin	0.98	0.075	ug/L	1.0		98	70-130	3	20	11/28/13	
Chlorothalonil	9.9	5.0	ug/L	10		99	70-130	1	20	11/28/13	
Dieldrin	0.47	0.020	ug/L	0.40		116	70-130	0	20	11/28/13	
Endrin	0.23	0.10	ug/L	0.20		114	70-130	1	20	11/28/13	
Heptachlor	0.23	0.010	ug/L	0.20		113	70-130	2	20	11/28/13	
Heptachlor Epoxide	0.24	0.010	ug/L	0.20		119	70-130	6	20	11/28/13	
Hexachlorobenzene	2.0	0.50	ug/L	2.0		100	70-130	3	20	11/28/13	
Hexachlorocyclopentadiene	1.8	1.0	ug/L	2.0		88	70-130	11	20	11/28/13	
Lindane	0.47	0.20	ug/L	0.40		118	70-130	1	20	11/28/13	
Methoxychlor	2.5	10	ug/L	2.0		125	70-130	1	20	11/28/13	
Trifluralin	2.3	1.0	ug/L	2.0		114	70-130	1	20	11/28/13	
Surrogate: TCMX	4.2			4.5		95	70-130			11/28/13	

Matrix Spike (A314194-MS1), Source: A3K1596-06

Aldrin	0.91	0.075	ug/L	1.0	ND	90	65-135			11/27/13	
Chlorothalonil	10	5.0	ug/L	10	ND	99	65-135			11/27/13	
Dieldrin	0.46	0.020	ug/L	0.40	ND	113	65-135			11/27/13	
Endrin	0.24	0.10	ug/L	0.20	ND	118	65-135			11/27/13	
Heptachlor	0.21	0.010	ug/L	0.20	ND	104	65-135			11/27/13	
Heptachlor Epoxide	0.23	0.010	ug/L	0.20	ND	114	65-135			11/27/13	
Hexachlorobenzene	1.9	0.50	ug/L	2.0	ND	96	65-135			11/27/13	
Hexachlorocyclopentadiene	1.6	1.0	ug/L	2.0	ND	77	65-135			11/27/13	
Lindane	0.47	0.20	ug/L	0.40	ND	117	65-135			11/27/13	
Methoxychlor	2.5	10	ug/L	2.0	ND	126	65-135			11/27/13	
Trifluralin	2.0	1.0	ug/L	2.0	ND	101	65-135			11/27/13	
Surrogate: TCMX	4.0			4.5		88	70-130			11/27/13	

Matrix Spike Dup (A314194-MSD1), Source: A3K1596-06

Aldrin	1.0	0.075	ug/L	1.0	ND	100	65-135	10	20	11/27/13	
Chlorothalonil	10	5.0	ug/L	10	ND	102	65-135	3	20	11/27/13	
Dieldrin	0.47	0.020	ug/L	0.40	ND	117	65-135	4	20	11/27/13	
Endrin	0.24	0.10	ug/L	0.20	ND	119	65-135	1	20	11/27/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A314194

Prepared: 11/27/2013

Prep Method: EPA 505

Analyst: GAK

Matrix Spike Dup (A314194-MSD1), Source: A3K1596-06

Heptachlor	0.23	0.010	ug/L	0.20	ND	114	65-135	9	20	11/27/13	
Heptachlor Epoxide	0.24	0.010	ug/L	0.20	ND	119	65-135	4	20	11/27/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0	ND	104	65-135	8	20	11/27/13	
Hexachlorocyclopentadiene	1.8	1.0	ug/L	2.0	ND	90	65-135	15	20	11/27/13	
Lindane	0.48	0.20	ug/L	0.40	ND	118	65-135	1	20	11/27/13	
Methoxychlor	2.6	10	ug/L	2.0	ND	130	65-135	4	20	11/27/13	
Trifluralin	2.1	1.0	ug/L	2.0	ND	106	65-135	5	20	11/27/13	
Surrogate: TCMX	4.1			4.5		90	70-130			11/27/13	

EPA 515.3 - Quality Control

Batch: A314421

Prepared: 12/5/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank (A314421-BLK1)

2,4,5-T	ND	1.0	ug/L							12/08/13	
2,4,5-TP (Silvex)	ND	1.0	ug/L							12/08/13	
2,4-D	ND	10	ug/L							12/08/13	
Bentazon	ND	2.0	ug/L							12/08/13	
Dalapon	ND	10	ug/L							12/08/13	
Dicamba	ND	1.5	ug/L							12/08/13	
Dinoseb	ND	2.0	ug/L							12/08/13	
Pentachlorophenol	ND	0.20	ug/L							12/08/13	
Picloram	ND	1.0	ug/L							12/08/13	
Surrogate: DCPAA	43			58		73	70-130			12/08/13	

Blank Spike (A314421-BS1)

2,4,5-T	4.2	1.0	ug/L	4.0		104	70-130			12/08/13	
2,4,5-TP (Silvex)	4.1	1.0	ug/L	4.0		104	70-130			12/08/13	
2,4-D	41	10	ug/L	40		103	70-130			12/08/13	
Bentazon	8.7	2.0	ug/L	8.0		109	70-130			12/08/13	
Dalapon	40	10	ug/L	40		99	70-130			12/08/13	
Dicamba	6.1	1.5	ug/L	6.0		101	70-130			12/08/13	
Dinoseb	7.8	2.0	ug/L	8.0		97	70-130			12/08/13	
Pentachlorophenol	0.81	0.20	ug/L	0.80		101	70-130			12/08/13	
Picloram	3.8	1.0	ug/L	4.0		96	70-130			12/08/13	
Surrogate: DCPAA	45			58		78	70-130			12/08/13	

Blank Spike Dup (A314421-BSD1)

2,4,5-T	4.1	1.0	ug/L	4.0		102	70-130	3	20	12/08/13	
2,4,5-TP (Silvex)	4.1	1.0	ug/L	4.0		101	70-130	2	20	12/08/13	
2,4-D	40	10	ug/L	40		100	70-130	3	20	12/08/13	
Bentazon	8.7	2.0	ug/L	8.0		109	70-130	0	20	12/08/13	
Dalapon	39	10	ug/L	40		99	70-130	0	20	12/08/13	
Dicamba	5.9	1.5	ug/L	6.0		98	70-130	3	20	12/08/13	
Dinoseb	7.6	2.0	ug/L	8.0		95	70-130	2	20	12/08/13	
Pentachlorophenol	0.80	0.20	ug/L	0.80		100	70-130	1	20	12/08/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A314421

Prepared: 12/5/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A314421-BSD1)

Picloram	3.9	1.0	ug/L	4.0		97	70-130	1	20	12/08/13	
Surrogate: DCPAA	45			58		78	70-130			12/08/13	

Matrix Spike (A314421-MS1), Source: A3K1910-01

2,4,5-T	4.2	1.0	ug/L	4.0	ND	104	70-130			12/08/13	
2,4,5-TP (Silvex)	4.1	1.0	ug/L	4.0	ND	102	70-130			12/08/13	
2,4-D	42	10	ug/L	40	ND	105	70-130			12/08/13	
Bentazon	8.7	2.0	ug/L	8.0	ND	109	70-130			12/08/13	
Dalapon	41	10	ug/L	40	ND	102	70-130			12/08/13	
Dicamba	6.2	1.5	ug/L	6.0	ND	103	70-130			12/08/13	
Dinoseb	7.5	2.0	ug/L	8.0	ND	93	70-130			12/08/13	
Pentachlorophenol	0.80	0.20	ug/L	0.80	ND	100	70-130			12/08/13	
Picloram	4.3	1.0	ug/L	4.0	ND	102	70-130			12/08/13	
Surrogate: DCPAA	46			58		80	70-130			12/08/13	

Matrix Spike Dup (A314421-MSD1), Source: A3K1910-01

2,4,5-T	4.2	1.0	ug/L	4.0	ND	104	70-130	0	20	12/08/13	
2,4,5-TP (Silvex)	4.1	1.0	ug/L	4.0	ND	103	70-130	1	20	12/08/13	
2,4-D	42	10	ug/L	40	ND	106	70-130	1	20	12/08/13	
Bentazon	8.7	2.0	ug/L	8.0	ND	109	70-130	0	20	12/08/13	
Dalapon	41	10	ug/L	40	ND	104	70-130	2	20	12/08/13	
Dicamba	6.2	1.5	ug/L	6.0	ND	104	70-130	1	20	12/08/13	
Dinoseb	7.5	2.0	ug/L	8.0	ND	94	70-130	0	20	12/08/13	
Pentachlorophenol	0.80	0.20	ug/L	0.80	ND	100	70-130	1	20	12/08/13	
Picloram	4.3	1.0	ug/L	4.0	ND	103	70-130	1	20	12/08/13	
Surrogate: DCPAA	47			58		81	70-130			12/08/13	

EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A314277-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							12/04/13	
1,1,1-Trichloroethane	ND	0.50	ug/L							12/04/13	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							12/04/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							12/04/13	
1,1,2-Trichloroethane	ND	0.50	ug/L							12/04/13	
1,1-Dichloroethane	ND	0.50	ug/L							12/04/13	
1,1-Dichloroethene	ND	0.50	ug/L							12/04/13	
1,1-Dichloropropene	ND	0.50	ug/L							12/04/13	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							12/04/13	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							12/04/13	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							12/04/13	
1,2-Dichlorobenzene	ND	0.50	ug/L							12/04/13	
1,2-Dichloroethane	ND	0.50	ug/L							12/04/13	
1,2-Dichloropropane	ND	0.50	ug/L							12/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A314277-BLK1)

1,3,5-Trimethylbenzene	ND	0.50	ug/L							12/04/13	
1,3-Dichlorobenzene	ND	0.50	ug/L							12/04/13	
1,3-Dichloropropane	ND	0.50	ug/L							12/04/13	
1,4-Dichlorobenzene	ND	0.50	ug/L							12/04/13	
2,2-Dichloropropane	ND	0.50	ug/L							12/04/13	
2-Butanone	ND	5.0	ug/L							12/04/13	
2-Chlorotoluene	ND	0.50	ug/L							12/04/13	
2-Hexanone	ND	10	ug/L							12/04/13	
4-Chlorotoluene	ND	0.50	ug/L							12/04/13	
4-Methyl-2-pentanone	ND	5.0	ug/L							12/04/13	
Acetone	ND	10	ug/L							12/04/13	
Benzene	ND	0.50	ug/L							12/04/13	
Bromobenzene	ND	0.50	ug/L							12/04/13	
Bromochloromethane	ND	0.50	ug/L							12/04/13	
Bromodichloromethane	ND	0.50	ug/L							12/04/13	
Bromoform	ND	0.50	ug/L							12/04/13	
Bromomethane	ND	0.50	ug/L							12/04/13	
Carbon Tetrachloride	ND	0.50	ug/L							12/04/13	
Chlorobenzene	ND	0.50	ug/L							12/04/13	
Chloroethane	ND	0.50	ug/L							12/04/13	
Chloroform	ND	0.50	ug/L							12/04/13	
Chloromethane	ND	0.50	ug/L							12/04/13	
cis-1,2-Dichloroethene	ND	0.50	ug/L							12/04/13	
cis-1,3-Dichloropropene	ND	0.50	ug/L							12/04/13	
Dibromochloromethane	ND	0.50	ug/L							12/04/13	
Dibromomethane	ND	0.50	ug/L							12/04/13	
Dichlorodifluoromethane	ND	0.50	ug/L							12/04/13	
Dichloromethane	ND	0.50	ug/L							12/04/13	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							12/04/13	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							12/04/13	
Ethylbenzene	ND	0.50	ug/L							12/04/13	
Hexachlorobutadiene	ND	0.50	ug/L							12/04/13	
Isopropylbenzene	ND	0.50	ug/L							12/04/13	
m,p-Xylenes	ND	0.50	ug/L							12/04/13	
Methyl-t-butyl ether	ND	0.50	ug/L							12/04/13	
Naphthalene	ND	0.50	ug/L							12/04/13	
n-Butylbenzene	ND	0.50	ug/L							12/04/13	
n-Propylbenzene	ND	0.50	ug/L							12/04/13	
o-Xylene	ND	0.50	ug/L							12/04/13	
p-Isopropyltoluene	ND	0.50	ug/L							12/04/13	
sec-Butylbenzene	ND	0.50	ug/L							12/04/13	
Styrene	ND	0.50	ug/L							12/04/13	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							12/04/13	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							12/04/13	
tert-Butylbenzene	ND	0.50	ug/L							12/04/13	
Tetrachloroethene (PCE)	ND	0.50	ug/L							12/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A314277-BLK1)

Toluene	ND	0.50	ug/L							12/04/13	
trans-1,2-Dichloroethene	ND	0.50	ug/L							12/04/13	
trans-1,3-Dichloropropene	ND	0.50	ug/L							12/04/13	
Trichloroethene (TCE)	ND	0.50	ug/L							12/04/13	
Trichlorofluoromethane	ND	5.0	ug/L							12/04/13	
Vinyl Chloride	ND	0.50	ug/L							12/04/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.5			5.0		90	70-130			12/04/13	
Surrogate: Bromofluorobenzene	51			50		101	70-130			12/04/13	

Blank Spike (A314277-BS1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		104	70-130			12/04/13	
1,1,1-Trichloroethane	12	0.50	ug/L	10		117	70-130			12/04/13	
1,1,2,2-Tetrachloroethane	10	0.50	ug/L	10		103	70-130			12/04/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	10	10	ug/L	10		102	70-130			12/04/13	
1,1,2-Trichloroethane	10	0.50	ug/L	10		102	70-130			12/04/13	
1,1-Dichloroethane	11	0.50	ug/L	10		112	70-130			12/04/13	
1,1-Dichloroethene	11	0.50	ug/L	10		112	70-130			12/04/13	
1,1-Dichloropropene	11	0.50	ug/L	10		106	70-130			12/04/13	
1,2,3-Trichlorobenzene	11	0.50	ug/L	10		112	70-130			12/04/13	
1,2,4-Trichlorobenzene	12	0.50	ug/L	10		116	70-130			12/04/13	
1,2,4-Trimethylbenzene	11	0.50	ug/L	10		112	70-130			12/04/13	
1,2-Dichlorobenzene	11	0.50	ug/L	10		112	70-130			12/04/13	
1,2-Dichloroethane	12	0.50	ug/L	10		118	70-130			12/04/13	
1,2-Dichloropropane	10	0.50	ug/L	10		103	70-130			12/04/13	
1,3,5-Trimethylbenzene	11	0.50	ug/L	10		107	70-130			12/04/13	
1,3-Dichlorobenzene	12	0.50	ug/L	10		121	70-130			12/04/13	
1,3-Dichloropropane	10	0.50	ug/L	10		104	70-130			12/04/13	
1,4-Dichlorobenzene	11	0.50	ug/L	10		111	70-130			12/04/13	
2,2-Dichloropropane	12	0.50	ug/L	10		121	70-130			12/04/13	
2-Butanone	11	5.0	ug/L	10		107	70-130			12/04/13	
2-Chlorotoluene	12	0.50	ug/L	10		116	70-130			12/04/13	
2-Hexanone	11	10	ug/L	10		112	70-130			12/04/13	
4-Chlorotoluene	12	0.50	ug/L	10		120	70-130			12/04/13	
4-Methyl-2-pentanone	8.5	5.0	ug/L	10		85	70-130			12/04/13	
Acetone	12	10	ug/L	10		120	70-130			12/04/13	
Benzene	10	0.50	ug/L	10		105	70-130			12/04/13	
Bromobenzene	11	0.50	ug/L	10		109	70-130			12/04/13	
Bromochloromethane	11	0.50	ug/L	10		112	70-130			12/04/13	
Bromodichloromethane	11	0.50	ug/L	10		112	70-130			12/04/13	
Bromoform	10	0.50	ug/L	10		102	70-130			12/04/13	
Bromomethane	15	0.50	ug/L	10		152	70-130			12/04/13	BS High
Carbon Tetrachloride	11	0.50	ug/L	10		114	70-130			12/04/13	
Chlorobenzene	11	0.50	ug/L	10		107	70-130			12/04/13	
Chloroethane	11	0.50	ug/L	10		110	70-130			12/04/13	
Chloroform	11	0.50	ug/L	10		114	70-130			12/04/13	
Chloromethane	12	0.50	ug/L	10		116	70-130			12/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A314277-BS1)

cis-1,2-Dichloroethene	11	0.50	ug/L	10		109	70-130			12/04/13	
cis-1,3-Dichloropropene	11	0.50	ug/L	10		113	70-130			12/04/13	
Dibromochloromethane	10	0.50	ug/L	10		103	70-130			12/04/13	
Dibromomethane	11	0.50	ug/L	10		111	70-130			12/04/13	
Dichlorodifluoromethane	11	0.50	ug/L	10		107	70-130			12/04/13	
Dichloromethane	11	0.50	ug/L	10		110	70-130			12/04/13	
Di-isopropyl ether (DIPE)	10	3.0	ug/L	10		104	70-130			12/04/13	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		105	70-130			12/04/13	
Ethylbenzene	11	0.50	ug/L	10		112	70-130			12/04/13	
Hexachlorobutadiene	12	0.50	ug/L	10		120	70-130			12/04/13	
Isopropylbenzene	10	0.50	ug/L	10		105	70-130			12/04/13	
m,p-Xylenes	22	0.50	ug/L	20		108	70-130			12/04/13	
Methyl-t-butyl ether	21	0.50	ug/L	20		107	70-130			12/04/13	
Naphthalene	9.7	0.50	ug/L	10		97	70-130			12/04/13	
n-Butylbenzene	11	0.50	ug/L	10		109	70-130			12/04/13	
n-Propylbenzene	12	0.50	ug/L	10		116	70-130			12/04/13	
o-Xylene	11	0.50	ug/L	10		114	70-130			12/04/13	
p-Isopropyltoluene	12	0.50	ug/L	10		117	70-130			12/04/13	
sec-Butylbenzene	12	0.50	ug/L	10		119	70-130			12/04/13	
Styrene	7.8	0.50	ug/L	10		78	70-130			12/04/13	
tert-Amyl Methyl Ether (TAME)	9.8	3.0	ug/L	10		98	70-130			12/04/13	
tert-Butyl alcohol (TBA)	14	2.0	ug/L	10		135	70-130			12/04/13	BS High
tert-Butylbenzene	12	0.50	ug/L	10		117	70-130			12/04/13	
Tetrachloroethene (PCE)	11	0.50	ug/L	10		109	70-130			12/04/13	
Toluene	11	0.50	ug/L	10		106	70-130			12/04/13	
trans-1,2-Dichloroethene	11	0.50	ug/L	10		114	70-130			12/04/13	
trans-1,3-Dichloropropene	11	0.50	ug/L	10		111	70-130			12/04/13	
Trichloroethene (TCE)	11	0.50	ug/L	10		106	70-130			12/04/13	
Trichlorofluoromethane	11	5.0	ug/L	10		107	70-130			12/04/13	
Vinyl Chloride	11	0.50	ug/L	10		110	70-130			12/04/13	
Surrogate: 1,2-Dichlorobenzene-d4	5.4			5.0		108	70-130			12/04/13	
Surrogate: Bromofluorobenzene	53			50		106	70-130			12/04/13	

Blank Spike Dup (A314277-BSD1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		104	70-130	1	30	12/04/13	
1,1,1-Trichloroethane	12	0.50	ug/L	10		123	70-130	5	30	12/04/13	
1,1,2,2-Tetrachloroethane	12	0.50	ug/L	10		123	70-130	18	30	12/04/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	12	10	ug/L	10		118	70-130	14	30	12/04/13	
1,1,2-Trichloroethane	12	0.50	ug/L	10		120	70-130	17	30	12/04/13	
1,1-Dichloroethane	10	0.50	ug/L	10		104	70-130	8	30	12/04/13	
1,1-Dichloroethene	13	0.50	ug/L	10		128	70-130	14	30	12/04/13	
1,1-Dichloropropene	12	0.50	ug/L	10		124	70-130	16	30	12/04/13	
1,2,3-Trichlorobenzene	11	0.50	ug/L	10		108	70-130	3	30	12/04/13	
1,2,4-Trichlorobenzene	11	0.50	ug/L	10		111	70-130	4	30	12/04/13	
1,2,4-Trimethylbenzene	12	0.50	ug/L	10		120	70-130	7	30	12/04/13	
1,2-Dichlorobenzene	12	0.50	ug/L	10		123	70-130	9	30	12/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A314277-BSD1)

1,2-Dichloroethane	11	0.50	ug/L	10		109	70-130	9	30	12/04/13	
1,2-Dichloropropane	9.7	0.50	ug/L	10		97	70-130	6	30	12/04/13	
1,3,5-Trimethylbenzene	12	0.50	ug/L	10		117	70-130	9	30	12/04/13	
1,3-Dichlorobenzene	13	0.50	ug/L	10		126	70-130	4	30	12/04/13	
1,3-Dichloropropane	11	0.50	ug/L	10		105	70-130	2	30	12/04/13	
1,4-Dichlorobenzene	12	0.50	ug/L	10		122	70-130	9	30	12/04/13	
2,2-Dichloropropane	13	0.50	ug/L	10		131	70-130	8	30	12/04/13	BS High
2-Butanone	9.3	5.0	ug/L	10		93	70-130	15	30	12/04/13	
2-Chlorotoluene	13	0.50	ug/L	10		130	70-130	11	30	12/04/13	
2-Hexanone	11	10	ug/L	10		113	70-130	1	30	12/04/13	
4-Chlorotoluene	13	0.50	ug/L	10		130	70-130	9	30	12/04/13	
4-Methyl-2-pentanone	11	5.0	ug/L	10		110	70-130	26	30	12/04/13	
Acetone	11	10	ug/L	10		114	70-130	5	30	12/04/13	
Benzene	10	0.50	ug/L	10		102	70-130	3	30	12/04/13	
Bromobenzene	13	0.50	ug/L	10		130	70-130	18	30	12/04/13	
Bromochloromethane	12	0.50	ug/L	10		117	70-130	4	30	12/04/13	
Bromodichloromethane	12	0.50	ug/L	10		117	70-130	5	30	12/04/13	
Bromoform	11	0.50	ug/L	10		110	70-130	8	30	12/04/13	
Bromomethane	28	0.50	ug/L	10		275	70-130	58	30	12/04/13	BS, X.0 High
Carbon Tetrachloride	12	0.50	ug/L	10		125	70-130	9	30	12/04/13	
Chlorobenzene	10	0.50	ug/L	10		103	70-130	4	30	12/04/13	
Chloroethane	12	0.50	ug/L	10		122	70-130	11	30	12/04/13	
Chloroform	13	0.50	ug/L	10		128	70-130	12	30	12/04/13	
Chloromethane	14	0.50	ug/L	10		135	70-130	15	30	12/04/13	BS High
cis-1,2-Dichloroethene	11	0.50	ug/L	10		113	70-130	3	30	12/04/13	
cis-1,3-Dichloropropene	12	0.50	ug/L	10		118	70-130	4	30	12/04/13	
Dibromochloromethane	11	0.50	ug/L	10		113	70-130	9	30	12/04/13	
Dibromomethane	11	0.50	ug/L	10		106	70-130	4	30	12/04/13	
Dichlorodifluoromethane	14	0.50	ug/L	10		139	70-130	26	30	12/04/13	BS High
Dichloromethane	12	0.50	ug/L	10		121	70-130	9	30	12/04/13	
Di-isopropyl ether (DIPE)	9.7	3.0	ug/L	10		97	70-130	7	30	12/04/13	
Ethyl tert-Butyl Ether (ETBE)	12	0.50	ug/L	10		119	70-130	13	30	12/04/13	
Ethylbenzene	12	0.50	ug/L	10		121	70-130	8	30	12/04/13	
Hexachlorobutadiene	12	0.50	ug/L	10		120	70-130	0	30	12/04/13	
Isopropylbenzene	13	0.50	ug/L	10		131	70-130	22	30	12/04/13	BS High
m,p-Xylenes	23	0.50	ug/L	20		116	70-130	7	30	12/04/13	
Methyl-t-butyl ether	26	0.50	ug/L	20		132	70-130	21	30	12/04/13	BS High
Naphthalene	8.8	0.50	ug/L	10		88	70-130	10	30	12/04/13	
n-Butylbenzene	11	0.50	ug/L	10		109	70-130	0	30	12/04/13	
n-Propylbenzene	13	0.50	ug/L	10		134	70-130	14	30	12/04/13	BS High
o-Xylene	14	0.50	ug/L	10		144	70-130	23	30	12/04/13	BS High
p-Isopropyltoluene	12	0.50	ug/L	10		122	70-130	4	30	12/04/13	
sec-Butylbenzene	12	0.50	ug/L	10		124	70-130	4	30	12/04/13	
Styrene	8.5	0.50	ug/L	10		85	70-130	8	30	12/04/13	
tert-Amyl Methyl Ether (TAME)	8.9	3.0	ug/L	10		89	70-130	9	30	12/04/13	
tert-Butyl alcohol (TBA)	8.1	2.0	ug/L	10		81	70-130	50	30	12/04/13	BS4.0

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A314277

Prepared: 12/3/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A314277-BSD1)

tert-Butylbenzene	12	0.50	ug/L	10		122	70-130	4	30	12/04/13	
Tetrachloroethene (PCE)	10	0.50	ug/L	10		104	70-130	4	30	12/04/13	
Toluene	12	0.50	ug/L	10		120	70-130	12	30	12/04/13	
trans-1,2-Dichloroethene	13	0.50	ug/L	10		126	70-130	10	30	12/04/13	
trans-1,3-Dichloropropene	12	0.50	ug/L	10		119	70-130	7	30	12/04/13	
Trichloroethene (TCE)	10	0.50	ug/L	10		105	70-130	1	30	12/04/13	
Trichlorofluoromethane	12	5.0	ug/L	10		123	70-130	13	30	12/04/13	
Vinyl Chloride	13	0.50	ug/L	10		129	70-130	16	30	12/04/13	
Surrogate: 1,2-Dichlorobenzene-d4	6.1			5.0		121	70-130			12/04/13	
Surrogate: Bromofluorobenzene	64			50		129	70-130			12/04/13	

EPA 525.2 - Quality Control

Batch: A314276

Prepared: 12/3/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank (A314276-BLK1)

Alachlor	ND	1.0	ug/L							12/03/13	
Atrazine	ND	0.50	ug/L							12/03/13	
Benzo(a)pyrene	ND	0.10	ug/L							12/03/13	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							12/03/13	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							12/03/13	
Bromacil	ND	10	ug/L							12/03/13	
Butachlor	ND	0.38	ug/L							12/03/13	
Diazinon	ND	0.25	ug/L							12/03/13	
Dimethoate	ND	10	ug/L							12/03/13	
Metolachlor	ND	0.50	ug/L							12/03/13	
Metribuzin	ND	0.50	ug/L							12/03/13	
Molinate	ND	2.0	ug/L							12/03/13	
Propachlor	ND	0.50	ug/L							12/03/13	
Simazine	ND	1.0	ug/L							12/03/13	
Thiobencarb	ND	1.0	ug/L							12/03/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.6			5.0		91	70-130			12/03/13	

Blank Spike (A314276-BS1)

Alachlor	0.54	1.0	ug/L	0.51		105	70-130			12/03/13	
Atrazine	0.52	0.50	ug/L	0.51		102	70-130			12/03/13	
Benzo(a)pyrene	0.11	0.10	ug/L	0.10		109	70-130			12/03/13	
Bis(2-ethylhexyl) adipate	3.4	3.0	ug/L	3.1		109	70-130			12/03/13	
Bis(2-ethylhexyl) phthalate	3.4	3.0	ug/L	3.1		111	70-130			12/03/13	
Bromacil	2.5	10	ug/L	2.0		120	70-130			12/03/13	
Butachlor	1.5	0.38	ug/L	1.3		114	70-130			12/03/13	
Diazinon	0.045	0.25	ug/L	0.051		88	70-130			12/03/13	
Dimethoate	0.60	10	ug/L	0.51		118	70-130			12/03/13	
Metolachlor	2.9	0.50	ug/L	2.6		114	70-130			12/03/13	
Metribuzin	2.8	0.50	ug/L	2.6		110	70-130			12/03/13	
Molinate	2.7	2.0	ug/L	2.6		107	70-130			12/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A314276

Prepared: 12/3/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A314276-BS1)

Propachlor	2.9	0.50	ug/L	2.6		113	70-130			12/03/13	
Simazine	0.41	1.0	ug/L	0.36		116	70-130			12/03/13	
Thiobencarb	0.59	1.0	ug/L	0.51		115	70-130			12/03/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.6			5.1		91	70-130			12/03/13	

Blank Spike Dup (A314276-BSD1)

Alachlor	0.52	1.0	ug/L	0.49		106	70-130	2	30	12/03/13	
Atrazine	0.52	0.50	ug/L	0.49		106	70-130	0	30	12/03/13	
Benzo(a)pyrene	0.11	0.10	ug/L	0.098		113	70-130	0	30	12/03/13	
Bis(2-ethylhexyl) adipate	3.1	3.0	ug/L	3.0		103	70-130	9	30	12/03/13	
Bis(2-ethylhexyl) phthalate	3.2	3.0	ug/L	3.0		108	70-130	6	30	12/03/13	
Bromacil	2.4	10	ug/L	2.0		120	70-130	4	30	12/03/13	
Butachlor	1.4	0.38	ug/L	1.2		110	70-130	7	30	12/03/13	
Diazinon	0.041	0.25	ug/L	0.049		84	70-130	8	30	12/03/13	
Dimethoate	0.59	10	ug/L	0.49		119	70-130	3	30	12/03/13	
Metolachlor	2.7	0.50	ug/L	2.5		111	70-130	7	30	12/03/13	
Metribuzin	2.7	0.50	ug/L	2.5		108	70-130	5	30	12/03/13	
Molinate	2.6	2.0	ug/L	2.5		106	70-130	5	30	12/03/13	
Propachlor	2.5	0.50	ug/L	2.5		101	70-130	15	30	12/03/13	
Simazine	0.38	1.0	ug/L	0.34		111	70-130	8	30	12/03/13	
Thiobencarb	0.56	1.0	ug/L	0.49		113	70-130	5	30	12/03/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.6			4.9		94	70-130			12/03/13	

Matrix Spike (A314276-MS1), Source: A3K1830-01

Alachlor	0.54	1.0	ug/L	0.50	ND	109	70-130			12/03/13	
Atrazine	0.53	0.50	ug/L	0.50	ND	108	70-130			12/03/13	
Benzo(a)pyrene	0.13	0.10	ug/L	0.099	ND	131	70-130			12/03/13	MS1.0 High
Bis(2-ethylhexyl) adipate	3.5	3.0	ug/L	3.0	ND	117	70-130			12/03/13	
Bis(2-ethylhexyl) phthalate	3.2	3.0	ug/L	3.0	ND	106	70-130			12/03/13	
Bromacil	2.4	10	ug/L	2.0	ND	124	70-130			12/03/13	
Butachlor	1.4	0.38	ug/L	1.2	ND	111	70-130			12/03/13	
Diazinon	0.049	0.25	ug/L	0.050	ND	98	70-130			12/03/13	
Dimethoate	0.56	10	ug/L	0.50	ND	114	70-130			12/03/13	
Metolachlor	2.8	0.50	ug/L	2.5	ND	113	70-130			12/03/13	
Metribuzin	2.7	0.50	ug/L	2.5	ND	109	70-130			12/03/13	
Molinate	2.6	2.0	ug/L	2.5	ND	106	70-130			12/03/13	
Propachlor	2.7	0.50	ug/L	2.5	ND	109	70-130			12/03/13	
Simazine	0.39	1.0	ug/L	0.35	ND	113	70-130			12/03/13	
Thiobencarb	0.56	1.0	ug/L	0.50	ND	114	70-130			12/03/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.6			5.0		92	70-130			12/03/13	

EPA 531.1 - Quality Control

Batch: A314122

Prepared: 11/26/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A314122-BLK1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A314122

Prepared: 11/26/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A314122-BLK1)

3-Hydroxycarbofuran	ND	3.0	ug/L							11/26/13	
Aldicarb	ND	3.0	ug/L							11/26/13	
Aldicarb Sulfone	ND	2.0	ug/L							11/26/13	
Aldicarb Sulfoxide	ND	3.0	ug/L							11/26/13	
Carbaryl	ND	5.0	ug/L							11/26/13	
Carbofuran	ND	5.0	ug/L							11/26/13	
Methomyl	ND	2.0	ug/L							11/26/13	
Oxamyl	ND	20	ug/L							11/26/13	

Blank Spike (A314122-BS1)

3-Hydroxycarbofuran	4.0	3.0	ug/L	4.2		97	80-120			11/26/13	
Aldicarb	4.5	3.0	ug/L	4.2		108	80-120			11/26/13	
Aldicarb Sulfone	4.4	2.0	ug/L	4.2		106	80-120			11/26/13	
Aldicarb Sulfoxide	4.5	3.0	ug/L	4.2		109	80-120			11/26/13	
Carbaryl	4.2	5.0	ug/L	4.2		102	80-120			11/26/13	
Carbofuran	4.5	5.0	ug/L	4.2		109	80-120			11/26/13	
Methomyl	4.5	2.0	ug/L	4.2		109	80-120			11/26/13	
Oxamyl	4.5	20	ug/L	4.2		107	80-120			11/26/13	

Blank Spike Dup (A314122-BSD1)

3-Hydroxycarbofuran	4.3	3.0	ug/L	4.2		104	80-120	7	20	11/26/13	
Aldicarb	4.5	3.0	ug/L	4.2		107	80-120	1	20	11/26/13	
Aldicarb Sulfone	4.3	2.0	ug/L	4.2		104	80-120	2	20	11/26/13	
Aldicarb Sulfoxide	4.4	3.0	ug/L	4.2		105	80-120	4	20	11/26/13	
Carbaryl	4.3	5.0	ug/L	4.2		103	80-120	2	20	11/26/13	
Carbofuran	4.5	5.0	ug/L	4.2		107	80-120	2	20	11/26/13	
Methomyl	4.6	2.0	ug/L	4.2		110	80-120	1	20	11/26/13	
Oxamyl	4.4	20	ug/L	4.2		106	80-120	1	20	11/26/13	

Matrix Spike (A314122-MS1), Source: A3K1656-01

3-Hydroxycarbofuran	3.8	3.0	ug/L	4.2	ND	92	65-135			11/26/13	
Aldicarb	4.7	3.0	ug/L	4.2	ND	105	65-135			11/26/13	
Aldicarb Sulfone	4.3	2.0	ug/L	4.2	ND	103	65-135			11/26/13	
Aldicarb Sulfoxide	4.3	3.0	ug/L	4.2	ND	104	65-135			11/26/13	
Carbaryl	4.2	5.0	ug/L	4.2	ND	102	65-135			11/26/13	
Carbofuran	4.3	5.0	ug/L	4.2	ND	97	65-135			11/26/13	
Methomyl	4.4	2.0	ug/L	4.2	ND	100	65-135			11/26/13	
Oxamyl	4.4	20	ug/L	4.2	ND	104	65-135			11/26/13	

EPA 547 - Quality Control

Batch: A314204

Prepared: 12/1/2013

Prep Method: EPA 547

Analyst: RJB

Blank (A314204-BLK1)

Glyphosate	ND	25	ug/L							12/01/13	
Surrogate: AMPA	100			100		103	70-130			12/01/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 547 - Quality Control

Batch: A314204

Prepared: 12/1/2013

Prep Method: EPA 547

Analyst: RJB

Blank Spike (A314204-BS1)

Glyphosate	100	25	ug/L	100		100	70-130			12/01/13	
Surrogate: AMPA	100			100		104	70-130			12/01/13	

Blank Spike Dup (A314204-BSD1)

Glyphosate	110	25	ug/L	100		106	70-130	6	30	12/01/13	
Surrogate: AMPA	100			100		102	70-130			12/01/13	

Matrix Spike (A314204-MS1), Source: A3K1910-01

Glyphosate	100	25	ug/L	100	ND	100	70-130			12/01/13	
Surrogate: AMPA	100			100		98	70-130			12/01/13	

EPA 548.1 - Quality Control

Batch: A314043

Prepared: 11/27/2013

Prep Method: EPA 548.1

Analyst: KHH

Blank (A314043-BLK1)

Endothall	ND	45	ug/L							11/29/13	
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Blank Spike (A314043-BS1)

Endothall	12	45	ug/L	20		61	60-111			11/29/13	
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Blank Spike Dup (A314043-BSD1)

Endothall	22	45	ug/L	20		108	60-111	55	46	11/29/13	BS3.0
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Matrix Spike (A314043-MS1), Source: A3K1568-06

Endothall	ND	45	ug/L	20	ND	0	10-122			11/29/13	MS1.0 Low
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EPA 549.2 - Quality Control

Batch: A314169

Prepared: 11/27/2013

Prep Method: EPA 549.2

Analyst: PYA

Blank (A314169-BLK1)

Diquat	ND	4.0	ug/L							12/03/13	
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Blank Spike (A314169-BS1)

Diquat	3.4	4.0	ug/L	4.0		85	70-130			12/03/13	
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Blank Spike Dup (A314169-BSD1)

Diquat	3.4	4.0	ug/L	4.0		86	70-130	1	30	12/03/13	
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Matrix Spike (A314169-MS1), Source: A3K1719-01

Diquat	3.4	4.0	ug/L	4.0	ND	84	70-130			12/03/13	
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Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of California - ELAP	1180	State of Nevada	CA000792009A
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA
State of California - NELAP	04227CA	State of Oregon	4017
State of Washington	C997	State of Oregon - NWTTPH	4021

BSK is not accredited under the NELAC program for the following parameters:

Boron	Silica (SiO ₂)	Strontium
Threshold Odor		

A3K1910



California American Water

Calif3295



11262013

Turnaround: Standard

Due Date: 12/12/2013



*Required Fields

Temp: 0.7

Company/Client Name*: California American Water	Report Attention*: Travis Peterson Additional cc's: Sarp Sekeroglu, RBF Consulting	Invoice To*: Accounts Payable PO#:	Phone*: (831) 646-3295/(831) 646-3269 Fax*: (831) 333-1343 E-mail*: susan.jacobson@amwater.com travis.peterson@amwater.com
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Address*: PO Box 951	City*: Monterey	State*: CA	Zip*: 93942-0951	Regulatory Carbon Copies CDPH <input type="checkbox"/> Fresno Co Merced Co <input type="checkbox"/> Tulare Co Madera Co <input type="checkbox"/> Other: _____ Regulatory Compliance <input type="checkbox"/> EDT to California DPH System Number: _____ <input type="checkbox"/> Geotracker # _____
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Project: Water Quality Analysis	Project #:	Reporting Options <input type="checkbox"/> Trace (J-Flag) <input type="checkbox"/> Swamp <input type="checkbox"/> EDD Type: _____ How would you like your completed results sent?*: <input checked="" type="checkbox"/> E-Mail <input type="checkbox"/> Fax <input type="checkbox"/> Mail TAT* <input checked="" type="checkbox"/> Standard - 10 Business Days <input type="checkbox"/> **Rush: Date Needed _____ **Surcharge
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Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled*		Matrix*	Comments / Station Code / WTRAX	Alkalinity, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC	Mass Balance-Dissolved: Cations and Anions	Dissolved Metals: Ba, B, Ca, Fe, Mg, Mn, K, Na, Sr, silica	Total Metals: Al, As, Cu, Fe, Mn, Zn	Dissolved: Bromide, Chloride, Nitrite, Fluoride, Sulfate, Orthophosphate-P	Dissolved: Ammonia, TKN, Phosphorus	Nitrate+Nitrite as N, Nitrate-NO3	EPA 524, 504, 505, 515, 525, 531, 547, 548, 549	EXT-Tritium, EXT-Lithium, EXT-Dissolved Iodide, EXT-Dioxin
		Date	Time											
1 27	MPWSP ML-E Zone #2 (100-110 ft bgs)	11-23-13	13:00	water	Seawater salinity levels. Lab to filter dissolved metals. Lab to filter Diss. Ammonia, TKN, P Okay to analyze out of hold time.	X	X	X	X	X	X	X	X	X

Field Parameters: Temp = 15.9 °C
 pH = 6.58
 TDS = 29,002 mg/L
 Turb = 1.73 NTU

Relinquished by: (Signature and Printed Name) <i>Nathan Reynolds</i> Nathan Reynolds	Company GEOSCIENCE	Date 11/25	Time 9:45 AM	Received by: (Signature and Printed Name) <i>Shelly Segger</i>	Company RBF Consulting
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Received by Lab: (Signature and Printed Name) <i>Lafon Cobb</i> Lafon Cobb	Date 11/26/13	Time 10:30	Payment Received at Delivery: Date: _____ Amount: _____ PIA#: _____ Init: _____	Shipping Method CONTRAC UPS GSO WALK-IN FED EX Courier: BW	Custody Seal: Y/N Chilling Process Begun: Y/N
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Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf

bw



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$			Were correct containers and preservatives received for the tests requested?					
	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA					
	Bottles Received	If samples were taken today, is there evidence that chilling has begun?			Were there bubbles in the VOA vials? (Volatiles Only)				
		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA				
		Did all bottles arrive unbroken and intact?			Was a sufficient amount of sample received?				
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA						
Did all bottle labels agree with COC?			Do samples have a hold time < 72 hours?						
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA						
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?			Was PM notified of discrepancies?						
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA			<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA						
			PM: _____ By/Time: _____						
250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)			Checks	Passed?					
Bacti $\text{Na}_2\text{S}_2\text{O}_3$			—	—					
None (P) ^{White Cap}			—	—	2C, 1B, 1A				
Cr6 Buffer (P) ^{Blue Cap}			pH 9-9.5	Y N					
HNO ₃ (P) ^{Red Cap}			—	—	2B				
H ₂ SO ₄ (P) ^{Yellow Cap}			pH ≤ 2	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1A				
NaOH (P) ^{Green Cap}			Cl, pH ≥ 12	Y N					
NaOH + ZnAc (P)			pH ≥ 9	Y N					
Dissolved Oxygen 300ml (g)			—	—					
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270			—	—	1A, 2A, 1B				
H ₂ SO ₄ (AG) ^{Yellow Label} O&G, Diesel			—	—					
Na ₂ S ₂ O ₃ 1 Liter (Brown P) 549			—	—	1C				
Na ₂ S ₂ O ₃ (AG) ^{Blue Label} 547, 515, 525, 548			—	—	2A, 2C				
Na ₂ S ₂ O ₃ (AG) ^{Blue Label} THMs 524-2 or 524-3			—	—					
Na ₂ S ₂ O ₃ (CG) ^{Blue Label} 504, 505			—	—	6V				
Na ₂ S ₂ O ₃ + MCAA (CG) ^{Orange Label} 531			pH = 3	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1V				
NH ₄ Cl (AG) ^{Purple Label} 552			—	—					
EDA (AG) ^{Brown Label} DBPs			—	—	1A				
Ascorbic + Maleic (AG) ^{Lt Green Label} 524.3			—	—					
HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624			—	—	3V				
Buffer pH 4 (CG)			—	—					
None (CG)			—	—					
H ₃ PO ₄ (CG) ^{Salmon Label}			—	—					
Other:									
Asbestos 1Liter Plastic w/ Foil			—	—					
Low Level Hg / Metals Double Baggie			—	—					
Bottled Water			—	—					
Clear Glass Jar: 250 / 500 / 1 Liter			—	—					
Soil Tube Brass / Steel / Plastic			—	—					
Tedlar Bag / Plastic Bag			—	—					
Split	Container			Preservative			Date/Time/Initials		
	S	P					S	P	
	S	P					S	P	
Comments									

Labeled by: AR @ 1558

Labels checked by: G-114 @ 1613

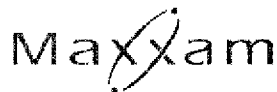
RUSH Paged by: _____

External



A3K1910





Your Project #: A3K1910
 Your C.O.C. #: na

Attention: Michael Ng

BSK Analytical Laboratories
 1414 Stanislaus Street
 Fresno, CA
 USA 93706

Report Date: 2013/12/11

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B3K9569

Received: 2013/12/04, 13:00

Sample Matrix: Water
 # Samples Received: 1

Analyses	Quantity Extracted	Date	Date	Laboratory Method	Reference
		2013/12/07	2013/12/10		
2,3,7,8-TCDD in Water (1613B)	1	2013/12/07	2013/12/10	BRL SOP-00410	EPA 1613B mod.

Remarks:

The lab certifies that the test results meet all requirements of NELAC, where applicable.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

U = Undetected at the limit of quantitation.

J = Estimated concentration between the EDL & RDL.

B = Blank Contamination.

Q = One or more quality control criteria failed.

Encryption Key

Ivana Vukovic
 12 Dec 2013 14:17:01 -05:00

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ivana Vukovic, Env Project Manager

Email: IVukovic@maxxam.ca

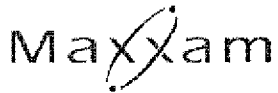
Phone# (905) 817-5700

=====

This report has been generated and distributed using a secure automated process.

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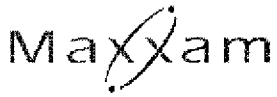


Maxxam Job #: B3K9569
Report Date: 2013/12/11

BSK Analytical Laboratories
Client Project #: A3K1910

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UD8357						
Sampling Date		2013/11/23 13:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	A3K1910-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Dioxins & Furans								
2,3,7,8-Tetra CDD *	pg/L	0.90 U	0.90	4.0	1.00	0.900		3452001
TOTAL TOXIC EQUIVALENCY	pg/L					0.900		
Surrogate Recovery (%)								
37CL4 2378 Tetra CDD *	%	82						3452001
C13-2378 TetraCDD *	%	89						3452001
EDL = Estimated Detection Limit RDL = Reportable Detection Limit TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient, The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested. WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds QC Batch = Quality Control Batch * CDD = Chloro Dibenzo-p-Dioxin								



Maxxam Job #: B3K9569
Report Date: 2013/12/11

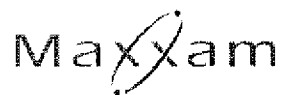
BSK Analytical Laboratories
Client Project #: A3K1910

TEST SUMMARY

Maxxam ID: UD8357
Sample ID: A3K1910-01
Matrix: Water

Collected: 2013/11/23
Shipped: [blank]
Received: 2013/12/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
2,3,7,8-TCDD in Water (1613B)	HRMS/MS	3452001	2013/12/07	2013/12/10	Vica Cleranic

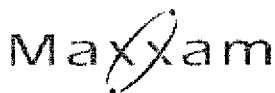


Maxxam Job #: B3K9569
Report Date: 2013/12/11

BSK Analytical Laboratories
Client Project #: A3K1910

GENERAL COMMENTS

Results relate only to the items tested.



Maxxam Job #: B3K9569
 Report Date: 2013/12/11

BSK Analytical Laboratories
 Client Project #: A3K1910

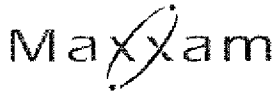
QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	Units	QC Limits
3452001	VCI	Spiked Blank	2,3,7,8-Tetra CDD	2013/12/10		83	%	67 - 158
	VCI	Spiked Blank	37CL4 2378 Tetra CDD	2013/12/10		71	%	40 - 130
			C13-2378 TetraCDD	2013/12/10		90	%	24 - 164
		Method Blank	2,3,7,8-Tetra CDD	2013/12/10	0.92, EDL=0.92		pg/L	
			37CL4 2378 Tetra CDD	2013/12/10		80	%	40 - 130
			C13-2378 TetraCDD	2013/12/10		81	%	24 - 164

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.



Maxxam Job #: B3K9569
Report Date: 2013/12/11

BSK Analytical Laboratories
Client Project #: A3K1910

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Owen Cosby, BSc.C.Chem, Supervisor, HRMS Services

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SUBCONTRACT ORDER
A3K1910

Ivana Vukovic
B3K9569
JW ENV-996

SENDING LABORATORY:

BSK Associates
1914 Steeles St
Preston, CA 95760
Phone: 925-497-2808
Fax: 925-497-0530
Account Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Markam Analytics
PO Box 57437, Station A
Toronto, ON M5W 5B5
Phone: (416) 754-8784
Fax: (416) 754-8784
Accounting/Day's Standard
20 Deliverables - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

Sample ID	Sample Desc	Sample Date
A3K1910-01	MilliwSP ML 6 Zone 10 (100-170 fags)	11/23/2018 13:00

Matrix: Water

Analysis: *Chloride, Nitrate, Sulfate*
EPA 813.2, 813.1, 813.0

Released By	Date	Received By	Date
<i>[Signature]</i>	<i>[Date]</i>	<i>[Signature]</i>	<i>[Date]</i>

Released By	Date	Received By	Date
<i>[Signature]</i>	<i>[Date]</i>	<i>[Signature]</i>	<i>[Date]</i>

Page 1 of 3
30, 47, 50°C
60, 82, 147°C



Certificate of Analysis

Report Date: 12/17/13 11:10
Received Date: 12/03/13 12:30
Turnaround Time: Normal

Project: A3K1910

Phones: (559) 497-2888
Fax: (559) 485-6935
P.O. #:

Attn: Michael Ng
Client: BSK Analytical Laboratories
550 West Locust Avenue
Fresno, CA 93650

Dear Michael Ng :

Enclosed are the results of analyses for samples received 12/3/2013 with the Chain of Custody document. The samples were received in good condition, at 3.0 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab Sample ID: 3L03048-01	Sample ID: A3K1910-01	Matrix: Water								
Sampled by: Client	Sampled: 11/23/13 13:00									
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Lithium, Total	330		10	ug/l	1	EPA 200.7	12/10/13	12/11/13 13:06	W3L0516	
Iodide, Dissolved	380		250	ug/l	25	EPA 9056A	12/12/13	12/12/13 22:54	W3L0678	



Certificate of Analysis

Quality Control Section

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

Batch W3L0678 - EPA 9056A

Blank (W3L0678-BLK1)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Iodide, Dissolved		ND		ug/l						
LCS (W3L0678-BS1)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Iodide, Dissolved		38.9		ug/l	40.0	97	85-115			
Duplicate (W3L0678-DUP1)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Source: 3L03045-01										
Iodide, Dissolved	623	661		ug/l				6	20	
Duplicate (W3L0678-DUP2)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Source: 3L03048-01										
Iodide, Dissolved	378	336		ug/l				12	20	
Duplicate (W3L0678-DUP3)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Source: 3L10011-01										
Iodide, Dissolved	644	658		ug/l				2	20	
Matrix Spike (W3L0678-MS1)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Source: 3L10011-01										
Iodide, Dissolved	644	1100		ug/l	500	92	80-120			
Matrix Spike Dup (W3L0678-MSD1)					Prepared: 12/12/13	Analyzed: 12/12/13 22:54				
Source: 3L10011-01										
Iodide, Dissolved	644	1100		ug/l	500	92	80-120	0.2	20	

Metals by EPA 200 Series Methods - Quality Control

Batch W3L0516 - EPA 200.7

Blank (W3L0516-BLK1)					Prepared: 12/10/13	Analyzed: 12/11/13 12:56				
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit	
Lithium, Total		ND		ug/l						
LCS (W3L0516-BS1)					Prepared: 12/10/13	Analyzed: 12/11/13 12:59				
Lithium, Total		965		ug/l	1000	97	85-115			
Matrix Spike (W3L0516-MS1)					Prepared: 12/10/13	Analyzed: 12/11/13 13:29				
Source: 3L10044-04										
Lithium, Total	37.3	1020		ug/l	1000	98	70-130			
Matrix Spike Dup (W3L0516-MSD1)					Prepared: 12/10/13	Analyzed: 12/11/13 13:32				
Source: 3L10044-04										
Lithium, Total	37.3	995		ug/l	1000	96	70-130	2	30	

3L03048



Certificate of Analysis

Notes:

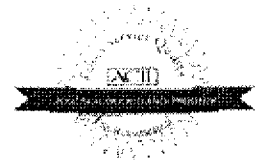
The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Kim G Tu (Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

- ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
- Sub Subcontracted analysis, original report enclosed.
- DL Method Detection Limit
- RL Method Reporting Limit
- MDA Minimum Detectable Activity
- NR Not Reportable



SUBCONTRACT ORDER

A3K1910

3L03048

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E Clark Avenue
City of Industry, CA 91745-1398
Phone: (626) 336-2139
Fax: (626) 336-2634
Turnaround (Days): ~~Standard~~
QC Deliverables: I ~~Std~~ III IV

Sample ID	Samp Desc	Sample Date
A3K1910-01	MPWSP ML-6 Zone #2 (100-110 ft bgs)	11/23/2013 13:00

Matrix: Water

Analysis	500 ml P W / NONE	
EXT-Iodide		Dissolved
EXT-Miscellaneous	500 ml P W / HNO ₃	Lithium

Released By		Date	12/2/13	Received By	Ontrae	Date	
Released By	Ontrae	Date		Received By	Jamae	Date	12/3/13 12:30 3.0°C



Weck Laboratories, Inc.

Environmental and Analytical Services - Since 1964

Sample Receipt Acknowledgement

WORK ORDER: 3L03048

Printed: 12/4/2013 2:24:29PM

Client: BSK Analytical Laboratories
Project: MetalsProject Manager: Kim G Tu
Project Number: A3K1910**Report To:**BSK Analytical Laboratories
Michael Ng
550 West Locust Avenue
Fresno, CA 93650
Phone: (559) 497-2888
Fax: (559) 485-6935**Invoice To:**BSK Analytical Laboratories
Accounts Payable - Anise Foote
550 West Locust Avenue
Fresno, CA 93650
Phone: (559) 497-2888
Fax: (559) 485-6935**Date Due:** 12/17/13 15:00 (10 day TAT)

Received By: Jaime Gomez

Date Received: 12/03/13 12:30

Logged In By: Jaime Gomez

Date Logged In: 12/03/13 14:58

Samples Received at:	3°C	All containers intact:	Yes	Chain of custody completed	Yes
Number of Ice chests/packages:		Custody seals present:		Sample labels & COC agree	Yes
Appropriate Sample Containers:		Custody seals intact:		Samples preserved properly	Yes
		Samples received on ice		Sample volume sufficient	Yes
		Custody Seals	No	Sufficient holding time for all tests	Yes

Analysis	TAT	Expires	Comments
3L03048-01 A3K1910-01 [Water] Sampled 11/23/13 13:00 Pacific			
Iodide water 9056M_Diss	10	12/21/13 13:00	
200.7 Li	10	05/22/14 13:00	

Comments:

12/4/2013

Authorized Signature

Date

Note:

If any of the information included in this sample receipt acknowledgement is incorrect (sample information, analysis, etc), please contact the lab at (626) 336-2139. Thank you.



January 06, 2014

Mr. Michael Ng
BSK Analytical Laboratories
1414 Stanislaus St.
Fresno, CA 93706

RE: Project: A3K1910
Pace Project No.: 30109476

Dear Mr. Ng:

Enclosed are the analytical results for sample(s) received by the laboratory on December 12, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins

jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: A3K1910
Pace Project No.: 30109476

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: A3K1910
Pace Project No.: 30109476

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30109476001	A3K1910-01	Water	11/23/13 13:00	12/12/13 10:50

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, Inc..



SAMPLE ANALYTE COUNT

Project: A3K1910
Pace Project No.: 30109476

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30109476001	A3K1910-01	EPA 906.0	SLA	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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PROJECT NARRATIVE

Project: A3K1910
Pace Project No.: 30109476

Method: EPA 906.0
Description: 906.0 Tritium
Client: BSK Analytical Laboratories
Date: January 06, 2014

General Information:

1 sample was analyzed for EPA 906.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: A3K1910
Pace Project No.: 30109476

Sample: A3K1910-01	Lab ID: 30109476001	Collected: 11/23/13 13:00	Received: 12/12/13 10:50	Matrix: Water		
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Tritium	EPA 906.0	-15.7 ± 129 (230)	pCi/L	12/21/13 12:20	10028-17-8	

REPORT OF LABORATORY ANALYSIS

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Date: 01/06/2014 12:02 PM

Page 6 of 11

QUALITY CONTROL DATA

Project: A3K1910
Pace Project No.: 30109476

QC Batch:	RADC/18120	Analysis Method:	EPA 906.0
QC Batch Method:	EPA 906.0	Analysis Description:	906.0 Tritium
Associated Lab Samples:	30109476001		

METHOD BLANK:	671627	Matrix:	Water
Associated Lab Samples:	30109476001		

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Tritium	-43.1 ± 116 (211)	pCi/L	12/21/13 09:16	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: A3K1910
Pace Project No.: 30109476

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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Date: 01/06/2014 12:02 PM

Page 8 of 11



SUBCONTRACT ORDER

A3K1910

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical Radiochem
1638 Roseytown Rd Ste 2,3,4
Greensburg, PA 15601
Phone: (724) 850-5600
Fax: (724) 722-5208
Turnaround (Days): ~~Standard~~
QC Deliverables: I ~~Std~~ III IV

30109476

Sample ID	Samp Desc	Sample Date
A3K1910-01	MPWSP ML-6 Zone #2 (100-110 ft bgs)	11/23/2013 13:00 001
	Matrix: Water	
	Analysis: 250 mL AG w/ NONE	
	EXT-Tritium	Non preserved glass container

Released By: Date: 10/15/13
 Received By: Date: 12-12-13 1050

Released By: _____ Date: _____
 Received By: _____ Date: _____

Sample Condition Upon Receipt



Client Name: Bsk

Project # 30109476

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____
 Tracking #: 1Z 93Y 921 6361 574770

Optional
 Proj. Due Date: _____
 Proj. Name: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other Styrofoam, Plastic Bag

Thermometer Used 5 6 7 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature N/A Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: PAC 11-12-13

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <u>sample is unpreserved</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, colform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	initial when completed <u>PAC</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

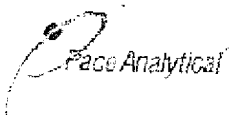
Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 12/13/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Project Number: 30109426
 Client Name: BSX

Item No	Matrix Code	Sample Description
001	WT	Glass Jar (120 / 250 / 500 / 1L)
		Soil kit (2 SB, 1M, soil jar)
		Chemistry (250 / 500 / 1L)
		Organics (1L)
		Nutrient (250 / 500)
		Phenolics (250 ml)
		TOC (40 ml / 250 ml)
		TOX (250 ml)
		Total Metals
		Dissolved Metals preserved Y
		N
		O & G (1L)
		TPH (1L)
		MOA (40 ml 30 ml)
		Cyanide (250 ml)
		Sulfide (500 ml)
		Bacteria (120 ml)
		Wipes / swipes smear/ filter
		Rauchern Nalgene (125 / 250 / 500)
		Rauchern Nalgene (12 gal. / 1.gal.)
		Cubtainer (500 ml / 4L)
		Zetec
		Other
		Other

NEW 12-17-13



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Travis Peterson
California American Water
836 Carmel Ave.
Monterey, CA 93940

RE: Report for A3I2214 Water Quality Analysis

Dear Travis Peterson,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 9/26/2013. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Michael Ng, Project Manager

If additional clarification of any information is required, please contact your Project Manager, Michael Ng, at (800) 877-8310 or (559) 497-2888 x118.



Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: California American Water
Report To: Travis Peterson
Project #: Water Quality Analysis
Received: 9/26/2013 - 17:52
Report Due: 10/11/2013

Invoice To: California American Water
Invoice Attn: Accounts Payable
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 4.4	COC/Labels Agree
	Received On Wet Ice
	Packing Material - Bubble Wrap
	Packing Material - Foam
	Sample(s) were received in temperature range.
	Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- DL01 Sample required dilution due to matrix or high concentration of non-target analyte.
- HT01 Holding time exceeded. Sample was received past holding time.
- HT08 Holding time exceeded. The holding time for this analysis is a recommendation and is not mandated by any state or federal agency.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- SR02 Surrogate recovery was above acceptance limits. No target analytes were detected in the sample.
- X01 MS/MSD data not available as parent sample was not reportable
- X01a Sample filtered prior to analysis per client request

Report Distribution

Recipient(s)	Report Format
Travis Peterson	Final.rpt
Sarp Sekeroglu	Final.rpt

Certificate of Analysis

Sample ID: A312214-01
Sampled By: Sarp Sekeroglu
Sample Description: Water Sample

Sample Date - Time: 09/24/13 - 15:00

Matrix: Water

Sample Type: Grab

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Alkalinity as CaCO3	SM 2320 B	190	3.0	mg/L	1	A311377	09/27/13	09/27/13	
Bicarbonate as CaCO3	SM 2320 B	190	3.0	mg/L	1	A311377	09/27/13	09/27/13	
Carbonate as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A311377	09/27/13	09/27/13	
Hydroxide as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A311377	09/27/13	09/27/13	
Ammonia as N	SM 4500-NH3 G	0.14	0.10	mg/L	1	A311778	10/07/13	10/08/13	X01a
Bromide	EPA 300.1	0.80	0.10	mg/L	20	A311494	09/30/13	09/30/13	X01
Surrogate: Dichloroacetate	EPA 300.1	106 %	Acceptable range: 90-115 %			Qualifiers - X01			
Chloride	EPA 300.0	250	5.0	mg/L	5	A311412	09/28/13	09/28/13	
Color, Apparent	SM 2120 B	5.0	1.0	CU	1	A311368	09/27/13 15:30	09/27/13	HT01
Conductivity @ 25C	SM 2510 B	1200	1.0	umhos/cm	1	A311377	09/27/13	09/27/13	
Fluoride	EPA 300.0	0.10	0.10	mg/L	1	A311437	09/30/13	09/30/13	
Mass Balance-Anions		12		meq/L					
Mass Balance-Dissolved Cations		11		meq/L					
MBAS, Calculated as LAS, mol wt 340	SM 5540 C	ND	0.050	mg/L	1	A311369	09/27/13 15:01	09/27/13	HT01
Nitrate as NO3	EPA 300.0	ND	5.0	mg/L	5	A311412	09/28/13 04:03	09/28/13	DL01, HT01
Nitrite as N	EPA 300.0	ND	0.25	mg/L	5	A311412	09/28/13 04:03	09/28/13	DL01, HT01
Threshold Odor	SM 2150 B	2.0	1.0	T.O.N.	1	A311368	09/27/13 10:27	09/27/13	HT08
Orthophosphate as P	SM 4500-P E	0.14	0.050	mg/L	5	A311398	09/27/13 15:25	09/27/13	HT01
pH (1)	SM 4500-H+ B	8.2		pH Units	1	A311377	09/27/13	09/27/13	
pH Temperature in °C		21.7							
Phosphorus - Dissolved (1)	EPA 365.4	0.11	0.10	mg/L	1	A311800	10/07/13	10/09/13	
Sulfate as SO4	EPA 300.0	24	10	mg/L	5	A311412	09/28/13	09/28/13	
Total Dissolved Solids	SM 2540C	630	5.0	mg/L	1	A311537	10/01/13	10/04/13	
Total Kjeldahl Nitrogen - Dissolved (1)	EPA 351.2	ND	1.0	mg/L	1	A311800	10/07/13	10/09/13	
Total Oxidizable Nitrogen, as N - Dissolved (1)	SM 4500-NO3 F	ND	0.10	mg/L	1	A311810	10/07/13	10/07/13	
Turbidity	SM 2130 B	0.67	0.10	NTU	1	A311368	09/27/13 15:30	09/27/13	HT01

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.7	ND	0.050	mg/L	1	A311444	09/30/13	10/01/13	
Arsenic	EPA 200.8	ND	2.0	ug/L	1	A311444	09/30/13	10/08/13	
Barium - Dissolved (1)	EPA 200.7	0.11	0.050	mg/L	1	A311497	10/01/13	10/04/13	
Boron - Dissolved (1)	EPA 200.7	ND	0.10	mg/L	1	A311497	10/01/13	10/04/13	
Calcium	EPA 200.7	52	0.10	mg/L	1	A311444	09/30/13	10/01/13	
Calcium - Dissolved (1)	EPA 200.7	50	0.10	mg/L	1	A311497	10/01/13	10/04/13	
Copper	EPA 200.8	ND	5.0	ug/L	1	A311444	09/30/13	10/08/13	
Hardness as CaCO3	SM 2340B	240	0.41	mg/L					
Iron	EPA 200.7	0.20	0.030	mg/L	1	A311444	09/30/13	10/01/13	
Iron - Dissolved (1)	EPA 200.7	ND	0.030	mg/L	1	A311497	10/01/13	10/04/13	
Magnesium	EPA 200.7	28	0.10	mg/L	1	A311444	09/30/13	10/01/13	

Certificate of Analysis

Sample ID: A312214-01
Sampled By: Sarp Sekeroglu
Sample Description: Water Sample

Sample Date - Time: 09/24/13 - 15:00
Matrix: Water
Sample Type: Grab

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Magnesium - Dissolved (1)	EPA 200.7	27	0.10	mg/L	1	A311497	10/01/13	10/04/13	
Manganese	EPA 200.7	0.19	0.010	mg/L	1	A311444	09/30/13	10/01/13	
Manganese - Dissolved (1)	EPA 200.7	0.18	0.010	mg/L	1	A311497	10/01/13	10/04/13	
Potassium - Dissolved (1)	EPA 200.7	6.0	2.0	mg/L	1	A311497	10/01/13	10/04/13	
Silica (SiO2) - Dissolved (1)	EPA 200.7	30	0.20	mg/L	1	A311497	10/01/13	10/04/13	
Sodium - Dissolved (1)	EPA 200.7	140	1.0	mg/L	1	A311497	10/01/13	10/04/13	
Strontium - Dissolved (1)	EPA 200.8	400	5.0	ug/L	5	A311497	10/01/13	10/08/13	
Zinc	EPA 200.7	ND	0.050	mg/L	1	A311444	09/30/13	10/01/13	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A311476	09/30/13	10/02/13	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A311476	09/30/13	10/02/13	
Surrogate: TCMX	EPA 504.1	150 %	Acceptable range: 70-130 %			Qualifiers - SR02			
<u>Organohalide Pesticides and PCBs by GC-ECD</u>									
Aldrin	EPA 505	ND	0.075	ug/L	1	A311476	09/30/13	10/02/13	
Chlordane	EPA 505	ND	0.10	ug/L	1	A311476	09/30/13	10/02/13	
Chlorothalonil	EPA 505	ND	5.0	ug/L	1	A311476	09/30/13	10/02/13	
Dieldrin	EPA 505	ND	0.020	ug/L	1	A311476	09/30/13	10/02/13	
Endrin	EPA 505	ND	0.10	ug/L	1	A311476	09/30/13	10/02/13	
Heptachlor	EPA 505	ND	0.010	ug/L	1	A311476	09/30/13	10/02/13	
Heptachlor Epoxide	EPA 505	ND	0.010	ug/L	1	A311476	09/30/13	10/02/13	
Hexachlorobenzene	EPA 505	ND	0.50	ug/L	1	A311476	09/30/13	10/02/13	
Hexachlorocyclopentadiene	EPA 505	ND	1.0	ug/L	1	A311476	09/30/13	10/02/13	
Lindane	EPA 505	ND	0.20	ug/L	1	A311476	09/30/13	10/02/13	
Methoxychlor	EPA 505	ND	10	ug/L	1	A311476	09/30/13	10/02/13	
PCB Aroclor Screen	EPA 505	ND	0.50	ug/L	1	A311476	09/30/13	10/02/13	
Toxaphene	EPA 505	ND	1.0	ug/L	1	A311476	09/30/13	10/02/13	
Trifluralin	EPA 505	ND	1.0	ug/L	1	A311476	09/30/13	10/02/13	
Surrogate: TCMX	EPA 505	150 %	Acceptable range: 70-130 %			Qualifiers - SR02			
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A311419	09/29/13	10/04/13	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A311419	09/29/13	10/04/13	
2,4-D	EPA 515.3	ND	10	ug/L	1	A311419	09/29/13	10/04/13	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A311419	09/29/13	10/04/13	
Dalapon	EPA 515.3	ND	10	ug/L	1	A311419	09/29/13	10/04/13	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A311419	09/29/13	10/04/13	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A311419	09/29/13	10/04/13	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A311419	09/29/13	10/04/13	

Certificate of Analysis

Sample ID: A312214-01
 Sampled By: Sarp Sekeroglu
 Sample Description: Water Sample

Sample Date - Time: 09/24/13 - 15:00
 Matrix: Water
 Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chlorinated Acid Herbicides by GC-ECD									
Picloram	EPA 515.3	ND	1.0	ug/L	1	A311419	09/29/13	10/04/13	
Surrogate: DCPAA	EPA 515.3	123 %	Acceptable range: 70-130 %						
Volatile Organics by GC-MS									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A311594	10/02/13	10/03/13	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A311594	10/02/13	10/03/13	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A311594	10/02/13	10/03/13	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A311594	10/02/13	10/03/13	
Acetone	EPA 524.2	ND	10	ug/L	1	A311594	10/02/13	10/03/13	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	

Certificate of Analysis

Sample ID: A312214-01
 Sampled By: Sarp Sekeroglu
 Sample Description: Water Sample

Sample Date - Time: 09/24/13 - 15:00
 Matrix: Water
 Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics by GC-MS									
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A311594	10/02/13	10/03/13	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A311594	10/02/13	10/03/13	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A311594	10/02/13	10/03/13	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A311594	10/02/13	10/03/13	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	93 %							Acceptable range: 70-130 %
Surrogate: Bromofluorobenzene	EPA 524.2	98 %							Acceptable range: 70-130 %
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
Semi-Volatile Organics by GC-MS									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A311693	10/03/13	10/04/13	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A311693	10/03/13	10/04/13	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A311693	10/03/13	10/04/13	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A311693	10/03/13	10/04/13	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A311693	10/03/13	10/04/13	
Bromacil	EPA 525.2	ND	10	ug/L	1	A311693	10/03/13	10/04/13	
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A311693	10/03/13	10/04/13	

Certificate of Analysis

Sample ID: A312214-01
Sampled By: Sarp Sekeroglu
Sample Description: Water Sample

Sample Date - Time: 09/24/13 - 15:00
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Semi-Volatile Organics by GC-MS</u>									
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A311693	10/03/13	10/04/13	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A311693	10/03/13	10/04/13	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A311693	10/03/13	10/04/13	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A311693	10/03/13	10/04/13	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A311693	10/03/13	10/04/13	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A311693	10/03/13	10/04/13	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A311693	10/03/13	10/04/13	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A311693	10/03/13	10/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	106 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A311765	10/06/13	10/11/13	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A311765	10/06/13	10/11/13	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A311765	10/06/13	10/11/13	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A311765	10/06/13	10/11/13	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A311765	10/06/13	10/11/13	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A311765	10/06/13	10/11/13	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A311765	10/06/13	10/11/13	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A311765	10/06/13	10/11/13	BS1.0
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A311409	09/27/13	09/28/13	
Surrogate: AMPA	EPA 547	110 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A311487	09/30/13	10/02/13	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.0	ug/L	1	A311486	09/30/13	10/03/13	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A311412

Prepared: 9/28/2013

Prep Method: Method Specific Preparation

Analyst: AJT

Blank (A311412-BLK1)

Chloride	ND	1.0	mg/L							09/28/13	
Nitrate as NO3	ND	1.0	mg/L							09/28/13	
Nitrite as N	ND	0.050	mg/L							09/28/13	
Sulfate as SO4	ND	2.0	mg/L							09/28/13	

Blank Spike (A311412-BS1)

Chloride	51	1.0	mg/L	50		101	90-110			09/28/13	
Nitrate as NO3	50	1.0	mg/L	50		101	90-110			09/28/13	
Nitrite as N	0.48	0.050	mg/L	0.50		97	90-110			09/28/13	
Sulfate as SO4	51	2.0	mg/L	50		102	90-110			09/28/13	

Blank Spike Dup (A311412-BSD1)

Chloride	50	1.0	mg/L	50		100	90-110	1	20	09/28/13	
Nitrate as NO3	50	1.0	mg/L	50		100	90-110	1	20	09/28/13	
Nitrite as N	0.48	0.050	mg/L	0.50		95	90-110	1	20	09/28/13	
Sulfate as SO4	50	2.0	mg/L	50		100	90-110	2	20	09/28/13	

Matrix Spike (A311412-MS1), Source: A3I2291-01

Chloride	160	2.0	mg/L	100	60	97	80-120			09/28/13	
Nitrate as NO3	110	2.0	mg/L	100	9.0	99	80-120			09/28/13	
Nitrite as N	1.0	0.10	mg/L	1.0	ND	104	80-120			09/28/13	
Sulfate as SO4	180	4.0	mg/L	100	81	95	80-120			09/28/13	

Matrix Spike Dup (A311412-MSD1), Source: A3I2291-01

Chloride	160	2.0	mg/L	100	60	97	80-120	0	20	09/28/13	
Nitrate as NO3	110	2.0	mg/L	100	9.0	99	80-120	0	20	09/28/13	
Nitrite as N	1.1	0.10	mg/L	1.0	ND	106	80-120	1	20	09/28/13	
Sulfate as SO4	180	4.0	mg/L	100	81	97	80-120	1	20	09/28/13	

EPA 300.0 - Quality Control

Batch: A311437

Prepared: 9/30/2013

Prep Method: Method Specific Preparation

Analyst: n.a.

Blank (A311437-BLK1)

Fluoride	ND	0.10	mg/L							09/30/13	
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Blank Spike (A311437-BS1)

Fluoride	0.50	0.10	mg/L	0.50		100	90-110			09/30/13	
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Blank Spike Dup (A311437-BSD1)

Fluoride	0.48	0.10	mg/L	0.50		97	90-110	3	10	09/30/13	
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Matrix Spike (A311437-MS1), Source: A3I2008-01

Fluoride	1.6	0.20	mg/L	1.0	0.53	103	80-120			09/30/13	
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Matrix Spike (A311437-MS2), Source: A3I2114-01

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A311437

Prepared: 9/30/2013

Prep Method: Method Specific Preparation

Analyst: n.a.

Matrix Spike (A311437-MS2), Source: A3I2114-01

Fluoride	1.1	0.20	mg/L	1.0	ND	100	80-120			09/30/13	
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Matrix Spike Dup (A311437-MSD1), Source: A3I2008-01

Fluoride	1.6	0.20	mg/L	1.0	0.53	106	80-120	2	10	09/30/13	
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Matrix Spike Dup (A311437-MSD2), Source: A3I2114-01

Fluoride	1.1	0.20	mg/L	1.0	ND	101	80-120	1	10	09/30/13	
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EPA 300.1 - Quality Control

Batch: A311494

Prepared: 9/30/2013

Prep Method: Method Specific Preparation

Analyst: LJL

Blank (A311494-BLK1)

Bromide	ND	0.0050	mg/L							09/30/13	
Surrogate: Dichloroacetate	0.506			0.50		101	90-115			09/30/13	

Blank Spike (A311494-BS1)

Bromide	0.20	0.0050	mg/L	0.20		98	85-115			09/30/13	
Surrogate: Dichloroacetate	0.521			0.50		104	90-115			09/30/13	

Blank Spike Dup (A311494-BSD1)

Bromide	0.20	0.0050	mg/L	0.20		98	85-115	1	10	09/30/13	
Surrogate: Dichloroacetate	0.522			0.50		104	90-115			09/30/13	

EPA 351.2 - Quality Control

Batch: A311800

Prepared: 10/7/2013

Prep Method: Digestion

Analyst: LJL

Blank (A311800-BLK1)

Total Kjeldahl Nitrogen - Dissolved (1)	ND	1.0	mg/L							10/09/13	
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Blank Spike (A311800-BS1)

Total Kjeldahl Nitrogen - Dissolved (1)	10	1.0	mg/L	10		104	90-110			10/09/13	
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Blank Spike Dup (A311800-BSD1)

Total Kjeldahl Nitrogen - Dissolved (1)	10	1.0	mg/L	10		104	90-110	1	10	10/09/13	
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Matrix Spike (A311800-MS1), Source: A3I2260-01

Total Kjeldahl Nitrogen - Dissolved (1)	11	1.0	mg/L	10	ND	103	90-110			10/09/13	
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Matrix Spike Dup (A311800-MSD1), Source: A3I2260-01

Total Kjeldahl Nitrogen - Dissolved (1)	11	1.0	mg/L	10	ND	103	90-110	0	10	10/09/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 365.4 - Quality Control

Batch: A311800

Prepared: 10/7/2013

Prep Method: Digestion

Analyst: LJL

Blank (A311800-BLK1)

Phosphorus - Dissolved (1) ND 0.10 mg/L 10/09/13

Blank Spike (A311800-BS1)

Phosphorus - Dissolved (1) 10 0.10 mg/L 10 102 90-110 10/09/13

Blank Spike Dup (A311800-BSD1)

Phosphorus - Dissolved (1) 10 0.10 mg/L 10 102 90-110 0 10 10/09/13

Matrix Spike (A311800-MS1), Source: A3I2260-01

Phosphorus - Dissolved (1) 9.9 0.10 mg/L 10 ND 98 90-110 10/09/13

Matrix Spike Dup (A311800-MSD1), Source: A3I2260-01

Phosphorus - Dissolved (1) 9.4 0.10 mg/L 10 ND 93 90-110 5 10 10/09/13

SM 2120 B - Quality Control

Batch: A311368

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311368-BLK1)

Color, Apparent ND 1.0 CU 09/27/13

Duplicate (A311368-DUP1), Source: A3I2216-01

Color, Apparent 5.0 1.0 CU 5.0 0 20 09/27/13

SM 2130 B - Quality Control

Batch: A311368

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311368-BLK1)

Turbidity ND 0.10 NTU 09/27/13

Duplicate (A311368-DUP1), Source: A3I2216-01

Turbidity 2.6 0.10 NTU 2.7 4 20 09/27/13

SM 2150 B - Quality Control

Batch: A311368

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311368-BLK1)

Threshold Odor ND 1.0 T.O.N. 09/27/13

Duplicate (A311368-DUP1), Source: A3I2216-01

Threshold Odor ND 1.0 T.O.N. ND 20 09/27/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2320 B - Quality Control

Batch: A311377

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A311377-BLK1)

Alkalinity as CaCO3	ND	3.0	mg/L							09/27/13	
Bicarbonate as CaCO3	ND	3.0	mg/L							09/27/13	
Carbonate as CaCO3	ND	3.0	mg/L							09/27/13	
Hydroxide as CaCO3	ND	3.0	mg/L							09/27/13	

Blank Spike (A311377-BS1)

Alkalinity as CaCO3	100	3.0	mg/L	100		101	80-120			09/27/13	
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Blank Spike Dup (A311377-BSD1)

Alkalinity as CaCO3	100	3.0	mg/L	100		100	80-120	1	20	09/27/13	
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Duplicate (A311377-DUP1), Source: A3I2176-02

Alkalinity as CaCO3	74	3.0	mg/L		74			0	10	09/27/13	
Bicarbonate as CaCO3	73	3.0	mg/L		73			0	10	09/27/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	09/27/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	09/27/13	

Duplicate (A311377-DUP2), Source: A3I2260-01

Alkalinity as CaCO3	140	3.0	mg/L		150			0	10	09/27/13	
Bicarbonate as CaCO3	140	3.0	mg/L		150			0	10	09/27/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	09/27/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	09/27/13	

SM 2510 B - Quality Control

Batch: A311377

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A311377-BLK1)

Conductivity @ 25C	ND	1.0	umhos/cm							09/27/13	
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Duplicate (A311377-DUP1), Source: A3I2176-02

Conductivity @ 25C	580	1.0	umhos/cm		580			0	20	09/27/13	
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Duplicate (A311377-DUP2), Source: A3I2260-01

Conductivity @ 25C	43000	1.0	umhos/cm		43000			0	20	09/27/13	
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SM 2540C - Quality Control

Batch: A311537

Prepared: 10/1/2013

Prep Method: Method Specific Preparation

Analyst: DEH

Blank (A311537-BLK1)

Total Dissolved Solids	ND	5.0	mg/L							10/04/13	
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Blank Spike (A311537-BS1)

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2540C - Quality Control

Batch: A311537

Prepared: 10/1/2013

Prep Method: Method Specific Preparation

Analyst: DEH

Blank Spike (A311537-BS1)

Total Dissolved Solids	990	5.0	mg/L	1000		99	70-130			10/04/13	
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Duplicate (A311537-DUP1), Source: A3I2214-01

Total Dissolved Solids	620	5.0	mg/L		630			1	20	10/04/13	
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SM 4500-H+ B - Quality Control

Batch: A311377

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Duplicate (A311377-DUP1), Source: A3I2176-02

pH (1)	8.3		pH Units		8.3			0	20	09/27/13	
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Duplicate (A311377-DUP2), Source: A3I2260-01

pH (1)	7.7		pH Units		7.7			0	20	09/27/13	
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SM 4500-NH3 G - Quality Control

Batch: A311778

Prepared: 10/7/2013

Prep Method: Ammonia Distillation

Analyst: LJL

Blank (A311778-BLK1)

Ammonia as N	ND	0.10	mg/L							10/08/13	
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Blank (A311778-BLK2)

Ammonia as N	ND	0.10	mg/L							10/08/13	
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Blank Spike (A311778-BS1)

Ammonia as N	9.8	0.10	mg/L	10		98	80-120			10/08/13	
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Blank Spike Dup (A311778-BSD1)

Ammonia as N	9.8	0.10	mg/L	10		98	80-120	0	20	10/08/13	
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Matrix Spike (A311778-MS1), Source: A3I2168-05

Ammonia as N	10	0.10	mg/L	10	0.34	97	80-120			10/08/13	
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Matrix Spike (A311778-MS2), Source: A3I2246-02

Ammonia as N	10	0.10	mg/L	10	ND	100	80-120			10/08/13	
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Matrix Spike Dup (A311778-MSD1), Source: A3I2168-05

Ammonia as N	10	0.10	mg/L	10	0.34	96	80-120	1	20	10/08/13	
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Matrix Spike Dup (A311778-MSD2), Source: A3I2246-02

Ammonia as N	9.3	0.10	mg/L	10	ND	92	80-120	8	20	10/08/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-NO3 F - Quality Control

Batch: A311810

Prepared: 10/7/2013

Prep Method: Method Specific Preparation

Analyst: LJL

Blank (A311810-BLK2)

Total Oxidizable Nitrogen, as N - Dissolved (1) ND 0.10 mg/L 10/07/13

Blank Spike (A311810-BS1)

Total Oxidizable Nitrogen, as N - Dissolved (1) 10 0.10 mg/L 10 102 80-120 10/07/13

Blank Spike Dup (A311810-BSD1)

Total Oxidizable Nitrogen, as N - Dissolved (1) 9.8 0.10 mg/L 10 98 80-120 4 20 10/07/13

Matrix Spike (A311810-MS1), Source: A3I2132-01

Total Oxidizable Nitrogen, as N - Dissolved (1) 10 0.10 mg/L 10 0.87 94 80-120 10/07/13

Matrix Spike (A311810-MS2), Source: A3I2260-01

Total Oxidizable Nitrogen, as N - Dissolved (1) 10 0.10 mg/L 10 ND 105 80-120 10/07/13

Matrix Spike Dup (A311810-MSD1), Source: A3I2132-01

Total Oxidizable Nitrogen, as N - Dissolved (1) 10 0.10 mg/L 10 0.87 95 80-120 1 20 10/07/13

Matrix Spike Dup (A311810-MSD2), Source: A3I2260-01

Total Oxidizable Nitrogen, as N - Dissolved (1) 11 0.10 mg/L 10 ND 105 80-120 1 20 10/07/13

SM 4500-P E - Quality Control

Batch: A311398

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: LJL

Blank (A311398-BLK1)

Orthophosphate as P ND 0.010 mg/L 09/27/13

Blank Spike (A311398-BS1)

Orthophosphate as P 0.25 0.010 mg/L 0.25 101 90-110 09/27/13

Blank Spike Dup (A311398-BSD1)

Orthophosphate as P 0.25 0.010 mg/L 0.25 101 90-110 0 20 09/27/13

Matrix Spike (A311398-MS1), Source: A3I2214-01

Orthophosphate as P 1.4 0.050 mg/L 1.2 0.14 98 80-120 09/27/13

Matrix Spike Dup (A311398-MSD1), Source: A3I2214-01

Orthophosphate as P 1.4 0.050 mg/L 1.2 0.14 99 80-120 1 20 09/27/13

SM 5540 C - Quality Control

Batch: A311369

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311369-BLK1)

MBAS, Calculated as LAS, mol wt 340 ND 0.050 mg/L 09/27/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 5540 C - Quality Control

Batch: A311369

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank Spike (A311369-BS1)

MBAS, Calculated as LAS, mol wt 340 0.94 0.050 mg/L 1.0 94 80-120 09/27/13

Blank Spike Dup (A311369-BSD1)

MBAS, Calculated as LAS, mol wt 340 0.96 0.050 mg/L 1.0 96 80-120 1 20 09/27/13

Matrix Spike (A311369-MS1), Source: A3I2214-01

MBAS, Calculated as LAS, mol wt 340 1.0 0.050 mg/L 1.0 ND 102 80-120 09/27/13

Matrix Spike Dup (A311369-MSD1), Source: A3I2214-01

MBAS, Calculated as LAS, mol wt 340 1.1 0.050 mg/L 1.0 ND 104 80-120 2 20 09/27/13

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A311444

Prepared: 9/30/2013

Prep Method: EPA 200.2

Analyst: NRE

Blank (A311444-BLK2)

Aluminum	ND	0.050	mg/L							10/01/13	
Calcium	ND	0.10	mg/L							10/01/13	
Iron	ND	0.030	mg/L							10/01/13	
Magnesium	ND	0.10	mg/L							10/01/13	
Manganese	ND	0.010	mg/L							10/01/13	
Zinc	ND	0.050	mg/L							10/01/13	

Blank Spike (A311444-BS2)

Aluminum	0.20	0.050	mg/L	0.20		98	85-115			10/01/13	
Calcium	10	0.10	mg/L	10		101	85-115			10/01/13	
Iron	2.1	0.030	mg/L	2.0		103	85-115			10/01/13	
Magnesium	10	0.10	mg/L	10		100	85-115			10/01/13	
Manganese	0.20	0.010	mg/L	0.20		101	85-115			10/01/13	
Zinc	0.21	0.050	mg/L	0.20		105	85-115			10/01/13	

Blank Spike Dup (A311444-BSD2)

Aluminum	0.20	0.050	mg/L	0.20		99	85-115	1	20	10/01/13	
Calcium	10	0.10	mg/L	10		102	85-115	1	20	10/01/13	
Iron	2.1	0.030	mg/L	2.0		103	85-115	0	20	10/01/13	
Magnesium	10	0.10	mg/L	10		100	85-115	0	20	10/01/13	
Manganese	0.20	0.010	mg/L	0.20		101	85-115	0	20	10/01/13	
Zinc	0.21	0.050	mg/L	0.20		103	85-115	1	20	10/01/13	

Matrix Spike (A311444-MS3), Source: A3I2176-02

Aluminum	0.24	0.050	mg/L	0.20	ND	121	70-130			10/01/13	
Calcium	28	0.10	mg/L	10	18	103	70-130			10/01/13	
Iron	2.1	0.030	mg/L	2.0	0.11	101	70-130			10/01/13	
Magnesium	24	0.10	mg/L	10	14	102	70-130			10/01/13	
Manganese	0.21	0.010	mg/L	0.20	0.014	99	70-130			10/01/13	
Zinc	0.21	0.050	mg/L	0.20	ND	103	70-130			10/01/13	

Matrix Spike (A311444-MS4), Source: A3I2215-01

Aluminum	0.19	0.050	mg/L	0.20	ND	94	70-130			10/01/13	
Calcium	41	0.10	mg/L	10	31	107	70-130			10/01/13	
Iron	2.0	0.030	mg/L	2.0	ND	102	70-130			10/01/13	
Magnesium	24	0.10	mg/L	10	14	102	70-130			10/01/13	
Manganese	0.20	0.010	mg/L	0.20	ND	100	70-130			10/01/13	
Zinc	0.27	0.050	mg/L	0.20	0.068	102	70-130			10/01/13	

Matrix Spike Dup (A311444-MSD3), Source: A3I2176-02

Aluminum	0.24	0.050	mg/L	0.20	ND	118	70-130	3	20	10/01/13	
Calcium	27	0.10	mg/L	10	18	95	70-130	3	20	10/01/13	
Iron	2.1	0.030	mg/L	2.0	0.11	100	70-130	1	20	10/01/13	
Magnesium	23	0.10	mg/L	10	14	96	70-130	2	20	10/01/13	
Manganese	0.21	0.010	mg/L	0.20	0.014	98	70-130	1	20	10/01/13	
Zinc	0.20	0.050	mg/L	0.20	ND	101	70-130	2	20	10/01/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A311444

Prepared: 9/30/2013

Prep Method: EPA 200.2

Analyst: NRE

Matrix Spike Dup (A311444-MSD4), Source: A3I2215-01

Aluminum	0.19	0.050	mg/L	0.20	ND	94	70-130	0	20	10/01/13	
Calcium	41	0.10	mg/L	10	31	105	70-130	1	20	10/01/13	
Iron	2.0	0.030	mg/L	2.0	ND	102	70-130	0	20	10/01/13	
Magnesium	24	0.10	mg/L	10	14	102	70-130	0	20	10/01/13	
Manganese	0.20	0.010	mg/L	0.20	ND	99	70-130	1	20	10/01/13	
Zinc	0.27	0.050	mg/L	0.20	0.068	102	70-130	1	20	10/01/13	

EPA 200.7 - Quality Control

Batch: A311497

Prepared: 10/1/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A311497-BLK2)

Barium - Dissolved (1)	ND	0.050	mg/L							10/04/13	
Boron - Dissolved (1)	ND	0.10	mg/L							10/04/13	
Calcium - Dissolved (1)	ND	0.10	mg/L							10/04/13	
Iron - Dissolved (1)	ND	0.030	mg/L							10/04/13	
Magnesium - Dissolved (1)	ND	0.10	mg/L							10/04/13	
Manganese - Dissolved (1)	ND	0.010	mg/L							10/04/13	
Potassium - Dissolved (1)	ND	2.0	mg/L							10/04/13	
Silica (SiO2) - Dissolved (1)	ND	0.20	mg/L							10/04/13	
Sodium - Dissolved (1)	ND	1.0	mg/L							10/04/13	

Blank Spike (A311497-BS2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		99	85-115			10/04/13	
Boron - Dissolved (1)	0.57	0.10	mg/L	0.60		95	85-115			10/04/13	
Calcium - Dissolved (1)	9.8	0.10	mg/L	10		98	85-115			10/04/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		99	85-115			10/04/13	
Magnesium - Dissolved (1)	9.6	0.10	mg/L	10		96	85-115			10/04/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20		97	85-115			10/04/13	
Potassium - Dissolved (1)	9.7	2.0	mg/L	10		97	85-115			10/04/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		102	85-115			10/04/13	
Sodium - Dissolved (1)	9.8	1.0	mg/L	10		98	85-115			10/04/13	

Blank Spike Dup (A311497-BSD2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		100	85-115	2	20	10/04/13	
Boron - Dissolved (1)	0.58	0.10	mg/L	0.60		97	85-115	2	20	10/04/13	
Calcium - Dissolved (1)	10	0.10	mg/L	10		100	85-115	2	20	10/04/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		100	85-115	1	20	10/04/13	
Magnesium - Dissolved (1)	9.7	0.10	mg/L	10		97	85-115	1	20	10/04/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20		98	85-115	1	20	10/04/13	
Potassium - Dissolved (1)	9.9	2.0	mg/L	10		99	85-115	2	20	10/04/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		102	85-115	1	20	10/04/13	
Sodium - Dissolved (1)	10	1.0	mg/L	10		100	85-115	2	20	10/04/13	

Matrix Spike (A311497-MS2), Source: A3I2260-01

Barium - Dissolved (1)	0.25	0.50	mg/L	0.20	ND	123	70-130			10/04/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A311497

Prepared: 10/1/2013

Prep Method: Filtration - Metals

Analyst: NRE

Matrix Spike (A311497-MS2), Source: A3I2260-01

Boron - Dissolved (1)	4.9	1.0	mg/L	0.60	4.3	100	70-130			10/04/13	
Calcium - Dissolved (1)	410	1.0	mg/L	10	400	184	70-130			10/04/13	MS1.0 High
Iron - Dissolved (1)	2.0	0.30	mg/L	2.0	ND	99	70-130			10/04/13	
Magnesium - Dissolved (1)	1200	1.0	mg/L	10	1200	340	70-130			10/04/13	MS1.0 High
Manganese - Dissolved (1)	1.9	0.10	mg/L	0.20	1.7	114	70-130			10/04/13	
Potassium - Dissolved (1)	390	20	mg/L	10	380	171	70-130			10/04/13	MS1.0 High
Silica (SiO2) - Dissolved (1)	27	2.0	mg/L	2.1	25	128	70-130			10/04/13	

Matrix Spike (A311497-MS3), Source: A3I2260-01

Sodium - Dissolved (1)	10000	100	mg/L	10	10000	NR	70-130			10/05/13	MS1.0 High
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Matrix Spike Dup (A311497-MSD2), Source: A3I2260-01

Barium - Dissolved (1)	0.24	0.50	mg/L	0.20	ND	122	70-130	1	20	10/04/13	
Boron - Dissolved (1)	4.9	1.0	mg/L	0.60	4.3	108	70-130	1	20	10/04/13	
Calcium - Dissolved (1)	410	1.0	mg/L	10	400	186	70-130	0	20	10/04/13	MS1.0 High
Iron - Dissolved (1)	2.0	0.30	mg/L	2.0	ND	101	70-130	2	20	10/04/13	
Magnesium - Dissolved (1)	1200	1.0	mg/L	10	1200	366	70-130	0	20	10/04/13	MS1.0 High
Manganese - Dissolved (1)	1.9	0.10	mg/L	0.20	1.7	119	70-130	1	20	10/04/13	
Potassium - Dissolved (1)	400	20	mg/L	10	380	185	70-130	0	20	10/04/13	MS1.0 High
Silica (SiO2) - Dissolved (1)	28	2.0	mg/L	2.1	25	141	70-130	1	20	10/04/13	MS1.0 High

Matrix Spike Dup (A311497-MSD3), Source: A3I2260-01

Sodium - Dissolved (1)	11000	100	mg/L	10	10000	NR	70-130	1	20	10/05/13	MS1.0 High
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EPA 200.8 - Quality Control

Batch: A311444

Prepared: 9/30/2013

Prep Method: EPA 200.2

Analyst: MAS

Blank (A311444-BLK1)

Arsenic	ND	2.0	ug/L							10/08/13	
Copper	ND	5.0	ug/L							10/08/13	

Blank Spike (A311444-BS1)

Arsenic	200	2.0	ug/L	200		101	85-115			10/08/13	
Copper	200	5.0	ug/L	200		101	85-115			10/08/13	

Blank Spike Dup (A311444-BSD1)

Arsenic	210	2.0	ug/L	200		106	85-115	5	20	10/08/13	
Copper	200	5.0	ug/L	200		102	85-115	2	20	10/08/13	

Matrix Spike (A311444-MS1), Source: A3I2176-02

Arsenic	200	2.0	ug/L	200	3.9	100	70-130			10/08/13	
Copper	200	5.0	ug/L	200	ND	100	70-130			10/08/13	

Matrix Spike (A311444-MS2), Source: A3I2215-01

Arsenic	200	2.0	ug/L	200	ND	102	70-130			10/08/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.8 - Quality Control

Batch: A311444

Prepared: 9/30/2013

Prep Method: EPA 200.2

Analyst: MAS

Matrix Spike (A311444-MS2), Source: A3I2215-01

Copper	190	5.0	ug/L	200	ND	96	70-130			10/08/13	
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Matrix Spike Dup (A311444-MSD1), Source: A3I2176-02

Arsenic	200	2.0	ug/L	200	3.9	100	70-130	0	20	10/08/13	
Copper	200	5.0	ug/L	200	ND	98	70-130	2	20	10/08/13	

Matrix Spike Dup (A311444-MSD2), Source: A3I2215-01

Arsenic	200	2.0	ug/L	200	ND	102	70-130	0	20	10/08/13	
Copper	190	5.0	ug/L	200	ND	97	70-130	1	20	10/08/13	

EPA 200.8 - Quality Control

Batch: A311497

Prepared: 10/1/2013

Prep Method: Filtration - Metals

Analyst: MAS

Blank (A311497-BLK1)

Strontium - Dissolved (1)	ND	1.0	ug/L							10/08/13	
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Blank Spike (A311497-BS1)

Strontium - Dissolved (1)	190	1.0	ug/L	200		93	85-115			10/08/13	
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Blank Spike Dup (A311497-BSD1)

Strontium - Dissolved (1)	190	1.0	ug/L	200		96	85-115	3	20	10/08/13	
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Matrix Spike (A311497-MS1), Source: A3I2260-01

Strontium - Dissolved (1)	8700	10	ug/L	200	7400	673	70-130			10/08/13	MS1.0 High
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Matrix Spike Dup (A311497-MSD1), Source: A3I2260-01

Strontium - Dissolved (1)	8200	10	ug/L	200	7400	401	70-130	6	20	10/08/13	MS1.0 High
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A311476

Prepared: 9/30/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A311476-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							10/02/13	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							10/02/13	
Surrogate: TCMX	1.6			1.5		107	70-130			10/02/13	

Blank Spike (A311476-BS1)

Dibromochloropropane (DBCP)	0.21	0.010	ug/L	0.20		104	70-130			10/02/13	
Ethylene Dibromide (EDB)	0.22	0.020	ug/L	0.20		108	70-130			10/02/13	
Surrogate: TCMX	1.5			1.5		102	70-130			10/02/13	

Blank Spike Dup (A311476-BSD1)

Dibromochloropropane (DBCP)	0.20	0.010	ug/L	0.20		101	70-130	2	20	10/02/13	
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.20		104	70-130	4	20	10/02/13	
Surrogate: TCMX	1.4			1.5		91	70-130			10/02/13	

Matrix Spike (A311476-MS1), Source: A3I2242-01

Dibromochloropropane (DBCP)	0.19	0.010	ug/L	0.20	ND	93	65-135			10/02/13	
Ethylene Dibromide (EDB)	0.19	0.020	ug/L	0.20	ND	96	65-135			10/02/13	
Surrogate: TCMX	1.5			1.5		97	70-130			10/02/13	

Matrix Spike Dup (A311476-MSD1), Source: A3I2242-01

Dibromochloropropane (DBCP)	0.19	0.010	ug/L	0.20	ND	95	65-135	0	20	10/02/13	
Ethylene Dibromide (EDB)	0.18	0.020	ug/L	0.20	ND	94	65-135	4	20	10/02/13	
Surrogate: TCMX	1.4			1.5		92	70-130			10/02/13	

EPA 505 - Quality Control

Batch: A311476

Prepared: 9/30/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A311476-BLK1)

Aldrin	ND	0.075	ug/L							10/02/13	
Chlordane	ND	0.10	ug/L							10/02/13	
Chlorothalonil	ND	5.0	ug/L							10/02/13	
Dieldrin	ND	0.020	ug/L							10/02/13	
Endrin	ND	0.10	ug/L							10/02/13	
Heptachlor	ND	0.010	ug/L							10/02/13	
Heptachlor Epoxide	ND	0.010	ug/L							10/02/13	
Hexachlorobenzene	ND	0.50	ug/L							10/02/13	
Hexachlorocyclopentadiene	ND	1.0	ug/L							10/02/13	
Lindane	ND	0.20	ug/L							10/02/13	
Methoxychlor	ND	10	ug/L							10/02/13	
PCB Aroclor Screen	ND	0.50	ug/L							10/02/13	
Toxaphene	ND	1.0	ug/L							10/02/13	
Trifluralin	ND	1.0	ug/L							10/02/13	
Surrogate: TCMX	1.6			1.5		107	70-130			10/02/13	

Blank Spike (A311476-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A311476

Prepared: 9/30/2013

Prep Method: EPA 505

Analyst: GAK

Blank Spike (A311476-BS1)

Aldrin	1.2	0.075	ug/L	1.0		119	70-130			10/02/13	
Chlorothalonil	11	5.0	ug/L	10		114	70-130			10/02/13	
Dieldrin	0.45	0.020	ug/L	0.40		112	70-130			10/02/13	
Endrin	0.21	0.10	ug/L	0.20		106	70-130			10/02/13	
Heptachlor	0.22	0.010	ug/L	0.20		112	70-130			10/02/13	
Heptachlor Epoxide	0.22	0.010	ug/L	0.20		110	70-130			10/02/13	
Hexachlorobenzene	2.4	0.50	ug/L	2.0		118	70-130			10/02/13	
Hexachlorocyclopentadiene	2.6	1.0	ug/L	2.0		128	70-130			10/02/13	
Lindane	0.46	0.20	ug/L	0.40		116	70-130			10/02/13	
Methoxychlor	2.1	10	ug/L	2.0		104	70-130			10/02/13	
Trifluralin	2.5	1.0	ug/L	2.0		125	70-130			10/02/13	
Surrogate: TCMX	1.5			1.5		102	70-130			10/02/13	

Blank Spike Dup (A311476-BSD1)

Aldrin	1.1	0.075	ug/L	1.0		111	70-130	7	20	10/02/13	
Chlorothalonil	11	5.0	ug/L	10		111	70-130	3	20	10/02/13	
Dieldrin	0.43	0.020	ug/L	0.40		107	70-130	4	20	10/02/13	
Endrin	0.20	0.10	ug/L	0.20		102	70-130	4	20	10/02/13	
Heptachlor	0.21	0.010	ug/L	0.20		107	70-130	5	20	10/02/13	
Heptachlor Epoxide	0.22	0.010	ug/L	0.20		108	70-130	2	20	10/02/13	
Hexachlorobenzene	2.3	0.50	ug/L	2.0		113	70-130	5	20	10/02/13	
Hexachlorocyclopentadiene	2.4	1.0	ug/L	2.0		122	70-130	5	20	10/02/13	
Lindane	0.44	0.20	ug/L	0.40		111	70-130	4	20	10/02/13	
Methoxychlor	2.1	10	ug/L	2.0		103	70-130	1	20	10/02/13	
Trifluralin	2.4	1.0	ug/L	2.0		119	70-130	5	20	10/02/13	
Surrogate: TCMX	1.4			1.5		91	70-130			10/02/13	

Matrix Spike (A311476-MS1), Source: A3I2242-01

Aldrin	0.99	0.075	ug/L	1.0	ND	99	65-135			10/02/13	
Chlorothalonil	10	5.0	ug/L	10	ND	104	65-135			10/02/13	
Dieldrin	0.40	0.020	ug/L	0.40	ND	101	65-135			10/02/13	
Endrin	0.19	0.10	ug/L	0.20	ND	96	65-135			10/02/13	
Heptachlor	0.20	0.010	ug/L	0.20	ND	100	65-135			10/02/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20	ND	100	65-135			10/02/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0	ND	106	65-135			10/02/13	
Hexachlorocyclopentadiene	2.1	1.0	ug/L	2.0	ND	106	65-135			10/02/13	
Lindane	0.42	0.20	ug/L	0.40	ND	105	65-135			10/02/13	
Methoxychlor	1.9	10	ug/L	2.0	ND	97	65-135			10/02/13	
Trifluralin	2.2	1.0	ug/L	2.0	ND	110	65-135			10/02/13	
Surrogate: TCMX	1.5			1.5		97	70-130			10/02/13	

Matrix Spike Dup (A311476-MSD1), Source: A3I2242-01

Aldrin	0.94	0.075	ug/L	0.99	ND	95	65-135	6	20	10/02/13	
Chlorothalonil	10	5.0	ug/L	9.9	ND	105	65-135	1	20	10/02/13	
Dieldrin	0.41	0.020	ug/L	0.40	ND	103	65-135	1	20	10/02/13	
Endrin	0.19	0.10	ug/L	0.20	ND	98	65-135	1	20	10/02/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A311476

Prepared: 9/30/2013

Prep Method: EPA 505

Analyst: GAK

Matrix Spike Dup (A311476-MSD1), Source: A312242-01

Heptachlor	0.19	0.010	ug/L	0.20	ND	98	65-135	4	20	10/02/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20	ND	102	65-135	1	20	10/02/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0	ND	105	65-135	2	20	10/02/13	
Hexachlorocyclopentadiene	1.9	1.0	ug/L	2.0	ND	97	65-135	10	20	10/02/13	
Lindane	0.42	0.20	ug/L	0.40	ND	106	65-135	0	20	10/02/13	
Methoxychlor	2.0	10	ug/L	2.0	ND	101	65-135	3	20	10/02/13	
Trifluralin	2.2	1.0	ug/L	2.0	ND	111	65-135	0	20	10/02/13	
Surrogate: TCMX	1.4			1.5		92	70-130			10/02/13	

EPA 515.3 - Quality Control

Batch: A311419

Prepared: 9/29/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank (A311419-BLK1)

2,4,5-T	ND	1.0	ug/L							10/04/13	
2,4,5-TP (Silvex)	ND	1.0	ug/L							10/04/13	
2,4-D	ND	10	ug/L							10/04/13	
Bentazon	ND	2.0	ug/L							10/04/13	
Dalapon	ND	10	ug/L							10/04/13	
Dicamba	ND	1.5	ug/L							10/04/13	
Dinoseb	ND	2.0	ug/L							10/04/13	
Pentachlorophenol	ND	0.20	ug/L							10/04/13	
Picloram	ND	1.0	ug/L							10/04/13	
Surrogate: DCPAA	71			58		123	70-130			10/04/13	

Blank Spike (A311419-BS1)

2,4,5-T	4.1	1.0	ug/L	4.0		102	70-130			10/04/13	
2,4,5-TP (Silvex)	4.2	1.0	ug/L	4.0		106	70-130			10/04/13	
2,4-D	47	10	ug/L	40		118	70-130			10/04/13	
Bentazon	9.8	2.0	ug/L	8.0		122	70-130			10/04/13	
Dalapon	37	10	ug/L	40		92	70-130			10/04/13	
Dicamba	5.9	1.5	ug/L	6.0		98	70-130			10/04/13	
Dinoseb	8.1	2.0	ug/L	8.0		101	70-130			10/04/13	
Pentachlorophenol	0.68	0.20	ug/L	0.80		85	70-130			10/04/13	
Picloram	3.3	1.0	ug/L	4.0		82	70-130			10/04/13	
Surrogate: DCPAA	67			58		115	70-130			10/04/13	

Blank Spike Dup (A311419-BSD1)

2,4,5-T	3.9	1.0	ug/L	4.0		98	70-130	3	20	10/04/13	
2,4,5-TP (Silvex)	4.2	1.0	ug/L	4.0		104	70-130	2	20	10/04/13	
2,4-D	46	10	ug/L	40		114	70-130	3	20	10/04/13	
Bentazon	8.1	2.0	ug/L	8.0		101	70-130	19	20	10/04/13	
Dalapon	37	10	ug/L	40		91	70-130	1	20	10/04/13	
Dicamba	5.9	1.5	ug/L	6.0		98	70-130	0	20	10/04/13	
Dinoseb	8.1	2.0	ug/L	8.0		101	70-130	0	20	10/04/13	
Pentachlorophenol	0.72	0.20	ug/L	0.80		90	70-130	6	20	10/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A311419

Prepared: 9/29/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A311419-BSD1)

Picloram	3.9	1.0	ug/L	4.0		97	70-130	17	20	10/04/13	
Surrogate: DCPAA	67			58		116	70-130			10/04/13	

Matrix Spike (A311419-MS1), Source: A3I2242-01

2,4,5-T	4.0	1.0	ug/L	4.0	ND	101	70-130			10/04/13	
2,4,5-TP (Silvex)	4.7	1.0	ug/L	4.0	ND	116	70-130			10/04/13	
2,4-D	47	10	ug/L	40	ND	119	70-130			10/04/13	
Bentazon	8.9	2.0	ug/L	8.0	ND	111	70-130			10/04/13	
Dalapon	37	10	ug/L	40	ND	92	70-130			10/04/13	
Dicamba	6.3	1.5	ug/L	6.0	ND	105	70-130			10/04/13	
Dinoseb	8.1	2.0	ug/L	8.0	ND	102	70-130			10/04/13	
Pentachlorophenol	0.68	0.20	ug/L	0.80	ND	85	70-130			10/04/13	
Picloram	3.3	1.0	ug/L	4.0	ND	82	70-130			10/04/13	
Surrogate: DCPAA	69			58		119	70-130			10/04/13	

Matrix Spike Dup (A311419-MSD1), Source: A3I2242-01

2,4,5-T	4.0	1.0	ug/L	4.0	ND	100	70-130	1	20	10/04/13	
2,4,5-TP (Silvex)	4.0	1.0	ug/L	4.0	ND	100	70-130	16	20	10/04/13	
2,4-D	46	10	ug/L	40	ND	115	70-130	3	20	10/04/13	
Bentazon	8.8	2.0	ug/L	8.0	ND	110	70-130	1	20	10/04/13	
Dalapon	36	10	ug/L	40	ND	89	70-130	3	20	10/04/13	
Dicamba	5.8	1.5	ug/L	6.0	ND	97	70-130	8	20	10/04/13	
Dinoseb	8.0	2.0	ug/L	8.0	ND	100	70-130	1	20	10/04/13	
Pentachlorophenol	0.66	0.20	ug/L	0.80	ND	82	70-130	3	20	10/04/13	
Picloram	3.2	1.0	ug/L	4.0	ND	80	70-130	2	20	10/04/13	
Surrogate: DCPAA	66			58		113	70-130			10/04/13	

EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A311594-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							10/03/13	
1,1,1-Trichloroethane	ND	0.50	ug/L							10/03/13	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							10/03/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							10/03/13	
1,1,2-Trichloroethane	ND	0.50	ug/L							10/03/13	
1,1-Dichloroethane	ND	0.50	ug/L							10/03/13	
1,1-Dichloroethene	ND	0.50	ug/L							10/03/13	
1,1-Dichloropropene	ND	0.50	ug/L							10/03/13	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							10/03/13	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							10/03/13	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							10/03/13	
1,2-Dichlorobenzene	ND	0.50	ug/L							10/03/13	
1,2-Dichloroethane	ND	0.50	ug/L							10/03/13	
1,2-Dichloropropane	ND	0.50	ug/L							10/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A311594-BLK1)

1,3,5-Trimethylbenzene	ND	0.50	ug/L							10/03/13	
1,3-Dichlorobenzene	ND	0.50	ug/L							10/03/13	
1,3-Dichloropropane	ND	0.50	ug/L							10/03/13	
1,4-Dichlorobenzene	ND	0.50	ug/L							10/03/13	
2,2-Dichloropropane	ND	0.50	ug/L							10/03/13	
2-Butanone	ND	5.0	ug/L							10/03/13	
2-Chlorotoluene	ND	0.50	ug/L							10/03/13	
2-Hexanone	ND	10	ug/L							10/03/13	
4-Chlorotoluene	ND	0.50	ug/L							10/03/13	
4-Methyl-2-pentanone	ND	5.0	ug/L							10/03/13	
Acetone	ND	10	ug/L							10/03/13	
Benzene	ND	0.50	ug/L							10/03/13	
Bromobenzene	ND	0.50	ug/L							10/03/13	
Bromochloromethane	ND	0.50	ug/L							10/03/13	
Bromodichloromethane	ND	0.50	ug/L							10/03/13	
Bromoform	ND	0.50	ug/L							10/03/13	
Bromomethane	ND	0.50	ug/L							10/03/13	
Carbon Tetrachloride	ND	0.50	ug/L							10/03/13	
Chlorobenzene	ND	0.50	ug/L							10/03/13	
Chloroethane	ND	0.50	ug/L							10/03/13	
Chloroform	ND	0.50	ug/L							10/03/13	
Chloromethane	ND	0.50	ug/L							10/03/13	
cis-1,2-Dichloroethene	ND	0.50	ug/L							10/03/13	
cis-1,3-Dichloropropene	ND	0.50	ug/L							10/03/13	
Dibromochloromethane	ND	0.50	ug/L							10/03/13	
Dibromomethane	ND	0.50	ug/L							10/03/13	
Dichlorodifluoromethane	ND	0.50	ug/L							10/03/13	
Dichloromethane	ND	0.50	ug/L							10/03/13	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							10/03/13	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							10/03/13	
Ethylbenzene	ND	0.50	ug/L							10/03/13	
Hexachlorobutadiene	ND	0.50	ug/L							10/03/13	
Isopropylbenzene	ND	0.50	ug/L							10/03/13	
m,p-Xylenes	ND	0.50	ug/L							10/03/13	
Methyl-t-butyl ether	ND	0.50	ug/L							10/03/13	
Naphthalene	ND	0.50	ug/L							10/03/13	
n-Butylbenzene	ND	0.50	ug/L							10/03/13	
n-Propylbenzene	ND	0.50	ug/L							10/03/13	
o-Xylene	ND	0.50	ug/L							10/03/13	
p-Isopropyltoluene	ND	0.50	ug/L							10/03/13	
sec-Butylbenzene	ND	0.50	ug/L							10/03/13	
Styrene	ND	0.50	ug/L							10/03/13	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							10/03/13	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							10/03/13	
tert-Butylbenzene	ND	0.50	ug/L							10/03/13	
Tetrachloroethene (PCE)	ND	0.50	ug/L							10/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A311594-BLK1)

Toluene	ND	0.50	ug/L							10/03/13	
trans-1,2-Dichloroethene	ND	0.50	ug/L							10/03/13	
trans-1,3-Dichloropropene	ND	0.50	ug/L							10/03/13	
Trichloroethene (TCE)	ND	0.50	ug/L							10/03/13	
Trichlorofluoromethane	ND	5.0	ug/L							10/03/13	
Vinyl Chloride	ND	0.50	ug/L							10/03/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.5			5.0		90	70-130			10/03/13	
Surrogate: Bromofluorobenzene	4.9			5.0		97	70-130			10/03/13	

Blank Spike (A311594-BS1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		100	70-130			10/03/13	
1,1,1-Trichloroethane	9.2	0.50	ug/L	10		92	70-130			10/03/13	
1,1,2,2-Tetrachloroethane	9.8	0.50	ug/L	10		98	70-130			10/03/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	8.9	10	ug/L	10		89	70-130			10/03/13	
1,1,2-Trichloroethane	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,1-Dichloroethane	9.9	0.50	ug/L	10		99	70-130			10/03/13	
1,1-Dichloroethene	9.7	0.50	ug/L	10		97	70-130			10/03/13	
1,1-Dichloropropene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		100	70-130			10/03/13	
1,2,4-Trichlorobenzene	8.7	0.50	ug/L	10		87	70-130			10/03/13	
1,2,4-Trimethylbenzene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
1,2-Dichlorobenzene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,2-Dichloroethane	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,2-Dichloropropane	10	0.50	ug/L	10		100	70-130			10/03/13	
1,3,5-Trimethylbenzene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,3-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130			10/03/13	
1,3-Dichloropropane	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,4-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130			10/03/13	
2,2-Dichloropropane	10	0.50	ug/L	10		100	70-130			10/03/13	
2-Butanone	9.7	5.0	ug/L	10		97	70-130			10/03/13	
2-Chlorotoluene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
2-Hexanone	9.4	10	ug/L	10		94	70-130			10/03/13	
4-Chlorotoluene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
4-Methyl-2-pentanone	9.5	5.0	ug/L	10		95	70-130			10/03/13	
Acetone	9.8	10	ug/L	10		98	70-130			10/03/13	
Benzene	9.9	0.50	ug/L	10		99	70-130			10/03/13	
Bromobenzene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
Bromochloromethane	9.9	0.50	ug/L	10		99	70-130			10/03/13	
Bromodichloromethane	9.5	0.50	ug/L	10		95	70-130			10/03/13	
Bromoform	9.3	0.50	ug/L	10		93	70-130			10/03/13	
Bromomethane	9.2	0.50	ug/L	10		92	70-130			10/03/13	
Carbon Tetrachloride	8.9	0.50	ug/L	10		89	70-130			10/03/13	
Chlorobenzene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
Chloroethane	9.4	0.50	ug/L	10		94	70-130			10/03/13	
Chloroform	10	0.50	ug/L	10		104	70-130			10/03/13	
Chloromethane	10	0.50	ug/L	10		100	70-130			10/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A311594-BS1)

cis-1,2-Dichloroethene	9.9	0.50	ug/L	10		99	70-130			10/03/13	
cis-1,3-Dichloropropene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
Dibromochloromethane	9.5	0.50	ug/L	10		95	70-130			10/03/13	
Dibromomethane	9.5	0.50	ug/L	10		95	70-130			10/03/13	
Dichlorodifluoromethane	8.1	0.50	ug/L	10		81	70-130			10/03/13	
Dichloromethane	9.7	0.50	ug/L	10		97	70-130			10/03/13	
Di-isopropyl ether (DIPE)	10	3.0	ug/L	10		104	70-130			10/03/13	
Ethyl tert-Butyl Ether (ETBE)	9.8	0.50	ug/L	10		98	70-130			10/03/13	
Ethylbenzene	9.2	0.50	ug/L	10		92	70-130			10/03/13	
Hexachlorobutadiene	8.1	0.50	ug/L	10		81	70-130			10/03/13	
Isopropylbenzene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
m,p-Xylenes	18	0.50	ug/L	20		92	70-130			10/03/13	
Methyl-t-butyl ether	21	0.50	ug/L	20		105	70-130			10/03/13	
Naphthalene	8.0	0.50	ug/L	10		80	70-130			10/03/13	
n-Butylbenzene	9.4	0.50	ug/L	10		94	70-130			10/03/13	
n-Propylbenzene	9.7	0.50	ug/L	10		97	70-130			10/03/13	
o-Xylene	9.2	0.50	ug/L	10		92	70-130			10/03/13	
p-Isopropyltoluene	9.7	0.50	ug/L	10		97	70-130			10/03/13	
sec-Butylbenzene	9.5	0.50	ug/L	10		95	70-130			10/03/13	
Styrene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
tert-Amyl Methyl Ether (TAME)	9.1	3.0	ug/L	10		91	70-130			10/03/13	
tert-Butyl alcohol (TBA)	12	2.0	ug/L	10		122	70-130			10/03/13	
tert-Butylbenzene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
Tetrachloroethene (PCE)	9.4	0.50	ug/L	10		94	70-130			10/03/13	
Toluene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
trans-1,2-Dichloroethene	9.9	0.50	ug/L	10		99	70-130			10/03/13	
trans-1,3-Dichloropropene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
Trichloroethene (TCE)	9.8	0.50	ug/L	10		98	70-130			10/03/13	
Trichlorofluoromethane	8.6	5.0	ug/L	10		86	70-130			10/03/13	
Vinyl Chloride	8.9	0.50	ug/L	10		89	70-130			10/03/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		97	70-130			10/03/13	
Surrogate: Bromofluorobenzene	4.9			5.0		98	70-130			10/03/13	

Blank Spike Dup (A311594-BSD1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		100	70-130	0	30	10/03/13	
1,1,1-Trichloroethane	9.2	0.50	ug/L	10		92	70-130	0	30	10/03/13	
1,1,2,2-Tetrachloroethane	9.9	0.50	ug/L	10		99	70-130	1	30	10/03/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	8.9	10	ug/L	10		89	70-130	0	30	10/03/13	
1,1,2-Trichloroethane	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
1,1-Dichloroethane	10	0.50	ug/L	10		100	70-130	1	30	10/03/13	
1,1-Dichloroethene	9.7	0.50	ug/L	10		97	70-130	0	30	10/03/13	
1,1-Dichloropropene	9.3	0.50	ug/L	10		93	70-130	3	30	10/03/13	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		100	70-130	1	30	10/03/13	
1,2,4-Trichlorobenzene	9.6	0.50	ug/L	10		96	70-130	10	30	10/03/13	
1,2,4-Trimethylbenzene	9.8	0.50	ug/L	10		98	70-130	1	30	10/03/13	
1,2-Dichlorobenzene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A311594-BSD1)

1,2-Dichloroethane	9.7	0.50	ug/L	10		97	70-130	1	30	10/03/13	
1,2-Dichloropropane	9.9	0.50	ug/L	10		99	70-130	1	30	10/03/13	
1,3,5-Trimethylbenzene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
1,3-Dichlorobenzene	9.8	0.50	ug/L	10		98	70-130	1	30	10/03/13	
1,3-Dichloropropane	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
1,4-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130	0	30	10/03/13	
2,2-Dichloropropane	9.9	0.50	ug/L	10		99	70-130	1	30	10/03/13	
2-Butanone	10	5.0	ug/L	10		100	70-130	4	30	10/03/13	
2-Chlorotoluene	9.7	0.50	ug/L	10		97	70-130	1	30	10/03/13	
2-Hexanone	9.2	10	ug/L	10		92	70-130	2	30	10/03/13	
4-Chlorotoluene	9.9	0.50	ug/L	10		99	70-130	1	30	10/03/13	
4-Methyl-2-pentanone	9.2	5.0	ug/L	10		92	70-130	3	30	10/03/13	
Acetone	10	10	ug/L	10		100	70-130	2	30	10/03/13	
Benzene	9.8	0.50	ug/L	10		98	70-130	1	30	10/03/13	
Bromobenzene	9.8	0.50	ug/L	10		98	70-130	1	30	10/03/13	
Bromochloromethane	9.8	0.50	ug/L	10		98	70-130	1	30	10/03/13	
Bromodichloromethane	9.5	0.50	ug/L	10		95	70-130	0	30	10/03/13	
Bromoform	9.2	0.50	ug/L	10		92	70-130	0	30	10/03/13	
Bromomethane	9.4	0.50	ug/L	10		94	70-130	2	30	10/03/13	
Carbon Tetrachloride	9.0	0.50	ug/L	10		90	70-130	0	30	10/03/13	
Chlorobenzene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
Chloroethane	9.1	0.50	ug/L	10		91	70-130	2	30	10/03/13	
Chloroform	10	0.50	ug/L	10		105	70-130	1	30	10/03/13	
Chloromethane	8.4	0.50	ug/L	10		84	70-130	18	30	10/03/13	
cis-1,2-Dichloroethene	9.9	0.50	ug/L	10		99	70-130	1	30	10/03/13	
cis-1,3-Dichloropropene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130	4	30	10/03/13	
Dibromomethane	9.6	0.50	ug/L	10		96	70-130	1	30	10/03/13	
Dichlorodifluoromethane	8.1	0.50	ug/L	10		81	70-130	1	30	10/03/13	
Dichloromethane	9.9	0.50	ug/L	10		99	70-130	2	30	10/03/13	
Di-isopropyl ether (DIPE)	10	3.0	ug/L	10		100	70-130	4	30	10/03/13	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		102	70-130	4	30	10/03/13	
Ethylbenzene	9.2	0.50	ug/L	10		92	70-130	0	30	10/03/13	
Hexachlorobutadiene	9.3	0.50	ug/L	10		93	70-130	14	30	10/03/13	
Isopropylbenzene	9.7	0.50	ug/L	10		97	70-130	2	30	10/03/13	
m,p-Xylenes	18	0.50	ug/L	20		92	70-130	1	30	10/03/13	
Methyl-t-butyl ether	21	0.50	ug/L	20		104	70-130	1	30	10/03/13	
Naphthalene	9.3	0.50	ug/L	10		93	70-130	15	30	10/03/13	
n-Butylbenzene	9.4	0.50	ug/L	10		94	70-130	1	30	10/03/13	
n-Propylbenzene	9.6	0.50	ug/L	10		96	70-130	1	30	10/03/13	
o-Xylene	9.2	0.50	ug/L	10		92	70-130	0	30	10/03/13	
p-Isopropyltoluene	9.7	0.50	ug/L	10		97	70-130	1	30	10/03/13	
sec-Butylbenzene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
Styrene	9.5	0.50	ug/L	10		95	70-130	4	30	10/03/13	
tert-Amyl Methyl Ether (TAME)	10	3.0	ug/L	10		100	70-130	10	30	10/03/13	
tert-Butyl alcohol (TBA)	10	2.0	ug/L	10		103	70-130	17	30	10/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A311594-BSD1)

tert-Butylbenzene	9.4	0.50	ug/L	10		94	70-130	2	30	10/03/13	
Tetrachloroethene (PCE)	9.4	0.50	ug/L	10		94	70-130	0	30	10/03/13	
Toluene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
trans-1,2-Dichloroethene	9.7	0.50	ug/L	10		97	70-130	2	30	10/03/13	
trans-1,3-Dichloropropene	9.5	0.50	ug/L	10		95	70-130	1	30	10/03/13	
Trichloroethene (TCE)	9.7	0.50	ug/L	10		97	70-130	1	30	10/03/13	
Trichlorofluoromethane	8.8	5.0	ug/L	10		88	70-130	2	30	10/03/13	
Vinyl Chloride	8.8	0.50	ug/L	10		88	70-130	1	30	10/03/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.9			5.0		98	70-130			10/03/13	
Surrogate: Bromofluorobenzene	4.9			5.0		99	70-130			10/03/13	

EPA 525.2 - Quality Control

Batch: A311693

Prepared: 10/3/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank (A311693-BLK1)

Alachlor	ND	1.0	ug/L							10/04/13	
Atrazine	ND	0.50	ug/L							10/04/13	
Benzo(a)pyrene	ND	0.10	ug/L							10/04/13	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							10/04/13	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							10/04/13	
Bromacil	ND	10	ug/L							10/04/13	
Butachlor	ND	0.38	ug/L							10/04/13	
Diazinon	ND	0.25	ug/L							10/04/13	
Dimethoate	ND	10	ug/L							10/04/13	
Metolachlor	ND	0.50	ug/L							10/04/13	
Metribuzin	ND	0.50	ug/L							10/04/13	
Molinate	ND	2.0	ug/L							10/04/13	
Propachlor	ND	0.50	ug/L							10/04/13	
Simazine	ND	1.0	ug/L							10/04/13	
Thiobencarb	ND	1.0	ug/L							10/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			5.1		100	70-130			10/04/13	

Blank Spike (A311693-BS1)

Alachlor	0.49	1.0	ug/L	0.50		97	70-130			10/04/13	
Atrazine	0.44	0.50	ug/L	0.50		88	70-130			10/04/13	
Benzo(a)pyrene	0.091	0.10	ug/L	0.10		91	70-130			10/04/13	
Bis(2-ethylhexyl) adipate	3.5	3.0	ug/L	3.0		114	70-130			10/04/13	
Bis(2-ethylhexyl) phthalate	3.6	3.0	ug/L	3.0		118	70-130			10/04/13	
Bromacil	1.9	10	ug/L	2.0		94	70-130			10/04/13	
Butachlor	1.1	0.38	ug/L	1.3		91	70-130			10/04/13	
Diazinon	0.050	0.25	ug/L	0.050		100	70-130			10/04/13	
Dimethoate	0.43	10	ug/L	0.50		86	70-130			10/04/13	
Metolachlor	2.5	0.50	ug/L	2.5		100	70-130			10/04/13	
Metribuzin	2.3	0.50	ug/L	2.5		91	70-130			10/04/13	
Molinate	2.8	2.0	ug/L	2.5		113	70-130			10/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A311693

Prepared: 10/3/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A311693-BS1)

Propachlor	2.9	0.50	ug/L	2.5		114	70-130			10/04/13	
Simazine	0.32	1.0	ug/L	0.35		92	70-130			10/04/13	
Thiobencarb	0.47	1.0	ug/L	0.50		94	70-130			10/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			5.0		99	70-130			10/04/13	

Blank Spike Dup (A311693-BSD1)

Alachlor	0.50	1.0	ug/L	0.50		99	70-130	2	30	10/04/13	
Atrazine	0.47	0.50	ug/L	0.50		94	70-130	6	30	10/04/13	
Benzo(a)pyrene	0.088	0.10	ug/L	0.10		88	70-130	4	30	10/04/13	
Bis(2-ethylhexyl) adipate	3.2	3.0	ug/L	3.0		105	70-130	9	30	10/04/13	
Bis(2-ethylhexyl) phthalate	3.2	3.0	ug/L	3.0		108	70-130	10	30	10/04/13	
Bromacil	2.2	10	ug/L	2.0		110	70-130	15	30	10/04/13	
Butachlor	1.3	0.38	ug/L	1.2		101	70-130	9	30	10/04/13	
Diazinon	0.044	0.25	ug/L	0.050		88	70-130	13	30	10/04/13	
Dimethoate	0.49	10	ug/L	0.50		99	70-130	14	30	10/04/13	
Metolachlor	2.6	0.50	ug/L	2.5		104	70-130	4	30	10/04/13	
Metribuzin	2.7	0.50	ug/L	2.5		106	70-130	15	30	10/04/13	
Molinate	2.7	2.0	ug/L	2.5		107	70-130	6	30	10/04/13	
Propachlor	2.9	0.50	ug/L	2.5		116	70-130	1	30	10/04/13	
Simazine	0.34	1.0	ug/L	0.35		97	70-130	5	30	10/04/13	
Thiobencarb	0.53	1.0	ug/L	0.50		106	70-130	11	30	10/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.3			5.0		106	70-130			10/04/13	

Matrix Spike (A311693-MS1), Source: A311912-02

Alachlor	0.51	1.0	ug/L	0.50	ND	102	70-130			10/04/13	
Atrazine	0.48	0.50	ug/L	0.50	ND	95	70-130			10/04/13	
Benzo(a)pyrene	0.12	0.10	ug/L	0.10	ND	122	70-130			10/04/13	
Bis(2-ethylhexyl) adipate	3.1	3.0	ug/L	3.0	ND	104	70-130			10/04/13	
Bis(2-ethylhexyl) phthalate	3.7	3.0	ug/L	3.0	ND	122	70-130			10/04/13	
Bromacil	2.3	10	ug/L	2.0	ND	118	70-130			10/04/13	
Butachlor	1.4	0.38	ug/L	1.2	ND	109	70-130			10/04/13	
Diazinon	0.044	0.25	ug/L	0.050	ND	88	70-130			10/04/13	
Dimethoate	0.58	10	ug/L	0.50	ND	117	70-130			10/04/13	
Metolachlor	2.7	0.50	ug/L	2.5	ND	109	70-130			10/04/13	
Metribuzin	2.9	0.50	ug/L	2.5	ND	115	70-130			10/04/13	
Molinate	3.0	2.0	ug/L	2.5	ND	118	70-130			10/04/13	
Propachlor	3.1	0.50	ug/L	2.5	ND	124	70-130			10/04/13	
Simazine	0.37	1.0	ug/L	0.35	ND	107	70-130			10/04/13	
Thiobencarb	0.51	1.0	ug/L	0.50	ND	101	70-130			10/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.3			5.0		107	70-130			10/04/13	

EPA 531.1 - Quality Control

Batch: A311765

Prepared: 10/6/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A311765-BLK1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A311765

Prepared: 10/6/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A311765-BLK1)

3-Hydroxycarbofuran	ND	2.0	ug/L							10/11/13	
Aldicarb	ND	2.0	ug/L							10/11/13	
Aldicarb Sulfone	ND	2.0	ug/L							10/11/13	
Aldicarb Sulfoxide	ND	2.0	ug/L							10/11/13	
Carbaryl	ND	2.0	ug/L							10/11/13	
Carbofuran	ND	2.0	ug/L							10/11/13	
Methomyl	ND	2.0	ug/L							10/11/13	
Oxamyl	ND	2.0	ug/L							10/11/13	

Blank Spike (A311765-BS1)

3-Hydroxycarbofuran	4.5	2.0	ug/L	4.2		109	80-120			10/11/13	
Aldicarb	4.2	2.0	ug/L	4.2		101	80-120			10/11/13	
Aldicarb Sulfone	4.6	2.0	ug/L	4.2		110	80-120			10/11/13	
Aldicarb Sulfoxide	4.0	2.0	ug/L	4.2		97	80-120			10/11/13	
Carbaryl	4.4	2.0	ug/L	4.2		105	80-120			10/11/13	
Carbofuran	4.4	2.0	ug/L	4.2		105	80-120			10/11/13	
Methomyl	4.2	2.0	ug/L	4.2		100	80-120			10/11/13	
Oxamyl	5.1	2.0	ug/L	4.2		123	80-120			10/11/13	BS High

Blank Spike Dup (A311765-BSD1)

3-Hydroxycarbofuran	4.4	2.0	ug/L	4.2		105	80-120	4	20	10/11/13	
Aldicarb	4.2	2.0	ug/L	4.2		101	80-120	0	20	10/11/13	
Aldicarb Sulfone	4.3	2.0	ug/L	4.2		103	80-120	6	20	10/11/13	
Aldicarb Sulfoxide	4.0	2.0	ug/L	4.2		95	80-120	2	20	10/11/13	
Carbaryl	4.4	2.0	ug/L	4.2		105	80-120	1	20	10/11/13	
Carbofuran	4.3	2.0	ug/L	4.2		102	80-120	3	20	10/11/13	
Methomyl	4.1	2.0	ug/L	4.2		99	80-120	1	20	10/11/13	
Oxamyl	4.9	2.0	ug/L	4.2		117	80-120	5	20	10/11/13	

Matrix Spike (A311765-MS1), Source: A3J0471-01

3-Hydroxycarbofuran	4.2	2.0	ug/L	4.2	ND	100	65-135			10/11/13	
Aldicarb	4.7	2.0	ug/L	4.2	ND	114	65-135			10/11/13	
Aldicarb Sulfone	4.8	2.0	ug/L	4.2	ND	102	65-135			10/11/13	
Aldicarb Sulfoxide	4.7	2.0	ug/L	4.2	ND	99	65-135			10/11/13	
Carbaryl	4.2	2.0	ug/L	4.2	ND	101	65-135			10/11/13	
Carbofuran	4.0	2.0	ug/L	4.2	ND	96	65-135			10/11/13	
Methomyl	4.4	2.0	ug/L	4.2	ND	106	65-135			10/11/13	
Oxamyl	5.5	2.0	ug/L	4.2	ND	122	65-135			10/11/13	

EPA 547 - Quality Control

Batch: A311409

Prepared: 9/27/2013

Prep Method: EPA 547

Analyst: RJB

Blank (A311409-BLK1)

Glyphosate	ND	25	ug/L							09/27/13	
Surrogate: AMPA	110			100		109	70-130			09/27/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 547 - Quality Control

Batch: A311409

Prepared: 9/27/2013

Prep Method: EPA 547

Analyst: RJB

Blank Spike (A311409-BS1)

Glyphosate	120	25	ug/L	100		116	70-130			09/27/13	
Surrogate: AMPA	100			100		104	70-130			09/27/13	

Blank Spike Dup (A311409-BSD1)

Glyphosate	100	25	ug/L	100		105	70-130	10	30	09/27/13	
Surrogate: AMPA	110			100		106	70-130			09/27/13	

Matrix Spike (A311409-MS1), Source: A311911-01

Glyphosate	110	25	ug/L	100	ND	104	70-130			09/28/13	
Surrogate: AMPA	100			100		101	70-130			09/28/13	

Matrix Spike (A311409-MS2), Source: A312214-01

Glyphosate	110	25	ug/L	100	ND	108	70-130			09/28/13	
Surrogate: AMPA	110			100		106	70-130			09/28/13	

Matrix Spike Dup (A311409-MSD1), Source: A311911-01

Glyphosate	110	25	ug/L	100	ND	107	70-130	3	30	09/28/13	
Surrogate: AMPA	110			100		106	70-130			09/28/13	

EPA 548.1 - Quality Control

Batch: A311487

Prepared: 9/30/2013

Prep Method: EPA 548.1

Analyst: KHH

Blank (A311487-BLK1)

Endothall	ND	45	ug/L							10/02/13	
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Blank Spike (A311487-BS1)

Endothall	14	45	ug/L	20		69	60-111			10/02/13	
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Blank Spike Dup (A311487-BSD1)

Endothall	14	45	ug/L	20		72	60-111	4	46	10/02/13	
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Matrix Spike (A311487-MS1), Source: A311912-01

Endothall	3.9	45	ug/L	20	ND	20	10-122			10/02/13	
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EPA 549.2 - Quality Control

Batch: A311486

Prepared: 9/30/2013

Prep Method: EPA 549.2

Analyst: PYA

Blank (A311486-BLK1)

Diquat	ND	4.0	ug/L							10/03/13	
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Blank Spike (A311486-BS1)

Diquat	3.5	4.0	ug/L	4.0		88	70-130			10/03/13	
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Blank Spike Dup (A311486-BSD1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 549.2 - Quality Control

Batch: A311486

Prepared: 9/30/2013

Prep Method: EPA 549.2

Analyst: PYA

Blank Spike Dup (A311486-BSD1)

Diquat	3.5	4.0	ug/L	4.0		88	70-130	1	30	10/03/13	
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Matrix Spike (A311486-MS1), Source: A311911-01

Diquat	3.1	4.0	ug/L	4.0	ND	77	70-130			10/03/13	
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Matrix Spike (A311486-MS2), Source: A311911-02

Diquat	3.4	4.0	ug/L	4.0	ND	86	70-130			10/03/13	
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Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of California - ELAP	1180	State of Nevada	CA000792009A
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA
State of California - NELAP	04227CA	State of Oregon	4017
State of Washington	C997	State of Oregon - NWTTPH	4021

BSK is not accredited under the NELAC program for the following parameters:

Boron	Silica (SiO2)	Strontium
Threshold Odor		

A3I2214



California American Water

Calif3295



09262013

Turnaround: Standard
Due Date: 10/11/2013



*Required Fields

Temp: 4.4

Company/Client Name*: California American Water-Monterey		Report Attention*: Travis Peterson Additional cc's: Sarp Sekeroglu		Invoice To*: PO#:		Phone*: 831-646-329		Fax*:	
Address*: PO Box 951		City*: Monterey		State*: CA		Zip*: 93942		E-mail*: travis.peterson@amwater.com & ssekeroglu@rbf.com	

Project: Water Quality Analysis		Project #:		Regulatory Carbon Copies		Alk, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC		Disolved Metals (lab to filter) Ba, B, Ca, Cu, Fe, Mg, K, Si, Na, St		Total Metals: Al, As, Fe, Mn, Zn		Dissolved: FI, Bromide, Chloride, P, orthoc-P, Sulfate, Mass Balance		Dissolved: TKN, Ammonia, Nitrite		Nitrate + Nitrite as N, NO3		EPA 524, 504, 505, 515, 525, 531, 547, 548, 549		EXT-Lithium, EXT-Dioxin, EXT-Tritium, EXT-Dissolved Iodide	
Reporting Options: <input type="checkbox"/> Trace (J-Flag) <input type="checkbox"/> Swamp <input type="checkbox"/> EDD Type:		How would you like your completed results sent?*		Regulatory Compliance		EDT to California DPH		System Number*:		Geotracker #:											
Sampler Name (Printed/Signature)*: Sarp Sekeroglu		TAT* <input checked="" type="checkbox"/> Standard - 10 Business Days <input type="checkbox"/> **Rush: Date Needed		**Surcharge																	

#	Sample Description*	Sampled*		Matrix*	Comments / Station Code / WTRAX	Alk, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC	Disolved Metals (lab to filter) Ba, B, Ca, Cu, Fe, Mg, K, Si, Na, St	Total Metals: Al, As, Fe, Mn, Zn	Dissolved: FI, Bromide, Chloride, P, orthoc-P, Sulfate, Mass Balance	Dissolved: TKN, Ammonia, Nitrite	Nitrate + Nitrite as N, NO3	EPA 524, 504, 505, 515, 525, 531, 547, 548, 549	EXT-Lithium, EXT-Dioxin, EXT-Tritium, EXT-Dissolved Iodide
		Date	Time										
1	As listed in the attached sheet	9/24	8:30 AM	seawater salinity levels		X	X	X	X	X	X	X	X
	Row to run out of hold time MA												
	9/24/13												

Relinquished by: (Signature and Printed Name) Sarp Sekeroglu		Company RBF		Date 9/25	Time	Received by: (Signature and Printed Name)		Company	
Relinquished by: (Signature and Printed Name)		Company		Date	Time	Received by: (Signature and Printed Name)		Company	
Received for Lab by: (Signature and Printed Name)		Date 9/24/13		Time 1:58	Payment Received at Delivery:		Check / Cash		
Shipping Method: <input checked="" type="checkbox"/> CONTRAC <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> WALK-IN <input type="checkbox"/> FED EX <input type="checkbox"/> Counter		Custody Seal: Y (N)		Amount:		PIA#		Init.	
Cooling Method: <input checked="" type="checkbox"/> Wet <input type="checkbox"/> Blue <input type="checkbox"/> None		Chilling Process: Begun (Y/N)		BN/Foam					

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$			Were correct containers and preservatives received for the tests requested?			
	If samples were taken today, is there evidence that chilling has begun?			Were there bubbles in the VOA vials? (Volatiles Only)			
	Did all bottles arrive unbroken and intact?			Was a sufficient amount of sample received?			
	Did all bottle labels agree with COC?			Do samples have a hold time < 72 hours?			
	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?			Was RM notified of discrepancies? PM: <u>Renée</u> By/Time:			
	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?				
	Bacti- $\text{Na}_2\text{S}_2\text{O}_3$	—	—				
	None (P) ^{White Cap}	—	—	2C, 13, 1A			
	CrB Buffer (P) ^{Blue Cap}	pH 9-9.5	Y N				
	HNO_3 (P) ^{Red Cap}	—	—	2B			
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y N				
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y N				
	NaOH + ZnAc (P)	pH ≥ 9	Y N				
	Dissolved Oxygen 300ml (g)	—	—				
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—	2C, 13			
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—	1C			
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—	2C, 2A			
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—				
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—	IV			
	$\text{Na}_2\text{S}_2\text{O}_3$ + MCAA (CG) ^{Orange Label} 531	pH = 3	⊕ N	IV		9.26.13	
	NH_4Cl (AG) ^{Purple Label} 552	—	—				
	EDA (AG) ^{Brown Label} DBPs	—	—	1A			
	Ascorbic + Maleic (AG) ^{Lt Green Label} 524.3	—	—				
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/824	—	—	3V			
	Buffer pH 4 (CG)	—	—				
	None (CG)	—	—				
	H_3PO_4 (CG) ^{Salmon Label}	—	—				
	Other:						
	Asbestos 1Liter Plastic w/ Foil	—	—				
	Low Level Hg / Metals Double Baggie	—	—				
	Bottled Water	—	—				
	Clear Glass Jar: 250 / 500 / 1-Liter	—	—				
	Soil Tube Brass / Steel / Plastic	—	—				
	Tedlar Bag / Plastic Bag	—	—				
Split		Container	Preservative	Date/Time/Initials	Container	Preservative	Date/Time/Initials
	S P				S P		
	S P				S P		
Comments	Out of hold time for 48 hr tests						

Labeled by: NR @ 10/14

Labels checked by: JRW @ 10/19

RUSH Paged by: _____

External



A3I2214





Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-6800

October 21, 2013

Mr. Michael Ng
BSK Analytical Laboratories
1414 Stanislaus St.
Fresno, CA 93706

RE: Project: A3I2214
Pace Project No.: 30104560

Dear Mr. Ng:

Enclosed are the analytical results for sample(s) received by the laboratory on October 07, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins

jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS
G-1202

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: A312214
Pace Project No.: 30104560

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
ACCLASS DOD-ELAP Accreditation #: ADE-1544
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California/TNI Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Guam/PADEP Certification
Hawaii/PADEP Certification
Idaho Certification
Illinois/PADEP Certification
Indiana/PADEP Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana/TNI Certification #: LA080002
Louisiana/TNI Certification #: 4086
Maine Certification #: PA0091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification

Missouri Certification #: 235
Montana Certification #: Cert 0082
Nevada Certification
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerlo Rico Certification #: PA01457
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188
Utah/TNI Certification #: ANTE
Vermont Dept. of Health; ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia Certification #: 143
Wisconsin/PADEP Certification
Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: A312214
Pace Project No.: 30104560

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30104560001	A312214-01	Water	09/24/13 15:00	10/07/13 09:45

REPORT OF LABORATORY ANALYSIS

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G-1204



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Greensburg, PA 15601
(724)850-6600

SAMPLE ANALYTE COUNT

Project: A3I2214
Pace Project No.: 30104560

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30104560001	A3I2214-01	EPA 906.0	SLA	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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G-1205



PROJECT NARRATIVE

Project: A312214
Pace Project No.: 30104560

Method: EPA 906.0
Description: 906.0 Tritium
Client: BSK Analytical Laboratories
Date: October 21, 2013

General Information:

1 sample was analyzed for EPA 906.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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G-1206



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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: A312214
Pace Project No.: 30104560

Sample: A312214-01	Lab ID: 30104560001	Collected: 09/24/13 15:00	Received: 10/07/13 09:45	Matrix: Water		
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Tritium	EPA 906.D	-68.2 ± 108 (199)	pCi/L	10/12/13 22:15	10028-17-8	



Pace Analytical Services, Inc.
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5500

QUALITY CONTROL DATA

Project: A3I2214
 Pace Project No.: 30104560

QC Batch: RADC/17374 Analysis Method: EPA 906.0
 QC Batch Method: EPA 906.0 Analysis Description: 906.0 Tritium
 Associated Lab Samples: 30104560001

METHOD BLANK: 641961 Matrix: Water
 Associated Lab Samples: 30104560001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Tritium	89.3 ± 124 (208)	pCi/L	10/12/13 14:06	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: A312214
Pace Project No.: 30104560

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PRL - Pace Reporting Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Act - Activity
Unc - Uncertainty
(MDC) - Minimum Detectable Concentration
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER

A312214

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical-Radiochem
1638 Roseytown Rd Ste 2,3,4
Greensburg, PA 15601
Phone : (724) 850-5600
Fax: (724) 722-5208
Turnaround (Days): Standard
QC Deliverables: I Std III IV

30104560

Sample ID	Samp Desc	Comments	Sample Date
-----------	-----------	----------	-------------

A312214-01	Seawater		09/24/2013 15:00 001
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Matrix: Water

Analysis 250 mL AG w/ NONE
EXT-Tritium

High salinity sample.

Non preserved glass container

Released By [Signature] Date 9-30-13 Received By [Signature] Date 10-27-13 0945

Released By _____ Date _____ Received By _____ Date _____

Sample Condition Upon Receipt



Client Name: BSK

Project # 30104560

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 1Z9R2XC9210356748799

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 5 6 7

Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature NA

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/10/13

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>NA</u>		
All containers needing preservation have been checked:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: <u>PAV</u> Lot # of added preservative:
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

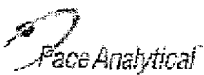
Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature]

Date: 10/8/13

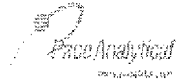
Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out-of temp, incorrect containers)



Project Number: 30104560
 Client Name: BSK

Item No.	Matrix Code	Sample Description	Volume	Analysis
100	WJ-1	Glass Jar (2 SB, 1M, soil jar)	120 / 250 / 500 / 1L	
		Soil kit (2 SB, 1M, soil jar)		
		Chemistry (250 / 500 / 1L)		
		Organics (1L)		
		Nutrient (250 / 500)		
		Phenolics (250 ml)		
		TOC (40 ml / 250 ml)		
		TOX (250 ml)		
		Total Metals		
		Dissolved Metals preserved Y		
		N		
		O & G (1L)		
		TPH (1L)		
		VOC (40 ml 30 ml)		
		Cyanide (250 ml)		
		Sulfide (500 ml)		
		Bacteria (120 ml)		
		Wipes / swipe/ smear/ filter		
		Radchem Nalgene (125 / 250 / 500 / 1L)		
		Radchem Nalgene (1/2 gal. / 1 gal.)		
		Cubitainer (600 ml / 4L)		
		Ziploc		
		Other		
		Other		

Quality Control Sample Performance Assessment



Analyst: SLA
Date: 10/14/2013 Method: EPA 806 C
Worklist: 17374 SOP: PGR-R-021
Matrix: DW MB Sample ID: 641981

Method Blank Assessment						
Analyte	Activity	1.95 Sig Unc.	MDC	Critical Value	Flag	Assessment
Tritium	99.2800	123.9000	209.0000	99.71000		

Laboratory Control Sample Assessment						
	LCS	LCS/D	LCS	LCS/D	LCS	LCS/D
Analyte:	Dilutions					
Cost of Date:	10/13/13 4.23	10/13/13 5.24				
Spike I.D.:	19-003	19-093				
Spike Concentration (pCi/L):	2538.638	2539.642				
Volume Used (mL):	0.100	0.100				
Aliquot Volume (L, g, F):	0.100	0.100				
Target Conc. (pCi/L, g, F):	2392.085	2173.950				
1.96 Sigma Uncertainty (calculated):	85.628	89.698				
Result (pCi/L, g, F):	5765.180	1992.680				
1.95 Sigma Unc:	224.490	211.400				
% Recovery:	99.95%	91.70%				
Assessment:	Pass	Pass				
Upper % Recovery Limits:	125.00%	125.00%				
Lower % Recovery Limits:	75.00%	75.00%				

Duplicate Sample Assessment	
LCS/LCSD Y or NP:	Y
Analyte:	Tritium
Sample I.D.:	LCS17374
Duplicate Sample I.D.:	LCS017374
Sample Result (pCi/L, g, F):	2155.1500
1.95 Sigma Unc:	324.4600
Sample Duplicate Result (pCi/L, g, F):	1992.9800
Duplicate Sample 1.95 Sigma Unc:	211.4000
Either results below MDC?	N
Relative Percent Difference:	8.33%
Assessment:	Pass
% RPD Limit:	25.00%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC

Comments:

10/14/13

Sample Matrix Spike Control Assessment			
Analyte:	Tritium	Tritium	
Sample Collection Date:	10/13/2013	9/24/2013	
Sample I.D.:	30104626001	30104626001	
Sample MS I.D.:	30104626001MS	30104626001MS	
Sample MSD I.D.:			
Spike I.D.:	12-003	12-003	
MS/MSD Decay Corrected Spike Conc. (pCi/L):	2542.770	2546.221	
Spike Volume Used in MS (mL):	0.20	0.20	
Spike Volume Used in MSD (mL):			
MS Aliquot (L, g, F):	0.1012	0.1015	
MS Target Conc. (pCi/L, g, F):	5027.223	5019.178	
MSD Aliquot (L, g, F):			
MSD Target Conc. (pCi/L, g, F):			
MS Spike uncertainty (calculated):	137.247	137.369	
MSD Spike uncertainty (calculated):			
Sample Result:	32.950	-56.220	
Sample 1.96 Sigma Unc.:	118.900	107.100	
Sample Matrix Spike Result:	-4913.240	4725.690	
Sample MS 1.95 Sigma Unc.:	305.100	301.000	
Sample Matrix Spike Duplicate Result:			
Sample MSD 1.95 Sigma Unc.:			
MS % Recovery:	97.08%	95.53%	
MSD % Recovery:			
MS Assessment:	Pass	Pass	
MSD Assessment:			
MS/MSD Upper % Recovery Limits:	125.00%	125.00%	
MS/MSD Lower % Recovery Limits:	75.00%	75.00%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment			
Analyte:			
Sample I.D.:			
Sample MS I.D.:			
Sample MSD I.D.:			
Sample Matrix Spike Result:			
Sample Matrix Spike 1.95 Sigma Unc.:			
Sample Matrix Spike Duplicate Result:			
Sample Matrix Spike Duplicate 1.95 Sigma Unc.:			
MS/MSD Relative Percent Difference:			
MS/MSD RPD Assessment:			
% RPD Limit:			



1638 Roseytown Road
Greensburg, PA 15601
(724)850-5600

SAMPLE ACKNOWLEDGMENT

Samples Submitted By: BSK Analytical Laboratories
Client Project ID: A312214
Client PO#:

Pace Project Manager: Jacquelyn Collins
Phone (724)850-5600
jacquelyn.collins@pacelabs.com

Pace Analytical Project ID: 30104560
Samples Received: October 7, 2013 09:45 AM

Estimated Completion: October 28, 2013

CC: Mr. Michael Ng

Customer Sample ID	Pace Analytical Lab ID	Matrix	Date/Time Collected	Method
A312214-01	30104560001	Water	09/24/13 15:00	906.0 Tritium

Please contact your project manager if you recognize any discrepancy in this form or have any questions about your project.

Thank you for choosing Pace Analytical Services, Inc.

G-1214



1638 Roseytown Road
Greensburg, PA 15601
(724)850-5600

SAMPLE ACKNOWLEDGMENT

Analyte List

Customer Sample ID	Method	Compound	Reporting Limit Units
A312214-01	906.0 Tritium	Tritium	



Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Michael Ng
BSK Analytical Laboratories
1414 Stanislaus Street
Fresno CA 93706

Report Information:

Pace Project #: 10243972
Sample Receipt Date: 10/01/2013
Client Project #: A3I2214
Client Sub PO #: N/A
State Cert #: 01155CA

**REPORT OF
LABORATORY
ANALYSIS FOR
2,3,7,8-TCDD**

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 Drinking Water Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Brittany Hansen, your Pace Project Manager.

Report Summary:

This report contains results of one drinking water sample analyzed to determine 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613 by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

This report has been reviewed by:

October 15, 2013

Brittany Hansen, Project Manager
(612) 607-6429
(612) 607-6444 (fax)
brittany.hansen@pacelabs.com

Report Prepared Date:

October 15, 2013



Report of Laboratory Analysis

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612- 607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Mississippi	MN00064
Alaska	MN00064	Montana	92
Arizona	AZ0014	Nebraska	
Arkansas	88-0680	Nevada	MN_00064_200
California	01155CA	New Jersey (NE)	MN002
Colorado	MN00064	New Mexico	MN00064
Connecticut	PH-0256	New York (NEL)	11647
EPA Region 5	WD-15J	North Carolina	27700
EPA Region 8	8TMS-Q	North Dakota	R-036
Florida (NELAP)	E87605	Ohio	4150
Georgia (DNR)	959	Oklahoma	D9922
Guam	959	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL)	MN300001-001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennessee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	03086	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.
G-1217



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

1024397



1121

SUBCONTRACT ORDER

A312214

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

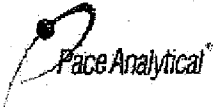
Pace Analytical-Dioxin
1700 Elm Street S.E. Suite 200
Minneapolis, MN 55414
Phone : (612) 607-1700
Fax: (612) 607-6444
Turnaround (Days): Standard
QC Deliverables: I Std III IV

Table with 4 columns: Sample ID, Samp Desc, Comments, Sample Date. Row 1: A312214-01, Seawater, High salinity sample., 09/24/2013 15:00

Matrix: Water

Analysis (1) CAGW / NONE
EXT-Dioxin-DW matrix, EPA 1613 2,3,7,8-TCDD

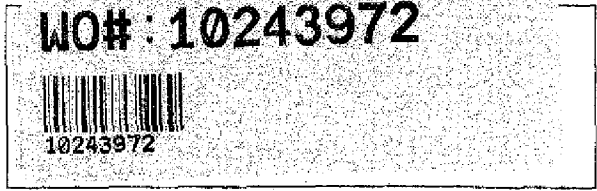
Released By: [Signature] Date: 9-30-13 Received By: CSI/Pace Date: 10-1-13
Released By: Date: Received By: Date:

	Document Name: Sample Condition Upon Receipt Form	Document Revised: 19Sep2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.07	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: BOK

Project #: WO# : 10243972



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Tracking Number: 7968 0079 8922

Optional: Proj. Due Date: _____ Proj. Name: _____

Custody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No

Packing Material: Bubble Wrap Bubble Bags None Other: _____ Temp Blank? Yes No

Thermom. Used: 80512447 72337080 B88A912167504 B88A9132521491 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temp Read (°C): 0.9 Cooler Temp Corrected (°C): 0.7 Biological Tissue Frozen? Yes No

Temp should be above freezing to 6°C Correction Factor: -0.2 Date and Initials of Person Examining Contents: 07/10/13

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>		
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Sample #
Exceptions: VOA, Coliform, TDC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____		

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____

Date/Time: _____

Comments/Resolution: _____

Project Manager Review: BH2

Date: 10/2/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Drinking Water Analysis Results
2,3,7,8-TCDD – USEPA Method 1613B

Sample ID.....A312214-01 Seawater Date Collected.....09/24/2013
Client..... BSK Analytical Laboratories Date Received.....10/01/2013
Lab Sample ID..... 10243972001 Date Extracted.....10/03/2013

	Sample A312214-01 Seawa	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	ND	ND	--	--
RL	5.0 pg/L	5.0 pg/L	--	--
2,3,7,8-TCDD Recovery	--	--	121%	94%
Spike Recovery Limit	--	--	73-146%	73-146%
RPD				25.6%
IS Recovery	62%	68%	70%	59%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	73%	96%	83%	67%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	F131011A_10	R131008A_09	R131008A_07	F131009A_13
Analysis Date	10/11/2013	10/08/2013	10/08/2013	10/09/2013
Analysis Time	10:40	16:56	15:47	17:23
Analyst	CVS	CVS	CVS	SMT
Volume	1.011L	1.005L	1.005L	1.014L
Dilution	NA	NA	NA	NA
ICAL Date	10/09/2013	07/19/2013	07/19/2013	10/09/2013
CCAL Filename	F131011A_05	R131008A_06	R131008A_06	F131009A_06

! = Outside the Control Limits
 ND = Not Detected
 RL = Reporting Limit
 Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A
 RPD = Relative Percent Difference of Lab Spike Recoveries
 IS = Internal Standard [2,3,7,8-TCDD-¹³C₁₂]
 CS = Cleanup Standard [2,3,7,8-TCDD-³⁷Cl₄]

Analyst: *Chuck Susper*



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Certificate of Analysis

Report Date: 11/06/13 13:57
Received Date: 10/01/13 08:50
Turnaround Time: Normal

Project: A3I2214

Phones: (559) 497-2888
Fax: (559) 485-6935

P.O. #:

Attn: Michael Ng

Client: BSK Analytical Laboratories
 550 West Locust Avenue
 Fresno, CA 93650

Dear Michael Ng :

Enclosed are the results of analyses for samples received 10/1/2013 with the Chain of Custody document. The samples were received in good condition, at 3.0 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab Sample ID: 3J01002-01	Sample ID: A3I2214-01	Matrix: Water								
Sampled by: Client	Sampled: 09/24/13 15:00									
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Lithium, Total	27	1.4	10	ug/l	1	EPA 200.7	10/3/13	10/4/13 10:39	W3J0195	
Iodide, Dissolved	64	0.21	10	ug/l	1	EPA 9056A	11/5/13	11/5/13 19:57	W3K0192	Q-14



Certificate of Analysis
Quality Control Section

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

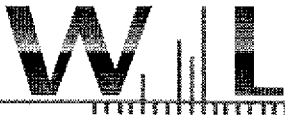
Batch W3K0192 - EPA 9056A

Blank (W3K0192-BLK1)					Prepared: 11/05/13		Analyzed: 11/05/13 19:57		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved		ND		ug/l					
LCS (W3K0192-BS1)					Prepared: 11/05/13		Analyzed: 11/05/13 19:57		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved		35.3		ug/l	40.0	88	85-115		
Matrix Spike (W3K0192-MS1)					Prepared: 11/05/13		Analyzed: 11/05/13 19:57		
		Source: 3J15074-01							
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved	179	368		ug/l	200	94	80-120		
Matrix Spike Dup (W3K0192-MSD1)					Prepared: 11/05/13		Analyzed: 11/05/13 19:57		
		Source: 3J15074-01							
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved	179	355		ug/l	200	88	80-120	3	20

Metals by EPA 200 Series Methods - Quality Control

Batch W3J0195 - EPA 200.7

Blank (W3J0195-BLK1)					Prepared: 10/03/13		Analyzed: 10/04/13 10:37		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total		ND		ug/l					
LCS (W3J0195-BS1)					Prepared: 10/03/13		Analyzed: 10/04/13 10:34		
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total		972		ug/l	1000	97	85-115		
Matrix Spike (W3J0195-MS1)					Prepared: 10/03/13		Analyzed: 10/04/13 10:59		
		Source: 3J02035-01							
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total	11.7	1040		ug/l	1000	103	70-130		
Matrix Spike Dup (W3J0195-MSD1)					Prepared: 10/03/13		Analyzed: 10/04/13 11:02		
		Source: 3J02035-01							
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total	11.7	1030		ug/l	1000	102	70-130	0.8	30



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.

Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.

The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Kim G Tu (Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

Q-14	This analysis was requested by the client after the holding time was exceeded.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable



SUBCONTRACT ORDER

A312214

3J01002

SENDING LABORATORY:

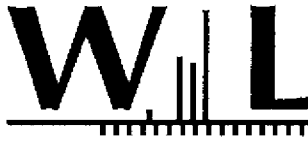
BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E Clark Avenue
City of Industry, CA 91745-1396
Phone: (626) 336-2139
Fax: (626) 336-2634
Turnaround (Days): Standard
QC Deliverables: I Std III IV

Sample ID	Samp Desc	Comments	Sample Date
A312214-01	Seawater		09/24/2013 15:00
	Matrix: Water	High salinity sample.	
	Analysis 250 ml P w/ NONE		
	EXT-Iodide	Dissolved	
	EXT-Miscellaneous 500 ml P w/ HNO3	Lithium	

Released By	<i>[Signature]</i>	Date	9/30/13	Received By	Ontrac	Date	
Released By	Ontrac	Date		Received By	Jamie Grier	Date	10/1/13 00150 30°C



Weck Laboratories, Inc.

Environmental and Analytical Services - Since 1964

Sample Receipt Acknowledgement

WORK ORDER: 3J01002

Printed: 10/2/2013 3:00:24PM

Client: BSK Analytical Laboratories

Project Manager: Kim G Tu

Project: Metals

Project Number: A312214

Report To:

BSK Analytical Laboratories

Michael Ng

550 West Locust Avenue

Fresno, CA 93650

Phone: (559) 497-2888

Fax: (559) 485-6935

Invoice To:

BSK Analytical Laboratories

Accounts Payable - Anise Foote

550 West Locust Avenue

Fresno, CA 93650

Phone : (559) 497-2888

Fax: (559) 485-6935

Date Due: 10/15/13 15:00 (10 day TAT)

Received By: Jaime Gomez

Date Received: 10/01/13 08:50

Logged In By: Jaime Gomez

Date Logged In: 10/01/13 08:57

Samples Received at:	3°C	All containers intact:	Yes	Chain of custody completed:	Yes
Number of Ice chests/packages:	1	Custody seals present:	NA	Sample labels & COC agree:	Yes
Appropriate Sample Containers:	Yes	Custody seals intact:	NA	Samples preserved properly:	Yes
		Samples received on ice:	Yes	Sample volume sufficient:	Yes
		Custody Seals:	No	Sufficient holding time for all tests:	Yes

Analysis	TAT	Expires	Comments
3J01002-01 A312214-01 [Water] Sampled 09/24/13 15:00 Pacific			
Iodide water 9056M	10	10/22/13 15:00	
200.7 Li_diss	10	03/23/14 15:00	

Comments:

10/2/2013

Authorized Signature

Date

Note:

If any of the information included in this sample receipt acknowledgement is incorrect (sample information, analysis, etc), please contact the lab at (626) 336-2139. Thank you.



Fresno Analytical Laboratory
1414 Stanislaus St.
Fresno, CA 93706
559-497-2888 (Main)
559-485-6935 (Fax)

Travis Peterson
California American Water
836 Carmel Ave.
Monterey, CA 93940

RE: Report for A3I2260 Water Quality Analysis

Dear Travis Peterson,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 9/27/2013. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2003 NELAC Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Michael Ng, Project Manager

If additional clarification of any information is required, please contact your Project Manager, Michael Ng, at (800) 877-8310 or (559) 497-2888 x118.



Case Narrative

Project and Report Details	Invoice Details
----------------------------	-----------------

Client: California American Water
Report To: Travis Peterson
Project #: Water Quality Analysis
Received: 9/27/2013 - 08:30
Report Due: 10/11/2013

Invoice To: California American Water
Invoice Attn: Accounts Payable
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler	Containers Intact
Temperature on Receipt °C: 12.5	COC/Labels Agree
	Received On Wet Ice
	Packing Material - Bubble Wrap
	Sample(s) were received in temperature range.
	Initial receipt at BSK-SAC

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

- BS Blank spike recoveries did not meet acceptance limits.
- BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this parameter.
- DL01 Sample required dilution due to matrix or high concentration of non-target analyte.
- HT04 Holding time exceeded. Sample analysis performed past holding time.
- HT08 Holding time exceeded. The holding time for this analysis is a recommendation and is not mandated by any state or federal agency.
- MS02 Matrix spike recovery was low; the associated blank spike recovery was acceptable.
- MS1.0 Matrix spike recoveries exceed control limits. No material impact as Blank Spike recoveries are within method control limits.
- SR02 Surrogate recovery was above acceptance limits. No target analytes were detected in the sample.
- X01 Sample filtered prior to analysis per client request

Report Distribution

Recipient(s)	Report Format
Travis Peterson	Final.rpt
Sarp Sekeroglu	Final.rpt

Certificate of Analysis

Sample ID: A3I2260-01
Sampled By: Sarp Sekeroglu
Sample Description: Water Samples

Sample Date - Time: 09/25/13 - 17:00
Matrix: Water
Sample Type: Grab

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Alkalinity as CaCO3	SM 2320 B	150	3.0	mg/L	1	A311377	09/27/13	09/27/13	
Bicarbonate as CaCO3	SM 2320 B	150	3.0	mg/L	1	A311377	09/27/13	09/27/13	
Carbonate as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A311377	09/27/13	09/27/13	
Hydroxide as CaCO3	SM 2320 B	ND	3.0	mg/L	1	A311377	09/27/13	09/27/13	
Ammonia as N	SM 4500-NH3 G	0.78	0.10	mg/L	1	A311778	10/07/13	10/08/13	X01
Bromide	EPA 300.1	65	5.0	mg/L	1000	A311561	10/02/13	10/02/13	
Surrogate: Dichloroacetate	EPA 300.1	108 %	<i>Acceptable range: 90-115 %</i>						
Chloride	EPA 300.0	19000	500	mg/L	500	A311404	09/27/13	09/27/13	
Color, Apparent	SM 2120 B	20	1.0	CU	1	A311368	09/27/13 15:37	09/27/13	
Conductivity @ 25C	SM 2510 B	43000	1.0	umhos/cm	1	A311377	09/27/13	09/27/13	
Fluoride	EPA 300.0	ND	0.50	mg/L	5	A311580	10/02/13	10/02/13	DL01
Mass Balance-Anions		580		meq/L					
Mass Balance-Dissolved Cations		570		meq/L					
MBAS, Calculated as LAS, mol wt 340	SM 5540 C	ND	0.050	mg/L	1	A311369	09/27/13 15:46	09/27/13	
Nitrate as NO3	EPA 300.0	ND	500	mg/L	500	A311404	09/27/13 19:21	09/27/13	DL01, HT04
Nitrite as N	EPA 300.0	ND	25	mg/L	500	A311404	09/27/13 19:21	09/27/13	DL01, HT04
Threshold Odor	SM 2150 B	10	1.0	T.O.N.	1	A311368	09/27/13 15:37	09/27/13	HT08
Orthophosphate as P	SM 4500-P E	0.042	0.010	mg/L	1	A311398	09/27/13 15:25	09/27/13	
pH (1)	SM 4500-H+ B	7.7		pH Units	1	A311377	09/27/13	09/27/13	
pH Temperature in °C		21.9							
Phosphorus - Dissolved (1)	EPA 365.4	ND	0.10	mg/L	1	A311800	10/07/13	10/09/13	
Sulfate as SO4	EPA 300.0	2500	1000	mg/L	500	A311404	09/27/13	09/27/13	
Total Dissolved Solids	SM 2540C	34000	5.0	mg/L	1	A311575	10/02/13	10/07/13	
Total Kjeldahl Nitrogen - Dissolved (1)	EPA 351.2	ND	1.0	mg/L	1	A311800	10/07/13	10/09/13	
Total Oxidizable Nitrogen, as N - Dissolved (1)	SM 4500-NO3 F	ND	0.10	mg/L	1	A311810	10/07/13	10/07/13	
Turbidity	SM 2130 B	5.1	0.10	NTU	1	A311368	09/27/13 15:37	09/27/13	

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Aluminum	EPA 200.7	0.068	0.050	mg/L	1	A311463	10/01/13	10/05/13	
Arsenic	EPA 200.8	13	4.0	ug/L	2	A311463	10/01/13	10/09/13	
Barium - Dissolved (1)	EPA 200.7	ND	0.50	mg/L	10	A311497	10/01/13	10/04/13	
Boron - Dissolved (1)	EPA 200.7	4.3	1.0	mg/L	10	A311497	10/01/13	10/04/13	
Calcium	EPA 200.7	340	0.10	mg/L	1	A311463	10/01/13	10/05/13	
Calcium - Dissolved (1)	EPA 200.7	400	1.0	mg/L	10	A311497	10/01/13	10/04/13	
Copper	EPA 200.8	54	10	ug/L	2	A311463	10/01/13	10/09/13	
Hardness as CaCO3	SM 2340B	5300	0.41	mg/L					
Iron	EPA 200.7	0.65	0.030	mg/L	1	A311463	10/01/13	10/05/13	
Iron - Dissolved (1)	EPA 200.7	ND	0.30	mg/L	10	A311497	10/01/13	10/04/13	
Magnesium	EPA 200.7	1100	0.10	mg/L	1	A311463	10/01/13	10/05/13	

Certificate of Analysis

Sample ID: A312260-01
Sampled By: Sarp Sekeroglu
Sample Description: Water Samples

Sample Date - Time: 09/25/13 - 17:00

Matrix: Water

Sample Type: Grab

Metals

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Magnesium - Dissolved (1)	EPA 200.7	1200	1.0	mg/L	10	A311497	10/01/13	10/04/13	
Manganese	EPA 200.7	1.5	0.010	mg/L	1	A311463	10/01/13	10/05/13	
Manganese - Dissolved (1)	EPA 200.7	1.7	0.10	mg/L	10	A311497	10/01/13	10/04/13	
Potassium - Dissolved (1)	EPA 200.7	380	20	mg/L	10	A311497	10/01/13	10/04/13	
Silica (SiO2) - Dissolved (1)	EPA 200.7	25	2.0	mg/L	10	A311497	10/01/13	10/04/13	
Sodium - Dissolved (1)	EPA 200.7	10000	100	mg/L	100	A311497	10/01/13	10/05/13	
Strontium - Dissolved (1)	EPA 200.8	7400	10	ug/L	10	A311497	10/01/13	10/08/13	
Zinc	EPA 200.7	ND	0.050	mg/L	1	A311463	10/01/13	10/05/13	

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>EDB and DBCP by GC-ECD</u>									
Dibromochloropropane (DBCP)	EPA 504.1	ND	0.010	ug/L	1	A311476	09/30/13	10/02/13	
Ethylene Dibromide (EDB)	EPA 504.1	ND	0.020	ug/L	1	A311476	09/30/13	10/02/13	
Surrogate: TCMX	EPA 504.1	146 %	Acceptable range: 70-130 %			Qualifiers - SR02			
<u>Organohalide Pesticides and PCBs by GC-ECD</u>									
Aldrin	EPA 505	ND	0.075	ug/L	1	A311476	09/30/13	10/02/13	
Chlordane	EPA 505	ND	0.10	ug/L	1	A311476	09/30/13	10/02/13	
Chlorothalonil	EPA 505	ND	5.0	ug/L	1	A311476	09/30/13	10/02/13	
Dieldrin	EPA 505	ND	0.020	ug/L	1	A311476	09/30/13	10/02/13	
Endrin	EPA 505	ND	0.10	ug/L	1	A311476	09/30/13	10/02/13	
Heptachlor	EPA 505	ND	0.010	ug/L	1	A311476	09/30/13	10/02/13	
Heptachlor Epoxide	EPA 505	ND	0.010	ug/L	1	A311476	09/30/13	10/02/13	
Hexachlorobenzene	EPA 505	ND	0.50	ug/L	1	A311476	09/30/13	10/02/13	
Hexachlorocyclopentadiene	EPA 505	ND	1.0	ug/L	1	A311476	09/30/13	10/02/13	
Lindane	EPA 505	ND	0.20	ug/L	1	A311476	09/30/13	10/02/13	
Methoxychlor	EPA 505	ND	10	ug/L	1	A311476	09/30/13	10/02/13	
PCB Aroclor Screen	EPA 505	ND	0.50	ug/L	1	A311476	09/30/13	10/02/13	
Toxaphene	EPA 505	ND	1.0	ug/L	1	A311476	09/30/13	10/02/13	
Trifluralin	EPA 505	ND	1.0	ug/L	1	A311476	09/30/13	10/02/13	
Surrogate: TCMX	EPA 505	146 %	Acceptable range: 70-130 %			Qualifiers - SR02			
<u>Chlorinated Acid Herbicides by GC-ECD</u>									
2,4,5-T	EPA 515.3	ND	1.0	ug/L	1	A311419	09/29/13	10/04/13	
2,4,5-TP (Silvex)	EPA 515.3	ND	1.0	ug/L	1	A311419	09/29/13	10/04/13	
2,4-D	EPA 515.3	ND	10	ug/L	1	A311419	09/29/13	10/04/13	
Bentazon	EPA 515.3	ND	2.0	ug/L	1	A311419	09/29/13	10/04/13	
Dalapon	EPA 515.3	ND	10	ug/L	1	A311419	09/29/13	10/04/13	
Dicamba	EPA 515.3	ND	1.5	ug/L	1	A311419	09/29/13	10/04/13	
Dinoseb	EPA 515.3	ND	2.0	ug/L	1	A311419	09/29/13	10/04/13	
Pentachlorophenol	EPA 515.3	ND	0.20	ug/L	1	A311419	09/29/13	10/04/13	

Certificate of Analysis

Sample ID: A312260-01
 Sampled By: Sarp Sekeroglu
 Sample Description: Water Samples

Sample Date - Time: 09/25/13 - 17:00
 Matrix: Water
 Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Chlorinated Acid Herbicides by GC-ECD									
Picloram	EPA 515.3	ND	1.0	ug/L	1	A311419	09/29/13	10/04/13	
Surrogate: DCPAA	EPA 515.3	109 %	Acceptable range: 70-130 %						
Volatile Organics by GC-MS									
1,1,1,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1,1-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1,2,2-Tetrachloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA 524.2	ND	10	ug/L	1	A311594	10/02/13	10/03/13	
1,1,2-Trichloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,1-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2,3-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2,4-Trichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2,4-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2-Dichloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,3,5-Trimethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,3-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,3-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
1,4-Dichlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
2,2-Dichloropropane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
2-Butanone	EPA 524.2	ND	5.0	ug/L	1	A311594	10/02/13	10/03/13	
2-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
2-Hexanone	EPA 524.2	ND	10	ug/L	1	A311594	10/02/13	10/03/13	
4-Chlorotoluene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
4-Methyl-2-pentanone	EPA 524.2	ND	5.0	ug/L	1	A311594	10/02/13	10/03/13	
Acetone	EPA 524.2	ND	10	ug/L	1	A311594	10/02/13	10/03/13	
Benzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Bromobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Bromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Bromomethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Carbon Tetrachloride	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Chlorobenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Chloroethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Chloromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
cis-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
cis-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	

Certificate of Analysis

Sample ID: A312260-01
 Sampled By: Sarp Sekeroglu
 Sample Description: Water Samples

Sample Date - Time: 09/25/13 - 17:00
 Matrix: Water
 Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Volatile Organics by GC-MS									
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Dibromomethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Dichlorodifluoromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Dichloromethane	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Di-isopropyl ether (DIPE)	EPA 524.2	ND	3.0	ug/L	1	A311594	10/02/13	10/03/13	
Ethyl tert-Butyl Ether (ETBE)	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Ethylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Hexachlorobutadiene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Isopropylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
m,p-Xylenes	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Methyl-t-butyl ether	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Naphthalene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
n-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
n-Propylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
o-Xylene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
p-Isopropyltoluene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
sec-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Styrene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
tert-Amyl Methyl Ether (TAME)	EPA 524.2	ND	3.0	ug/L	1	A311594	10/02/13	10/03/13	
tert-Butyl alcohol (TBA)	EPA 524.2	ND	2.0	ug/L	1	A311594	10/02/13	10/03/13	
tert-Butylbenzene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Tetrachloroethene (PCE)	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Toluene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
trans-1,2-Dichloroethene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
trans-1,3-Dichloropropene	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Trichloroethene (TCE)	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Trichlorofluoromethane	EPA 524.2	ND	5.0	ug/L	1	A311594	10/02/13	10/03/13	
Vinyl Chloride	EPA 524.2	ND	0.50	ug/L	1	A311594	10/02/13	10/03/13	
Surrogate: 1,2-Dichlorobenzene-d4	EPA 524.2	95 %							Acceptable range: 70-130 %
Surrogate: Bromofluorobenzene	EPA 524.2	100 %							Acceptable range: 70-130 %
Total 1,3-Dichloropropene, EPA 524.2		ND	0.50	ug/L					
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Total Xylenes, EPA 524.2		ND	0.50	ug/L					
Semi-Volatile Organics by GC-MS									
Alachlor	EPA 525.2	ND	1.0	ug/L	1	A311693	10/03/13	10/04/13	
Atrazine	EPA 525.2	ND	0.50	ug/L	1	A311693	10/03/13	10/04/13	
Benzo(a)pyrene	EPA 525.2	ND	0.10	ug/L	1	A311693	10/03/13	10/04/13	
Bis(2-ethylhexyl) adipate	EPA 525.2	ND	3.0	ug/L	1	A311693	10/03/13	10/04/13	
Bis(2-ethylhexyl) phthalate	EPA 525.2	ND	3.0	ug/L	1	A311693	10/03/13	10/04/13	
Bromacil	EPA 525.2	ND	10	ug/L	1	A311693	10/03/13	10/04/13	
Butachlor	EPA 525.2	ND	0.38	ug/L	1	A311693	10/03/13	10/04/13	

Certificate of Analysis

Sample ID: A312260-01
Sampled By: Sarp Sekeroglu
Sample Description: Water Samples

Sample Date - Time: 09/25/13 - 17:00
Matrix: Water
Sample Type: Grab

Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
<u>Semi-Volatile Organics by GC-MS</u>									
Diazinon	EPA 525.2	ND	0.25	ug/L	1	A311693	10/03/13	10/04/13	
Dimethoate	EPA 525.2	ND	10	ug/L	1	A311693	10/03/13	10/04/13	
Metolachlor	EPA 525.2	ND	0.50	ug/L	1	A311693	10/03/13	10/04/13	
Metribuzin	EPA 525.2	ND	0.50	ug/L	1	A311693	10/03/13	10/04/13	
Molinate	EPA 525.2	ND	2.0	ug/L	1	A311693	10/03/13	10/04/13	
Propachlor	EPA 525.2	ND	0.50	ug/L	1	A311693	10/03/13	10/04/13	
Simazine	EPA 525.2	ND	1.0	ug/L	1	A311693	10/03/13	10/04/13	
Thiobencarb	EPA 525.2	ND	1.0	ug/L	1	A311693	10/03/13	10/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	EPA 525.2	105 %	<i>Acceptable range: 70-130 %</i>						
<u>Carbamates by HPLC</u>									
3-Hydroxycarbofuran	EPA 531.1	ND	3.0	ug/L	1	A311765	10/06/13	10/11/13	
Aldicarb	EPA 531.1	ND	3.0	ug/L	1	A311765	10/06/13	10/11/13	
Aldicarb Sulfone	EPA 531.1	ND	2.0	ug/L	1	A311765	10/06/13	10/11/13	
Aldicarb Sulfoxide	EPA 531.1	ND	3.0	ug/L	1	A311765	10/06/13	10/11/13	
Carbaryl	EPA 531.1	ND	5.0	ug/L	1	A311765	10/06/13	10/11/13	
Carbofuran	EPA 531.1	ND	5.0	ug/L	1	A311765	10/06/13	10/11/13	
Methomyl	EPA 531.1	ND	2.0	ug/L	1	A311765	10/06/13	10/11/13	
Oxamyl	EPA 531.1	ND	20	ug/L	1	A311765	10/06/13	10/11/13	BS1.0
<u>Glyphosate by HPLC</u>									
Glyphosate	EPA 547	ND	25	ug/L	1	A311763	10/04/13	10/05/13	
Surrogate: AMPA	EPA 547	107 %	<i>Acceptable range: 70-130 %</i>						
<u>Endothall by GC-MS</u>									
Endothall	EPA 548.1	ND	45	ug/L	1	A311487	09/30/13	10/02/13	
<u>Diquat by HPLC</u>									
Diquat	EPA 549.2	ND	4.9	ug/L	1.2	A311596	10/02/13	10/03/13	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A311404

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: AJT

Blank (A311404-BLK1)

Chloride	ND	1.0	mg/L							09/27/13	
Nitrate as NO3	ND	1.0	mg/L							09/27/13	
Nitrite as N	ND	0.050	mg/L							09/27/13	
Sulfate as SO4	ND	2.0	mg/L							09/27/13	

Blank Spike (A311404-BS1)

Chloride	51	1.0	mg/L	50		102	90-110			09/27/13	
Nitrate as NO3	51	1.0	mg/L	50		102	90-110			09/27/13	
Nitrite as N	0.50	0.050	mg/L	0.50		100	90-110			09/27/13	
Sulfate as SO4	51	2.0	mg/L	50		102	90-110			09/27/13	

Blank Spike Dup (A311404-BSD1)

Chloride	51	1.0	mg/L	50		103	90-110	1	20	09/27/13	
Nitrate as NO3	51	1.0	mg/L	50		102	90-110	1	20	09/27/13	
Nitrite as N	0.50	0.050	mg/L	0.50		100	90-110	0	20	09/27/13	
Sulfate as SO4	51	2.0	mg/L	50		103	90-110	1	20	09/27/13	

Matrix Spike (A311404-MS1), Source: A3I2247-01

Chloride	140	2.0	mg/L	100	32	104	80-120			09/27/13	
Nitrate as NO3	110	2.0	mg/L	100	9.0	105	80-120			09/27/13	
Nitrite as N	0.36	0.10	mg/L	1.0	ND	36	80-120			09/27/13	MS02 Low
Sulfate as SO4	150	4.0	mg/L	100	41	107	80-120			09/27/13	

Matrix Spike (A311404-MS2), Source: A3I2222-01

Chloride	150	2.0	mg/L	100	51	102	80-120			09/27/13	
Nitrate as NO3	100	2.0	mg/L	100	ND	102	80-120			09/27/13	
Nitrite as N	1.0	0.10	mg/L	1.0	ND	104	80-120			09/27/13	
Sulfate as SO4	160	4.0	mg/L	100	59	102	80-120			09/27/13	

Matrix Spike Dup (A311404-MSD1), Source: A3I2247-01

Chloride	130	2.0	mg/L	100	32	102	80-120	1	20	09/27/13	
Nitrate as NO3	110	2.0	mg/L	100	9.0	100	80-120	4	20	09/27/13	
Nitrite as N	0.33	0.10	mg/L	1.0	ND	33	80-120	7	20	09/27/13	MS02 Low
Sulfate as SO4	150	4.0	mg/L	100	41	107	80-120	1	20	09/27/13	

Matrix Spike Dup (A311404-MSD2), Source: A3I2222-01

Chloride	150	2.0	mg/L	100	51	102	80-120	0	20	09/27/13	
Nitrate as NO3	100	2.0	mg/L	100	ND	102	80-120	1	20	09/27/13	
Nitrite as N	1.0	0.10	mg/L	1.0	ND	105	80-120	1	20	09/27/13	
Sulfate as SO4	160	4.0	mg/L	100	59	103	80-120	0	20	09/27/13	

EPA 300.0 - Quality Control

Batch: A311580

Prepared: 10/2/2013

Prep Method: Method Specific Preparation

Analyst: AJT

Blank (A311580-BLK1)

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 300.0 - Quality Control

Batch: A311580

Prepared: 10/2/2013

Prep Method: Method Specific Preparation

Analyst: AJT

Blank (A311580-BLK1)

Fluoride ND 0.10 mg/L 10/02/13

Blank Spike (A311580-BS1)

Fluoride 0.48 0.10 mg/L 0.50 96 90-110 10/02/13

Blank Spike Dup (A311580-BSD1)

Fluoride 0.49 0.10 mg/L 0.50 98 90-110 2 10 10/02/13

Matrix Spike (A311580-MS1), Source: A3I2049-19

Fluoride 1.4 0.20 mg/L 1.0 0.40 96 80-120 10/02/13

Matrix Spike (A311580-MS2), Source: A3I2049-20

Fluoride 1.3 0.20 mg/L 1.0 0.37 97 80-120 10/02/13

Matrix Spike Dup (A311580-MSD1), Source: A3I2049-19

Fluoride 1.4 0.20 mg/L 1.0 0.40 97 80-120 1 10 10/02/13

Matrix Spike Dup (A311580-MSD2), Source: A3I2049-20

Fluoride 1.3 0.20 mg/L 1.0 0.37 97 80-120 1 10 10/02/13

EPA 300.1 - Quality Control

Batch: A311561

Prepared: 10/2/2013

Prep Method: Method Specific Preparation

Analyst: LJL

Blank (A311561-BLK1)

Bromide ND 0.0050 mg/L 10/02/13

Surrogate: Dichloroacetate 0.527 0.50 105 90-115 10/02/13

Blank Spike (A311561-BS1)

Bromide 0.19 0.0050 mg/L 0.20 97 85-115 10/02/13

Surrogate: Dichloroacetate 0.549 0.50 110 90-115 10/02/13

Blank Spike Dup (A311561-BSD1)

Bromide 0.19 0.0050 mg/L 0.20 93 85-115 4 10 10/02/13

Surrogate: Dichloroacetate 0.524 0.50 105 90-115 10/02/13

Matrix Spike (A311561-MS1), Source: A3J0132-03

Bromide 1.1 0.050 mg/L 1.0 0.18 95 75-125 10/02/13

Surrogate: Dichloroacetate 5.34 5.0 107 90-115 10/02/13

Matrix Spike Dup (A311561-MSD1), Source: A3J0132-03

Bromide 1.1 0.050 mg/L 1.0 0.18 97 75-125 1 10 10/02/13

Surrogate: Dichloroacetate 5.62 5.0 112 90-115 10/02/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 351.2 - Quality Control

Batch: A311800

Prepared: 10/7/2013

Prep Method: Digestion

Analyst: LJL

Blank (A311800-BLK1)

Total Kjeldahl Nitrogen - Dissolved (1) ND 1.0 mg/L 10/09/13

Blank Spike (A311800-BS1)

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 104 90-110 10/09/13

Blank Spike Dup (A311800-BSD1)

Total Kjeldahl Nitrogen - Dissolved (1) 10 1.0 mg/L 10 104 90-110 1 10 10/09/13

Matrix Spike (A311800-MS1), Source: A3I2260-01

Total Kjeldahl Nitrogen - Dissolved (1) 11 1.0 mg/L 10 ND 103 90-110 10/09/13

Matrix Spike Dup (A311800-MSD1), Source: A3I2260-01

Total Kjeldahl Nitrogen - Dissolved (1) 11 1.0 mg/L 10 ND 103 90-110 0 10 10/09/13

EPA 365.4 - Quality Control

Batch: A311800

Prepared: 10/7/2013

Prep Method: Digestion

Analyst: LJL

Blank (A311800-BLK1)

Phosphorus - Dissolved (1) ND 0.10 mg/L 10/09/13

Blank Spike (A311800-BS1)

Phosphorus - Dissolved (1) 10 0.10 mg/L 10 102 90-110 10/09/13

Blank Spike Dup (A311800-BSD1)

Phosphorus - Dissolved (1) 10 0.10 mg/L 10 102 90-110 0 10 10/09/13

Matrix Spike (A311800-MS1), Source: A3I2260-01

Phosphorus - Dissolved (1) 9.9 0.10 mg/L 10 ND 98 90-110 10/09/13

Matrix Spike Dup (A311800-MSD1), Source: A3I2260-01

Phosphorus - Dissolved (1) 9.4 0.10 mg/L 10 ND 93 90-110 5 10 10/09/13

SM 2120 B - Quality Control

Batch: A311368

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311368-BLK1)

Color, Apparent ND 1.0 CU 09/27/13

Duplicate (A311368-DUP1), Source: A3I2216-01

Color, Apparent 5.0 1.0 CU 5.0 0 20 09/27/13

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2130 B - Quality Control

Batch: A311368

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311368-BLK1)

Turbidity	ND	0.10	NTU							09/27/13	
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Duplicate (A311368-DUP1), Source: A3I2216-01

Turbidity	2.6	0.10	NTU		2.7			4	20	09/27/13	
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SM 2150 B - Quality Control

Batch: A311368

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311368-BLK1)

Threshold Odor	ND	1.0	T.O.N.							09/27/13	
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Duplicate (A311368-DUP1), Source: A3I2216-01

Threshold Odor	ND	1.0	T.O.N.		ND				20	09/27/13	
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SM 2320 B - Quality Control

Batch: A311377

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A311377-BLK1)

Alkalinity as CaCO3	ND	3.0	mg/L							09/27/13	
Bicarbonate as CaCO3	ND	3.0	mg/L							09/27/13	
Carbonate as CaCO3	ND	3.0	mg/L							09/27/13	
Hydroxide as CaCO3	ND	3.0	mg/L							09/27/13	

Blank Spike (A311377-BS1)

Alkalinity as CaCO3	100	3.0	mg/L	100		101	80-120			09/27/13	
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Blank Spike Dup (A311377-BSD1)

Alkalinity as CaCO3	100	3.0	mg/L	100		100	80-120	1	20	09/27/13	
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Duplicate (A311377-DUP1), Source: A3I2176-02

Alkalinity as CaCO3	74	3.0	mg/L		74			0	10	09/27/13	
Bicarbonate as CaCO3	73	3.0	mg/L		73			0	10	09/27/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	09/27/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	09/27/13	

Duplicate (A311377-DUP2), Source: A3I2260-01

Alkalinity as CaCO3	140	3.0	mg/L		150			0	10	09/27/13	
Bicarbonate as CaCO3	140	3.0	mg/L		150			0	10	09/27/13	
Carbonate as CaCO3	ND	3.0	mg/L		ND				10	09/27/13	
Hydroxide as CaCO3	ND	3.0	mg/L		ND				10	09/27/13	

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 2510 B - Quality Control

Batch: A311377

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Blank (A311377-BLK1)

Conductivity @ 25C	ND	1.0	umhos/cm							09/27/13	
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Duplicate (A311377-DUP1), Source: A3I2176-02

Conductivity @ 25C	580	1.0	umhos/cm		580			0	20	09/27/13	
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Duplicate (A311377-DUP2), Source: A3I2260-01

Conductivity @ 25C	43000	1.0	umhos/cm		43000			0	20	09/27/13	
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SM 2540C - Quality Control

Batch: A311575

Prepared: 10/2/2013

Prep Method: Method Specific Preparation

Analyst: DEH

Blank (A311575-BLK1)

Total Dissolved Solids	ND	5.0	mg/L							10/07/13	
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Blank Spike (A311575-BS1)

Total Dissolved Solids	1000	5.0	mg/L	1000		100	70-130			10/07/13	
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Duplicate (A311575-DUP1), Source: A3I2260-01

Total Dissolved Solids	34000	5.0	mg/L		34000			0	20	10/07/13	
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SM 4500-H+ B - Quality Control

Batch: A311377

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CEG

Duplicate (A311377-DUP1), Source: A3I2176-02

pH (1)	8.3		pH Units		8.3			0	20	09/27/13	
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Duplicate (A311377-DUP2), Source: A3I2260-01

pH (1)	7.7		pH Units		7.7			0	20	09/27/13	
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SM 4500-NH3 G - Quality Control

Batch: A311778

Prepared: 10/7/2013

Prep Method: Ammonia Distillation

Analyst: LJL

Blank (A311778-BLK1)

Ammonia as N	ND	0.10	mg/L							10/08/13	
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Blank (A311778-BLK2)

Ammonia as N	ND	0.10	mg/L							10/08/13	
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Blank Spike (A311778-BS1)

Ammonia as N	9.8	0.10	mg/L	10		98	80-120			10/08/13	
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General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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SM 4500-P E - Quality Control

Batch: A311398

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: LJL

Blank Spike (A311398-BS1)

Orthophosphate as P 0.25 0.010 mg/L 0.25 101 90-110 09/27/13

Blank Spike Dup (A311398-BSD1)

Orthophosphate as P 0.25 0.010 mg/L 0.25 101 90-110 0 20 09/27/13

Matrix Spike (A311398-MS1), Source: A3I2214-01

Orthophosphate as P 1.4 0.050 mg/L 1.2 0.14 98 80-120 09/27/13

Matrix Spike Dup (A311398-MSD1), Source: A3I2214-01

Orthophosphate as P 1.4 0.050 mg/L 1.2 0.14 99 80-120 1 20 09/27/13

SM 5540 C - Quality Control

Batch: A311369

Prepared: 9/27/2013

Prep Method: Method Specific Preparation

Analyst: CCH

Blank (A311369-BLK1)

MBAS, Calculated as LAS, mol wt 340 ND 0.050 mg/L 09/27/13

Blank Spike (A311369-BS1)

MBAS, Calculated as LAS, mol wt 340 0.94 0.050 mg/L 1.0 94 80-120 09/27/13

Blank Spike Dup (A311369-BSD1)

MBAS, Calculated as LAS, mol wt 340 0.96 0.050 mg/L 1.0 96 80-120 1 20 09/27/13

Matrix Spike (A311369-MS1), Source: A3I2214-01

MBAS, Calculated as LAS, mol wt 340 1.0 0.050 mg/L 1.0 ND 102 80-120 09/27/13

Matrix Spike Dup (A311369-MSD1), Source: A3I2214-01

MBAS, Calculated as LAS, mol wt 340 1.1 0.050 mg/L 1.0 ND 104 80-120 2 20 09/27/13

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A311463

Prepared: 10/1/2013

Prep Method: EPA 200.2

Analyst: NRE

Blank (A311463-BLK2)

Aluminum	ND	0.050	mg/L							10/04/13	
Calcium	ND	0.10	mg/L							10/04/13	
Iron	ND	0.030	mg/L							10/04/13	
Magnesium	ND	0.10	mg/L							10/04/13	
Manganese	ND	0.010	mg/L							10/04/13	
Zinc	ND	0.050	mg/L							10/04/13	

Blank Spike (A311463-BS2)

Aluminum	0.18	0.050	mg/L	0.20		91	85-115			10/04/13	
Calcium	9.7	0.10	mg/L	10		97	85-115			10/04/13	
Iron	1.9	0.030	mg/L	2.0		97	85-115			10/04/13	
Magnesium	9.3	0.10	mg/L	10		93	85-115			10/04/13	
Manganese	0.19	0.010	mg/L	0.20		95	85-115			10/04/13	
Zinc	0.20	0.050	mg/L	0.20		100	85-115			10/04/13	

Blank Spike Dup (A311463-BSD2)

Aluminum	0.18	0.050	mg/L	0.20		91	85-115	0	20	10/05/13	
Calcium	9.8	0.10	mg/L	10		98	85-115	0	20	10/05/13	
Iron	2.0	0.030	mg/L	2.0		98	85-115	1	20	10/05/13	
Magnesium	9.3	0.10	mg/L	10		93	85-115	1	20	10/05/13	
Manganese	0.19	0.010	mg/L	0.20		96	85-115	1	20	10/05/13	
Zinc	0.20	0.050	mg/L	0.20		102	85-115	2	20	10/05/13	

Matrix Spike (A311463-MS3), Source: A312246-01

Aluminum	0.43	0.050	mg/L	0.20	0.13	151	70-130			10/05/13	MS1.0 High
Calcium	21	0.10	mg/L	10	11	98	70-130			10/05/13	
Iron	2.2	0.030	mg/L	2.0	0.19	99	70-130			10/05/13	
Magnesium	15	0.10	mg/L	10	5.2	94	70-130			10/05/13	
Manganese	0.21	0.010	mg/L	0.20	0.020	95	70-130			10/05/13	
Zinc	0.20	0.050	mg/L	0.20	ND	100	70-130			10/05/13	

Matrix Spike (A311463-MS4), Source: A312246-13

Aluminum	0.83	0.050	mg/L	0.20	0.39	222	70-130			10/05/13	MS1.0 High
Calcium	35	0.10	mg/L	10	25	99	70-130			10/05/13	
Iron	3.2	0.030	mg/L	2.0	1.1	102	70-130			10/05/13	
Magnesium	25	0.10	mg/L	10	16	93	70-130			10/05/13	
Manganese	0.38	0.010	mg/L	0.20	0.19	93	70-130			10/05/13	
Zinc	0.20	0.050	mg/L	0.20	ND	99	70-130			10/05/13	

Matrix Spike Dup (A311463-MSD3), Source: A312246-01

Aluminum	0.41	0.050	mg/L	0.20	0.13	140	70-130	5	20	10/05/13	MS1.0 High
Calcium	20	0.10	mg/L	10	11	93	70-130	2	20	10/05/13	
Iron	2.1	0.030	mg/L	2.0	0.19	98	70-130	1	20	10/05/13	
Magnesium	14	0.10	mg/L	10	5.2	92	70-130	2	20	10/05/13	
Manganese	0.21	0.010	mg/L	0.20	0.020	94	70-130	1	20	10/05/13	
Zinc	0.20	0.050	mg/L	0.20	ND	100	70-130	1	20	10/05/13	

Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A311463

Prepared: 10/1/2013

Prep Method: EPA 200.2

Analyst: NRE

Matrix Spike Dup (A311463-MSD4), Source: A3I2246-13

Aluminum	0.81	0.050	mg/L	0.20	0.39	210	70-130	3	20	10/05/13	MS1.0 High
Calcium	34	0.10	mg/L	10	25	91	70-130	2	20	10/05/13	
Iron	3.2	0.030	mg/L	2.0	1.1	102	70-130	0	20	10/05/13	
Magnesium	25	0.10	mg/L	10	16	89	70-130	2	20	10/05/13	
Manganese	0.37	0.010	mg/L	0.20	0.19	90	70-130	2	20	10/05/13	
Zinc	0.20	0.050	mg/L	0.20	ND	99	70-130	0	20	10/05/13	

EPA 200.7 - Quality Control

Batch: A311497

Prepared: 10/1/2013

Prep Method: Filtration - Metals

Analyst: NRE

Blank (A311497-BLK2)

Barium - Dissolved (1)	ND	0.050	mg/L							10/04/13	
Boron - Dissolved (1)	ND	0.10	mg/L							10/04/13	
Calcium - Dissolved (1)	ND	0.10	mg/L							10/04/13	
Iron - Dissolved (1)	ND	0.030	mg/L							10/04/13	
Magnesium - Dissolved (1)	ND	0.10	mg/L							10/04/13	
Manganese - Dissolved (1)	ND	0.010	mg/L							10/04/13	
Potassium - Dissolved (1)	ND	2.0	mg/L							10/04/13	
Silica (SiO2) - Dissolved (1)	ND	0.20	mg/L							10/04/13	
Sodium - Dissolved (1)	ND	1.0	mg/L							10/04/13	

Blank Spike (A311497-BS2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		99	85-115			10/04/13	
Boron - Dissolved (1)	0.57	0.10	mg/L	0.60		95	85-115			10/04/13	
Calcium - Dissolved (1)	9.8	0.10	mg/L	10		98	85-115			10/04/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		99	85-115			10/04/13	
Magnesium - Dissolved (1)	9.6	0.10	mg/L	10		96	85-115			10/04/13	
Manganese - Dissolved (1)	0.19	0.010	mg/L	0.20		97	85-115			10/04/13	
Potassium - Dissolved (1)	9.7	2.0	mg/L	10		97	85-115			10/04/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		102	85-115			10/04/13	
Sodium - Dissolved (1)	9.8	1.0	mg/L	10		98	85-115			10/04/13	

Blank Spike Dup (A311497-BSD2)

Barium - Dissolved (1)	0.20	0.050	mg/L	0.20		100	85-115	2	20	10/04/13	
Boron - Dissolved (1)	0.58	0.10	mg/L	0.60		97	85-115	2	20	10/04/13	
Calcium - Dissolved (1)	10	0.10	mg/L	10		100	85-115	2	20	10/04/13	
Iron - Dissolved (1)	2.0	0.030	mg/L	2.0		100	85-115	1	20	10/04/13	
Magnesium - Dissolved (1)	9.7	0.10	mg/L	10		97	85-115	1	20	10/04/13	
Manganese - Dissolved (1)	0.20	0.010	mg/L	0.20		98	85-115	1	20	10/04/13	
Potassium - Dissolved (1)	9.9	2.0	mg/L	10		99	85-115	2	20	10/04/13	
Silica (SiO2) - Dissolved (1)	2.2	0.20	mg/L	2.1		102	85-115	1	20	10/04/13	
Sodium - Dissolved (1)	10	1.0	mg/L	10		100	85-115	2	20	10/04/13	

Matrix Spike (A311497-MS2), Source: A3I2260-01

Barium - Dissolved (1)	0.25	0.50	mg/L	0.20	ND	123	70-130			10/04/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.7 - Quality Control

Batch: A311497

Prepared: 10/1/2013

Prep Method: Filtration - Metals

Analyst: NRE

Matrix Spike (A311497-MS2), Source: A3I2260-01

Boron - Dissolved (1)	4.9	1.0	mg/L	0.60	4.3	100	70-130			10/04/13	
Calcium - Dissolved (1)	410	1.0	mg/L	10	400	184	70-130			10/04/13	MS1.0 High
Iron - Dissolved (1)	2.0	0.30	mg/L	2.0	ND	99	70-130			10/04/13	
Magnesium - Dissolved (1)	1200	1.0	mg/L	10	1200	340	70-130			10/04/13	MS1.0 High
Manganese - Dissolved (1)	1.9	0.10	mg/L	0.20	1.7	114	70-130			10/04/13	
Potassium - Dissolved (1)	390	20	mg/L	10	380	171	70-130			10/04/13	MS1.0 High
Silica (SiO2) - Dissolved (1)	27	2.0	mg/L	2.1	25	128	70-130			10/04/13	

Matrix Spike (A311497-MS3), Source: A3I2260-01

Sodium - Dissolved (1)	10000	100	mg/L	10	10000	NR	70-130			10/05/13	MS1.0 High
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Matrix Spike Dup (A311497-MSD2), Source: A3I2260-01

Barium - Dissolved (1)	0.24	0.50	mg/L	0.20	ND	122	70-130	1	20	10/04/13	
Boron - Dissolved (1)	4.9	1.0	mg/L	0.60	4.3	108	70-130	1	20	10/04/13	
Calcium - Dissolved (1)	410	1.0	mg/L	10	400	186	70-130	0	20	10/04/13	MS1.0 High
Iron - Dissolved (1)	2.0	0.30	mg/L	2.0	ND	101	70-130	2	20	10/04/13	
Magnesium - Dissolved (1)	1200	1.0	mg/L	10	1200	366	70-130	0	20	10/04/13	MS1.0 High
Manganese - Dissolved (1)	1.9	0.10	mg/L	0.20	1.7	119	70-130	1	20	10/04/13	
Potassium - Dissolved (1)	400	20	mg/L	10	380	185	70-130	0	20	10/04/13	MS1.0 High
Silica (SiO2) - Dissolved (1)	28	2.0	mg/L	2.1	25	141	70-130	1	20	10/04/13	MS1.0 High

Matrix Spike Dup (A311497-MSD3), Source: A3I2260-01

Sodium - Dissolved (1)	11000	100	mg/L	10	10000	NR	70-130	1	20	10/05/13	MS1.0 High
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EPA 200.8 - Quality Control

Batch: A311463

Prepared: 10/1/2013

Prep Method: EPA 200.2

Analyst: MAS

Blank (A311463-BLK1)

Arsenic	ND	2.0	ug/L							10/08/13	
Copper	ND	5.0	ug/L							10/08/13	

Blank Spike (A311463-BS1)

Arsenic	200	2.0	ug/L	200		98	85-115			10/08/13	
Copper	200	5.0	ug/L	200		101	85-115			10/08/13	

Blank Spike Dup (A311463-BSD1)

Arsenic	200	2.0	ug/L	200		98	85-115	1	20	10/08/13	
Copper	200	5.0	ug/L	200		101	85-115	0	20	10/08/13	

Matrix Spike (A311463-MS1), Source: A3I2246-01

Arsenic	190	2.0	ug/L	200	ND	97	70-130			10/08/13	
Copper	200	5.0	ug/L	200	ND	98	70-130			10/08/13	

Matrix Spike (A311463-MS2), Source: A3I2246-13

Arsenic	190	2.0	ug/L	200	3.8	95	70-130			10/08/13	
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Metals Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 200.8 - Quality Control

Batch: A311463

Prepared: 10/1/2013

Prep Method: EPA 200.2

Analyst: MAS

Matrix Spike (A311463-MS2), Source: A3I2246-13

Copper	200	5.0	ug/L	200	ND	96	70-130			10/08/13	
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Matrix Spike Dup (A311463-MSD1), Source: A3I2246-01

Arsenic	190	2.0	ug/L	200	ND	96	70-130	2	20	10/08/13	
Copper	200	5.0	ug/L	200	ND	98	70-130	1	20	10/08/13	

Matrix Spike Dup (A311463-MSD2), Source: A3I2246-13

Arsenic	200	2.0	ug/L	200	3.8	96	70-130	1	20	10/08/13	
Copper	200	5.0	ug/L	200	ND	98	70-130	2	20	10/08/13	

EPA 200.8 - Quality Control

Batch: A311497

Prepared: 10/1/2013

Prep Method: Filtration - Metals

Analyst: MAS

Blank (A311497-BLK1)

Strontium - Dissolved (1)	ND	1.0	ug/L							10/08/13	
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Blank Spike (A311497-BS1)

Strontium - Dissolved (1)	190	1.0	ug/L	200		93	85-115			10/08/13	
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Blank Spike Dup (A311497-BSD1)

Strontium - Dissolved (1)	190	1.0	ug/L	200		96	85-115	3	20	10/08/13	
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Matrix Spike (A311497-MS1), Source: A3I2260-01

Strontium - Dissolved (1)	8700	10	ug/L	200	7400	673	70-130			10/08/13	MS1.0 High
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Matrix Spike Dup (A311497-MSD1), Source: A3I2260-01

Strontium - Dissolved (1)	8200	10	ug/L	200	7400	401	70-130	6	20	10/08/13	MS1.0 High
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 504.1 - Quality Control

Batch: A311476

Prepared: 9/30/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A311476-BLK1)

Dibromochloropropane (DBCP)	ND	0.010	ug/L							10/02/13	
Ethylene Dibromide (EDB)	ND	0.020	ug/L							10/02/13	
Surrogate: TCMX	1.6			1.5		107	70-130			10/02/13	

Blank Spike (A311476-BS1)

Dibromochloropropane (DBCP)	0.21	0.010	ug/L	0.20		104	70-130			10/02/13	
Ethylene Dibromide (EDB)	0.22	0.020	ug/L	0.20		108	70-130			10/02/13	
Surrogate: TCMX	1.5			1.5		102	70-130			10/02/13	

Blank Spike Dup (A311476-BSD1)

Dibromochloropropane (DBCP)	0.20	0.010	ug/L	0.20		101	70-130	2	20	10/02/13	
Ethylene Dibromide (EDB)	0.21	0.020	ug/L	0.20		104	70-130	4	20	10/02/13	
Surrogate: TCMX	1.4			1.5		91	70-130			10/02/13	

Matrix Spike (A311476-MS1), Source: A3I2242-01

Dibromochloropropane (DBCP)	0.19	0.010	ug/L	0.20	ND	93	65-135			10/02/13	
Ethylene Dibromide (EDB)	0.19	0.020	ug/L	0.20	ND	96	65-135			10/02/13	
Surrogate: TCMX	1.5			1.5		97	70-130			10/02/13	

Matrix Spike Dup (A311476-MSD1), Source: A3I2242-01

Dibromochloropropane (DBCP)	0.19	0.010	ug/L	0.20	ND	95	65-135	0	20	10/02/13	
Ethylene Dibromide (EDB)	0.18	0.020	ug/L	0.20	ND	94	65-135	4	20	10/02/13	
Surrogate: TCMX	1.4			1.5		92	70-130			10/02/13	

EPA 505 - Quality Control

Batch: A311476

Prepared: 9/30/2013

Prep Method: EPA 505

Analyst: GAK

Blank (A311476-BLK1)

Aldrin	ND	0.075	ug/L							10/02/13	
Chlordane	ND	0.10	ug/L							10/02/13	
Chlorothalonil	ND	5.0	ug/L							10/02/13	
Dieldrin	ND	0.020	ug/L							10/02/13	
Endrin	ND	0.10	ug/L							10/02/13	
Heptachlor	ND	0.010	ug/L							10/02/13	
Heptachlor Epoxide	ND	0.010	ug/L							10/02/13	
Hexachlorobenzene	ND	0.50	ug/L							10/02/13	
Hexachlorocyclopentadiene	ND	1.0	ug/L							10/02/13	
Lindane	ND	0.20	ug/L							10/02/13	
Methoxychlor	ND	10	ug/L							10/02/13	
PCB Aroclor Screen	ND	0.50	ug/L							10/02/13	
Toxaphene	ND	1.0	ug/L							10/02/13	
Trifluralin	ND	1.0	ug/L							10/02/13	
Surrogate: TCMX	1.6			1.5		107	70-130			10/02/13	

Blank Spike (A311476-BS1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A311476

Prepared: 9/30/2013

Prep Method: EPA 505

Analyst: GAK

Blank Spike (A311476-BS1)

Aldrin	1.2	0.075	ug/L	1.0		119	70-130			10/02/13	
Chlorothalonil	11	5.0	ug/L	10		114	70-130			10/02/13	
Dieldrin	0.45	0.020	ug/L	0.40		112	70-130			10/02/13	
Endrin	0.21	0.10	ug/L	0.20		106	70-130			10/02/13	
Heptachlor	0.22	0.010	ug/L	0.20		112	70-130			10/02/13	
Heptachlor Epoxide	0.22	0.010	ug/L	0.20		110	70-130			10/02/13	
Hexachlorobenzene	2.4	0.50	ug/L	2.0		118	70-130			10/02/13	
Hexachlorocyclopentadiene	2.6	1.0	ug/L	2.0		128	70-130			10/02/13	
Lindane	0.46	0.20	ug/L	0.40		116	70-130			10/02/13	
Methoxychlor	2.1	10	ug/L	2.0		104	70-130			10/02/13	
Trifluralin	2.5	1.0	ug/L	2.0		125	70-130			10/02/13	
Surrogate: TCMX	1.5			1.5		102	70-130			10/02/13	

Blank Spike Dup (A311476-BSD1)

Aldrin	1.1	0.075	ug/L	1.0		111	70-130	7	20	10/02/13	
Chlorothalonil	11	5.0	ug/L	10		111	70-130	3	20	10/02/13	
Dieldrin	0.43	0.020	ug/L	0.40		107	70-130	4	20	10/02/13	
Endrin	0.20	0.10	ug/L	0.20		102	70-130	4	20	10/02/13	
Heptachlor	0.21	0.010	ug/L	0.20		107	70-130	5	20	10/02/13	
Heptachlor Epoxide	0.22	0.010	ug/L	0.20		108	70-130	2	20	10/02/13	
Hexachlorobenzene	2.3	0.50	ug/L	2.0		113	70-130	5	20	10/02/13	
Hexachlorocyclopentadiene	2.4	1.0	ug/L	2.0		122	70-130	5	20	10/02/13	
Lindane	0.44	0.20	ug/L	0.40		111	70-130	4	20	10/02/13	
Methoxychlor	2.1	10	ug/L	2.0		103	70-130	1	20	10/02/13	
Trifluralin	2.4	1.0	ug/L	2.0		119	70-130	5	20	10/02/13	
Surrogate: TCMX	1.4			1.5		91	70-130			10/02/13	

Matrix Spike (A311476-MS1), Source: A3I2242-01

Aldrin	0.99	0.075	ug/L	1.0	ND	99	65-135			10/02/13	
Chlorothalonil	10	5.0	ug/L	10	ND	104	65-135			10/02/13	
Dieldrin	0.40	0.020	ug/L	0.40	ND	101	65-135			10/02/13	
Endrin	0.19	0.10	ug/L	0.20	ND	96	65-135			10/02/13	
Heptachlor	0.20	0.010	ug/L	0.20	ND	100	65-135			10/02/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20	ND	100	65-135			10/02/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0	ND	106	65-135			10/02/13	
Hexachlorocyclopentadiene	2.1	1.0	ug/L	2.0	ND	106	65-135			10/02/13	
Lindane	0.42	0.20	ug/L	0.40	ND	105	65-135			10/02/13	
Methoxychlor	1.9	10	ug/L	2.0	ND	97	65-135			10/02/13	
Trifluralin	2.2	1.0	ug/L	2.0	ND	110	65-135			10/02/13	
Surrogate: TCMX	1.5			1.5		97	70-130			10/02/13	

Matrix Spike Dup (A311476-MSD1), Source: A3I2242-01

Aldrin	0.94	0.075	ug/L	0.99	ND	95	65-135	6	20	10/02/13	
Chlorothalonil	10	5.0	ug/L	9.9	ND	105	65-135	1	20	10/02/13	
Dieldrin	0.41	0.020	ug/L	0.40	ND	103	65-135	1	20	10/02/13	
Endrin	0.19	0.10	ug/L	0.20	ND	98	65-135	1	20	10/02/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 505 - Quality Control

Batch: A311476

Prepared: 9/30/2013

Prep Method: EPA 505

Analyst: GAK

Matrix Spike Dup (A311476-MSD1), Source: A312242-01

Heptachlor	0.19	0.010	ug/L	0.20	ND	98	65-135	4	20	10/02/13	
Heptachlor Epoxide	0.20	0.010	ug/L	0.20	ND	102	65-135	1	20	10/02/13	
Hexachlorobenzene	2.1	0.50	ug/L	2.0	ND	105	65-135	2	20	10/02/13	
Hexachlorocyclopentadiene	1.9	1.0	ug/L	2.0	ND	97	65-135	10	20	10/02/13	
Lindane	0.42	0.20	ug/L	0.40	ND	106	65-135	0	20	10/02/13	
Methoxychlor	2.0	10	ug/L	2.0	ND	101	65-135	3	20	10/02/13	
Trifluralin	2.2	1.0	ug/L	2.0	ND	111	65-135	0	20	10/02/13	
Surrogate: TCMX	1.4			1.5		92	70-130			10/02/13	

EPA 515.3 - Quality Control

Batch: A311419

Prepared: 9/29/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank (A311419-BLK1)

2,4,5-T	ND	1.0	ug/L							10/04/13	
2,4,5-TP (Silvex)	ND	1.0	ug/L							10/04/13	
2,4-D	ND	10	ug/L							10/04/13	
Bentazon	ND	2.0	ug/L							10/04/13	
Dalapon	ND	10	ug/L							10/04/13	
Dicamba	ND	1.5	ug/L							10/04/13	
Dinoseb	ND	2.0	ug/L							10/04/13	
Pentachlorophenol	ND	0.20	ug/L							10/04/13	
Picloram	ND	1.0	ug/L							10/04/13	
Surrogate: DCPAA	71			58		123	70-130			10/04/13	

Blank Spike (A311419-BS1)

2,4,5-T	4.1	1.0	ug/L	4.0		102	70-130			10/04/13	
2,4,5-TP (Silvex)	4.2	1.0	ug/L	4.0		106	70-130			10/04/13	
2,4-D	47	10	ug/L	40		118	70-130			10/04/13	
Bentazon	9.8	2.0	ug/L	8.0		122	70-130			10/04/13	
Dalapon	37	10	ug/L	40		92	70-130			10/04/13	
Dicamba	5.9	1.5	ug/L	6.0		98	70-130			10/04/13	
Dinoseb	8.1	2.0	ug/L	8.0		101	70-130			10/04/13	
Pentachlorophenol	0.68	0.20	ug/L	0.80		85	70-130			10/04/13	
Picloram	3.3	1.0	ug/L	4.0		82	70-130			10/04/13	
Surrogate: DCPAA	67			58		115	70-130			10/04/13	

Blank Spike Dup (A311419-BSD1)

2,4,5-T	3.9	1.0	ug/L	4.0		98	70-130	3	20	10/04/13	
2,4,5-TP (Silvex)	4.2	1.0	ug/L	4.0		104	70-130	2	20	10/04/13	
2,4-D	46	10	ug/L	40		114	70-130	3	20	10/04/13	
Bentazon	8.1	2.0	ug/L	8.0		101	70-130	19	20	10/04/13	
Dalapon	37	10	ug/L	40		91	70-130	1	20	10/04/13	
Dicamba	5.9	1.5	ug/L	6.0		98	70-130	0	20	10/04/13	
Dinoseb	8.1	2.0	ug/L	8.0		101	70-130	0	20	10/04/13	
Pentachlorophenol	0.72	0.20	ug/L	0.80		90	70-130	6	20	10/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 515.3 - Quality Control

Batch: A311419

Prepared: 9/29/2013

Prep Method: EPA 515.3

Analyst: GAK

Blank Spike Dup (A311419-BSD1)

Picloram	3.9	1.0	ug/L	4.0		97	70-130	17	20	10/04/13	
Surrogate: DCPAA	67			58		116	70-130			10/04/13	

Matrix Spike (A311419-MS1), Source: A312242-01

2,4,5-T	4.0	1.0	ug/L	4.0	ND	101	70-130			10/04/13	
2,4,5-TP (Silvex)	4.7	1.0	ug/L	4.0	ND	116	70-130			10/04/13	
2,4-D	47	10	ug/L	40	ND	119	70-130			10/04/13	
Bentazon	8.9	2.0	ug/L	8.0	ND	111	70-130			10/04/13	
Dalapon	37	10	ug/L	40	ND	92	70-130			10/04/13	
Dicamba	6.3	1.5	ug/L	6.0	ND	105	70-130			10/04/13	
Dinoseb	8.1	2.0	ug/L	8.0	ND	102	70-130			10/04/13	
Pentachlorophenol	0.68	0.20	ug/L	0.80	ND	85	70-130			10/04/13	
Picloram	3.3	1.0	ug/L	4.0	ND	82	70-130			10/04/13	
Surrogate: DCPAA	69			58		119	70-130			10/04/13	

Matrix Spike Dup (A311419-MSD1), Source: A312242-01

2,4,5-T	4.0	1.0	ug/L	4.0	ND	100	70-130	1	20	10/04/13	
2,4,5-TP (Silvex)	4.0	1.0	ug/L	4.0	ND	100	70-130	16	20	10/04/13	
2,4-D	46	10	ug/L	40	ND	115	70-130	3	20	10/04/13	
Bentazon	8.8	2.0	ug/L	8.0	ND	110	70-130	1	20	10/04/13	
Dalapon	36	10	ug/L	40	ND	89	70-130	3	20	10/04/13	
Dicamba	5.8	1.5	ug/L	6.0	ND	97	70-130	8	20	10/04/13	
Dinoseb	8.0	2.0	ug/L	8.0	ND	100	70-130	1	20	10/04/13	
Pentachlorophenol	0.66	0.20	ug/L	0.80	ND	82	70-130	3	20	10/04/13	
Picloram	3.2	1.0	ug/L	4.0	ND	80	70-130	2	20	10/04/13	
Surrogate: DCPAA	66			58		113	70-130			10/04/13	

EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A311594-BLK1)

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							10/03/13	
1,1,1-Trichloroethane	ND	0.50	ug/L							10/03/13	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							10/03/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	10	ug/L							10/03/13	
1,1,2-Trichloroethane	ND	0.50	ug/L							10/03/13	
1,1-Dichloroethane	ND	0.50	ug/L							10/03/13	
1,1-Dichloroethene	ND	0.50	ug/L							10/03/13	
1,1-Dichloropropene	ND	0.50	ug/L							10/03/13	
1,2,3-Trichlorobenzene	ND	0.50	ug/L							10/03/13	
1,2,4-Trichlorobenzene	ND	0.50	ug/L							10/03/13	
1,2,4-Trimethylbenzene	ND	0.50	ug/L							10/03/13	
1,2-Dichlorobenzene	ND	0.50	ug/L							10/03/13	
1,2-Dichloroethane	ND	0.50	ug/L							10/03/13	
1,2-Dichloropropane	ND	0.50	ug/L							10/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A311594-BLK1)

1,3,5-Trimethylbenzene	ND	0.50	ug/L							10/03/13	
1,3-Dichlorobenzene	ND	0.50	ug/L							10/03/13	
1,3-Dichloropropane	ND	0.50	ug/L							10/03/13	
1,4-Dichlorobenzene	ND	0.50	ug/L							10/03/13	
2,2-Dichloropropane	ND	0.50	ug/L							10/03/13	
2-Butanone	ND	5.0	ug/L							10/03/13	
2-Chlorotoluene	ND	0.50	ug/L							10/03/13	
2-Hexanone	ND	10	ug/L							10/03/13	
4-Chlorotoluene	ND	0.50	ug/L							10/03/13	
4-Methyl-2-pentanone	ND	5.0	ug/L							10/03/13	
Acetone	ND	10	ug/L							10/03/13	
Benzene	ND	0.50	ug/L							10/03/13	
Bromobenzene	ND	0.50	ug/L							10/03/13	
Bromochloromethane	ND	0.50	ug/L							10/03/13	
Bromodichloromethane	ND	0.50	ug/L							10/03/13	
Bromoform	ND	0.50	ug/L							10/03/13	
Bromomethane	ND	0.50	ug/L							10/03/13	
Carbon Tetrachloride	ND	0.50	ug/L							10/03/13	
Chlorobenzene	ND	0.50	ug/L							10/03/13	
Chloroethane	ND	0.50	ug/L							10/03/13	
Chloroform	ND	0.50	ug/L							10/03/13	
Chloromethane	ND	0.50	ug/L							10/03/13	
cis-1,2-Dichloroethene	ND	0.50	ug/L							10/03/13	
cis-1,3-Dichloropropene	ND	0.50	ug/L							10/03/13	
Dibromochloromethane	ND	0.50	ug/L							10/03/13	
Dibromomethane	ND	0.50	ug/L							10/03/13	
Dichlorodifluoromethane	ND	0.50	ug/L							10/03/13	
Dichloromethane	ND	0.50	ug/L							10/03/13	
Di-isopropyl ether (DIPE)	ND	3.0	ug/L							10/03/13	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	ug/L							10/03/13	
Ethylbenzene	ND	0.50	ug/L							10/03/13	
Hexachlorobutadiene	ND	0.50	ug/L							10/03/13	
Isopropylbenzene	ND	0.50	ug/L							10/03/13	
m,p-Xylenes	ND	0.50	ug/L							10/03/13	
Methyl-t-butyl ether	ND	0.50	ug/L							10/03/13	
Naphthalene	ND	0.50	ug/L							10/03/13	
n-Butylbenzene	ND	0.50	ug/L							10/03/13	
n-Propylbenzene	ND	0.50	ug/L							10/03/13	
o-Xylene	ND	0.50	ug/L							10/03/13	
p-Isopropyltoluene	ND	0.50	ug/L							10/03/13	
sec-Butylbenzene	ND	0.50	ug/L							10/03/13	
Styrene	ND	0.50	ug/L							10/03/13	
tert-Amyl Methyl Ether (TAME)	ND	3.0	ug/L							10/03/13	
tert-Butyl alcohol (TBA)	ND	2.0	ug/L							10/03/13	
tert-Butylbenzene	ND	0.50	ug/L							10/03/13	
Tetrachloroethene (PCE)	ND	0.50	ug/L							10/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank (A311594-BLK1)

Toluene	ND	0.50	ug/L							10/03/13	
trans-1,2-Dichloroethene	ND	0.50	ug/L							10/03/13	
trans-1,3-Dichloropropene	ND	0.50	ug/L							10/03/13	
Trichloroethene (TCE)	ND	0.50	ug/L							10/03/13	
Trichlorofluoromethane	ND	5.0	ug/L							10/03/13	
Vinyl Chloride	ND	0.50	ug/L							10/03/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.5			5.0		90	70-130			10/03/13	
Surrogate: Bromofluorobenzene	4.9			5.0		97	70-130			10/03/13	

Blank Spike (A311594-BS1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		100	70-130			10/03/13	
1,1,1-Trichloroethane	9.2	0.50	ug/L	10		92	70-130			10/03/13	
1,1,2,2-Tetrachloroethane	9.8	0.50	ug/L	10		98	70-130			10/03/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	8.9	10	ug/L	10		89	70-130			10/03/13	
1,1,2-Trichloroethane	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,1-Dichloroethane	9.9	0.50	ug/L	10		99	70-130			10/03/13	
1,1-Dichloroethene	9.7	0.50	ug/L	10		97	70-130			10/03/13	
1,1-Dichloropropene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		100	70-130			10/03/13	
1,2,4-Trichlorobenzene	8.7	0.50	ug/L	10		87	70-130			10/03/13	
1,2,4-Trimethylbenzene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
1,2-Dichlorobenzene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,2-Dichloroethane	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,2-Dichloropropane	10	0.50	ug/L	10		100	70-130			10/03/13	
1,3,5-Trimethylbenzene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,3-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130			10/03/13	
1,3-Dichloropropane	9.6	0.50	ug/L	10		96	70-130			10/03/13	
1,4-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130			10/03/13	
2,2-Dichloropropane	10	0.50	ug/L	10		100	70-130			10/03/13	
2-Butanone	9.7	5.0	ug/L	10		97	70-130			10/03/13	
2-Chlorotoluene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
2-Hexanone	9.4	10	ug/L	10		94	70-130			10/03/13	
4-Chlorotoluene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
4-Methyl-2-pentanone	9.5	5.0	ug/L	10		95	70-130			10/03/13	
Acetone	9.8	10	ug/L	10		98	70-130			10/03/13	
Benzene	9.9	0.50	ug/L	10		99	70-130			10/03/13	
Bromobenzene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
Bromochloromethane	9.9	0.50	ug/L	10		99	70-130			10/03/13	
Bromodichloromethane	9.5	0.50	ug/L	10		95	70-130			10/03/13	
Bromoform	9.3	0.50	ug/L	10		93	70-130			10/03/13	
Bromomethane	9.2	0.50	ug/L	10		92	70-130			10/03/13	
Carbon Tetrachloride	8.9	0.50	ug/L	10		89	70-130			10/03/13	
Chlorobenzene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
Chloroethane	9.4	0.50	ug/L	10		94	70-130			10/03/13	
Chloroform	10	0.50	ug/L	10		104	70-130			10/03/13	
Chloromethane	10	0.50	ug/L	10		100	70-130			10/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike (A311594-BS1)

cis-1,2-Dichloroethene	9.9	0.50	ug/L	10		99	70-130			10/03/13	
cis-1,3-Dichloropropene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
Dibromochloromethane	9.5	0.50	ug/L	10		95	70-130			10/03/13	
Dibromomethane	9.5	0.50	ug/L	10		95	70-130			10/03/13	
Dichlorodifluoromethane	8.1	0.50	ug/L	10		81	70-130			10/03/13	
Dichloromethane	9.7	0.50	ug/L	10		97	70-130			10/03/13	
Di-isopropyl ether (DIPE)	10	3.0	ug/L	10		104	70-130			10/03/13	
Ethyl tert-Butyl Ether (ETBE)	9.8	0.50	ug/L	10		98	70-130			10/03/13	
Ethylbenzene	9.2	0.50	ug/L	10		92	70-130			10/03/13	
Hexachlorobutadiene	8.1	0.50	ug/L	10		81	70-130			10/03/13	
Isopropylbenzene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
m,p-Xylenes	18	0.50	ug/L	20		92	70-130			10/03/13	
Methyl-t-butyl ether	21	0.50	ug/L	20		105	70-130			10/03/13	
Naphthalene	8.0	0.50	ug/L	10		80	70-130			10/03/13	
n-Butylbenzene	9.4	0.50	ug/L	10		94	70-130			10/03/13	
n-Propylbenzene	9.7	0.50	ug/L	10		97	70-130			10/03/13	
o-Xylene	9.2	0.50	ug/L	10		92	70-130			10/03/13	
p-Isopropyltoluene	9.7	0.50	ug/L	10		97	70-130			10/03/13	
sec-Butylbenzene	9.5	0.50	ug/L	10		95	70-130			10/03/13	
Styrene	9.8	0.50	ug/L	10		98	70-130			10/03/13	
tert-Amyl Methyl Ether (TAME)	9.1	3.0	ug/L	10		91	70-130			10/03/13	
tert-Butyl alcohol (TBA)	12	2.0	ug/L	10		122	70-130			10/03/13	
tert-Butylbenzene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
Tetrachloroethene (PCE)	9.4	0.50	ug/L	10		94	70-130			10/03/13	
Toluene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
trans-1,2-Dichloroethene	9.9	0.50	ug/L	10		99	70-130			10/03/13	
trans-1,3-Dichloropropene	9.6	0.50	ug/L	10		96	70-130			10/03/13	
Trichloroethene (TCE)	9.8	0.50	ug/L	10		98	70-130			10/03/13	
Trichlorofluoromethane	8.6	5.0	ug/L	10		86	70-130			10/03/13	
Vinyl Chloride	8.9	0.50	ug/L	10		89	70-130			10/03/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.8			5.0		97	70-130			10/03/13	
Surrogate: Bromofluorobenzene	4.9			5.0		98	70-130			10/03/13	

Blank Spike Dup (A311594-BSD1)

1,1,1,2-Tetrachloroethane	10	0.50	ug/L	10		100	70-130	0	30	10/03/13	
1,1,1-Trichloroethane	9.2	0.50	ug/L	10		92	70-130	0	30	10/03/13	
1,1,2,2-Tetrachloroethane	9.9	0.50	ug/L	10		99	70-130	1	30	10/03/13	
1,1,2-Trichloro-1,2,2-trifluoroethane	8.9	10	ug/L	10		89	70-130	0	30	10/03/13	
1,1,2-Trichloroethane	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
1,1-Dichloroethane	10	0.50	ug/L	10		100	70-130	1	30	10/03/13	
1,1-Dichloroethene	9.7	0.50	ug/L	10		97	70-130	0	30	10/03/13	
1,1-Dichloropropene	9.3	0.50	ug/L	10		93	70-130	3	30	10/03/13	
1,2,3-Trichlorobenzene	10	0.50	ug/L	10		100	70-130	1	30	10/03/13	
1,2,4-Trichlorobenzene	9.6	0.50	ug/L	10		96	70-130	10	30	10/03/13	
1,2,4-Trimethylbenzene	9.8	0.50	ug/L	10		98	70-130	1	30	10/03/13	
1,2-Dichlorobenzene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A311594-BSD1)

1,2-Dichloroethane	9.7	0.50	ug/L	10		97	70-130	1	30	10/03/13	
1,2-Dichloropropane	9.9	0.50	ug/L	10		99	70-130	1	30	10/03/13	
1,3,5-Trimethylbenzene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
1,3-Dichlorobenzene	9.8	0.50	ug/L	10		98	70-130	1	30	10/03/13	
1,3-Dichloropropane	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
1,4-Dichlorobenzene	9.7	0.50	ug/L	10		97	70-130	0	30	10/03/13	
2,2-Dichloropropane	9.9	0.50	ug/L	10		99	70-130	1	30	10/03/13	
2-Butanone	10	5.0	ug/L	10		100	70-130	4	30	10/03/13	
2-Chlorotoluene	9.7	0.50	ug/L	10		97	70-130	1	30	10/03/13	
2-Hexanone	9.2	10	ug/L	10		92	70-130	2	30	10/03/13	
4-Chlorotoluene	9.9	0.50	ug/L	10		99	70-130	1	30	10/03/13	
4-Methyl-2-pentanone	9.2	5.0	ug/L	10		92	70-130	3	30	10/03/13	
Acetone	10	10	ug/L	10		100	70-130	2	30	10/03/13	
Benzene	9.8	0.50	ug/L	10		98	70-130	1	30	10/03/13	
Bromobenzene	9.8	0.50	ug/L	10		98	70-130	1	30	10/03/13	
Bromochloromethane	9.8	0.50	ug/L	10		98	70-130	1	30	10/03/13	
Bromodichloromethane	9.5	0.50	ug/L	10		95	70-130	0	30	10/03/13	
Bromoform	9.2	0.50	ug/L	10		92	70-130	0	30	10/03/13	
Bromomethane	9.4	0.50	ug/L	10		94	70-130	2	30	10/03/13	
Carbon Tetrachloride	9.0	0.50	ug/L	10		90	70-130	0	30	10/03/13	
Chlorobenzene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
Chloroethane	9.1	0.50	ug/L	10		91	70-130	2	30	10/03/13	
Chloroform	10	0.50	ug/L	10		105	70-130	1	30	10/03/13	
Chloromethane	8.4	0.50	ug/L	10		84	70-130	18	30	10/03/13	
cis-1,2-Dichloroethene	9.9	0.50	ug/L	10		99	70-130	1	30	10/03/13	
cis-1,3-Dichloropropene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130	4	30	10/03/13	
Dibromomethane	9.6	0.50	ug/L	10		96	70-130	1	30	10/03/13	
Dichlorodifluoromethane	8.1	0.50	ug/L	10		81	70-130	1	30	10/03/13	
Dichloromethane	9.9	0.50	ug/L	10		99	70-130	2	30	10/03/13	
Di-isopropyl ether (DIPE)	10	3.0	ug/L	10		100	70-130	4	30	10/03/13	
Ethyl tert-Butyl Ether (ETBE)	10	0.50	ug/L	10		102	70-130	4	30	10/03/13	
Ethylbenzene	9.2	0.50	ug/L	10		92	70-130	0	30	10/03/13	
Hexachlorobutadiene	9.3	0.50	ug/L	10		93	70-130	14	30	10/03/13	
Isopropylbenzene	9.7	0.50	ug/L	10		97	70-130	2	30	10/03/13	
m,p-Xylenes	18	0.50	ug/L	20		92	70-130	1	30	10/03/13	
Methyl-t-butyl ether	21	0.50	ug/L	20		104	70-130	1	30	10/03/13	
Naphthalene	9.3	0.50	ug/L	10		93	70-130	15	30	10/03/13	
n-Butylbenzene	9.4	0.50	ug/L	10		94	70-130	1	30	10/03/13	
n-Propylbenzene	9.6	0.50	ug/L	10		96	70-130	1	30	10/03/13	
o-Xylene	9.2	0.50	ug/L	10		92	70-130	0	30	10/03/13	
p-Isopropyltoluene	9.7	0.50	ug/L	10		97	70-130	1	30	10/03/13	
sec-Butylbenzene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
Styrene	9.5	0.50	ug/L	10		95	70-130	4	30	10/03/13	
tert-Amyl Methyl Ether (TAME)	10	3.0	ug/L	10		100	70-130	10	30	10/03/13	
tert-Butyl alcohol (TBA)	10	2.0	ug/L	10		103	70-130	17	30	10/03/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 524.2 - Quality Control

Batch: A311594

Prepared: 10/2/2013

Prep Method: EPA 524.2

Analyst: JGB

Blank Spike Dup (A311594-BSD1)

tert-Butylbenzene	9.4	0.50	ug/L	10		94	70-130	2	30	10/03/13	
Tetrachloroethene (PCE)	9.4	0.50	ug/L	10		94	70-130	0	30	10/03/13	
Toluene	9.6	0.50	ug/L	10		96	70-130	0	30	10/03/13	
trans-1,2-Dichloroethene	9.7	0.50	ug/L	10		97	70-130	2	30	10/03/13	
trans-1,3-Dichloropropene	9.5	0.50	ug/L	10		95	70-130	1	30	10/03/13	
Trichloroethene (TCE)	9.7	0.50	ug/L	10		97	70-130	1	30	10/03/13	
Trichlorofluoromethane	8.8	5.0	ug/L	10		88	70-130	2	30	10/03/13	
Vinyl Chloride	8.8	0.50	ug/L	10		88	70-130	1	30	10/03/13	
Surrogate: 1,2-Dichlorobenzene-d4	4.9			5.0		98	70-130			10/03/13	
Surrogate: Bromofluorobenzene	4.9			5.0		99	70-130			10/03/13	

EPA 525.2 - Quality Control

Batch: A311693

Prepared: 10/3/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank (A311693-BLK1)

Alachlor	ND	1.0	ug/L							10/04/13	
Atrazine	ND	0.50	ug/L							10/04/13	
Benzo(a)pyrene	ND	0.10	ug/L							10/04/13	
Bis(2-ethylhexyl) adipate	ND	3.0	ug/L							10/04/13	
Bis(2-ethylhexyl) phthalate	ND	3.0	ug/L							10/04/13	
Bromacil	ND	10	ug/L							10/04/13	
Butachlor	ND	0.38	ug/L							10/04/13	
Diazinon	ND	0.25	ug/L							10/04/13	
Dimethoate	ND	10	ug/L							10/04/13	
Metolachlor	ND	0.50	ug/L							10/04/13	
Metribuzin	ND	0.50	ug/L							10/04/13	
Molinate	ND	2.0	ug/L							10/04/13	
Propachlor	ND	0.50	ug/L							10/04/13	
Simazine	ND	1.0	ug/L							10/04/13	
Thiobencarb	ND	1.0	ug/L							10/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			5.1		100	70-130			10/04/13	

Blank Spike (A311693-BS1)

Alachlor	0.49	1.0	ug/L	0.50		97	70-130			10/04/13	
Atrazine	0.44	0.50	ug/L	0.50		88	70-130			10/04/13	
Benzo(a)pyrene	0.091	0.10	ug/L	0.10		91	70-130			10/04/13	
Bis(2-ethylhexyl) adipate	3.5	3.0	ug/L	3.0		114	70-130			10/04/13	
Bis(2-ethylhexyl) phthalate	3.6	3.0	ug/L	3.0		118	70-130			10/04/13	
Bromacil	1.9	10	ug/L	2.0		94	70-130			10/04/13	
Butachlor	1.1	0.38	ug/L	1.3		91	70-130			10/04/13	
Diazinon	0.050	0.25	ug/L	0.050		100	70-130			10/04/13	
Dimethoate	0.43	10	ug/L	0.50		86	70-130			10/04/13	
Metolachlor	2.5	0.50	ug/L	2.5		100	70-130			10/04/13	
Metribuzin	2.3	0.50	ug/L	2.5		91	70-130			10/04/13	
Molinate	2.8	2.0	ug/L	2.5		113	70-130			10/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 525.2 - Quality Control

Batch: A311693

Prepared: 10/3/2013

Prep Method: EPA 525.2

Analyst: KHH

Blank Spike (A311693-BS1)

Propachlor	2.9	0.50	ug/L	2.5		114	70-130			10/04/13	
Simazine	0.32	1.0	ug/L	0.35		92	70-130			10/04/13	
Thiobencarb	0.47	1.0	ug/L	0.50		94	70-130			10/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.0			5.0		99	70-130			10/04/13	

Blank Spike Dup (A311693-BSD1)

Alachlor	0.50	1.0	ug/L	0.50		99	70-130	2	30	10/04/13	
Atrazine	0.47	0.50	ug/L	0.50		94	70-130	6	30	10/04/13	
Benzo(a)pyrene	0.088	0.10	ug/L	0.10		88	70-130	4	30	10/04/13	
Bis(2-ethylhexyl) adipate	3.2	3.0	ug/L	3.0		105	70-130	9	30	10/04/13	
Bis(2-ethylhexyl) phthalate	3.2	3.0	ug/L	3.0		108	70-130	10	30	10/04/13	
Bromacil	2.2	10	ug/L	2.0		110	70-130	15	30	10/04/13	
Butachlor	1.3	0.38	ug/L	1.2		101	70-130	9	30	10/04/13	
Diazinon	0.044	0.25	ug/L	0.050		88	70-130	13	30	10/04/13	
Dimethoate	0.49	10	ug/L	0.50		99	70-130	14	30	10/04/13	
Metolachlor	2.6	0.50	ug/L	2.5		104	70-130	4	30	10/04/13	
Metribuzin	2.7	0.50	ug/L	2.5		106	70-130	15	30	10/04/13	
Molinate	2.7	2.0	ug/L	2.5		107	70-130	6	30	10/04/13	
Propachlor	2.9	0.50	ug/L	2.5		116	70-130	1	30	10/04/13	
Simazine	0.34	1.0	ug/L	0.35		97	70-130	5	30	10/04/13	
Thiobencarb	0.53	1.0	ug/L	0.50		106	70-130	11	30	10/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.3			5.0		106	70-130			10/04/13	

Matrix Spike (A311693-MS1), Source: A311912-02

Alachlor	0.51	1.0	ug/L	0.50	ND	102	70-130			10/04/13	
Atrazine	0.48	0.50	ug/L	0.50	ND	95	70-130			10/04/13	
Benzo(a)pyrene	0.12	0.10	ug/L	0.10	ND	122	70-130			10/04/13	
Bis(2-ethylhexyl) adipate	3.1	3.0	ug/L	3.0	ND	104	70-130			10/04/13	
Bis(2-ethylhexyl) phthalate	3.7	3.0	ug/L	3.0	ND	122	70-130			10/04/13	
Bromacil	2.3	10	ug/L	2.0	ND	118	70-130			10/04/13	
Butachlor	1.4	0.38	ug/L	1.2	ND	109	70-130			10/04/13	
Diazinon	0.044	0.25	ug/L	0.050	ND	88	70-130			10/04/13	
Dimethoate	0.58	10	ug/L	0.50	ND	117	70-130			10/04/13	
Metolachlor	2.7	0.50	ug/L	2.5	ND	109	70-130			10/04/13	
Metribuzin	2.9	0.50	ug/L	2.5	ND	115	70-130			10/04/13	
Molinate	3.0	2.0	ug/L	2.5	ND	118	70-130			10/04/13	
Propachlor	3.1	0.50	ug/L	2.5	ND	124	70-130			10/04/13	
Simazine	0.37	1.0	ug/L	0.35	ND	107	70-130			10/04/13	
Thiobencarb	0.51	1.0	ug/L	0.50	ND	101	70-130			10/04/13	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.3			5.0		107	70-130			10/04/13	

EPA 531.1 - Quality Control

Batch: A311765

Prepared: 10/6/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A311765-BLK1)

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 531.1 - Quality Control

Batch: A311765

Prepared: 10/6/2013

Prep Method: EPA 531.1

Analyst: AAR

Blank (A311765-BLK1)

3-Hydroxycarbofuran	ND	2.0	ug/L							10/11/13	
Aldicarb	ND	2.0	ug/L							10/11/13	
Aldicarb Sulfone	ND	2.0	ug/L							10/11/13	
Aldicarb Sulfoxide	ND	2.0	ug/L							10/11/13	
Carbaryl	ND	2.0	ug/L							10/11/13	
Carbofuran	ND	2.0	ug/L							10/11/13	
Methomyl	ND	2.0	ug/L							10/11/13	
Oxamyl	ND	2.0	ug/L							10/11/13	

Blank Spike (A311765-BS1)

3-Hydroxycarbofuran	4.5	2.0	ug/L	4.2		109	80-120			10/11/13	
Aldicarb	4.2	2.0	ug/L	4.2		101	80-120			10/11/13	
Aldicarb Sulfone	4.6	2.0	ug/L	4.2		110	80-120			10/11/13	
Aldicarb Sulfoxide	4.0	2.0	ug/L	4.2		97	80-120			10/11/13	
Carbaryl	4.4	2.0	ug/L	4.2		105	80-120			10/11/13	
Carbofuran	4.4	2.0	ug/L	4.2		105	80-120			10/11/13	
Methomyl	4.2	2.0	ug/L	4.2		100	80-120			10/11/13	
Oxamyl	5.1	2.0	ug/L	4.2		123	80-120			10/11/13	BS High

Blank Spike Dup (A311765-BSD1)

3-Hydroxycarbofuran	4.4	2.0	ug/L	4.2		105	80-120	4	20	10/11/13	
Aldicarb	4.2	2.0	ug/L	4.2		101	80-120	0	20	10/11/13	
Aldicarb Sulfone	4.3	2.0	ug/L	4.2		103	80-120	6	20	10/11/13	
Aldicarb Sulfoxide	4.0	2.0	ug/L	4.2		95	80-120	2	20	10/11/13	
Carbaryl	4.4	2.0	ug/L	4.2		105	80-120	1	20	10/11/13	
Carbofuran	4.3	2.0	ug/L	4.2		102	80-120	3	20	10/11/13	
Methomyl	4.1	2.0	ug/L	4.2		99	80-120	1	20	10/11/13	
Oxamyl	4.9	2.0	ug/L	4.2		117	80-120	5	20	10/11/13	

Matrix Spike (A311765-MS1), Source: A3J0471-01

3-Hydroxycarbofuran	4.2	2.0	ug/L	4.2	ND	100	65-135			10/11/13	
Aldicarb	4.7	2.0	ug/L	4.2	ND	114	65-135			10/11/13	
Aldicarb Sulfone	4.8	2.0	ug/L	4.2	ND	102	65-135			10/11/13	
Aldicarb Sulfoxide	4.7	2.0	ug/L	4.2	ND	99	65-135			10/11/13	
Carbaryl	4.2	2.0	ug/L	4.2	ND	101	65-135			10/11/13	
Carbofuran	4.0	2.0	ug/L	4.2	ND	96	65-135			10/11/13	
Methomyl	4.4	2.0	ug/L	4.2	ND	106	65-135			10/11/13	
Oxamyl	5.5	2.0	ug/L	4.2	ND	122	65-135			10/11/13	

EPA 547 - Quality Control

Batch: A311763

Prepared: 10/4/2013

Prep Method: EPA 547

Analyst: RJB

Blank (A311763-BLK1)

Glyphosate	ND	25	ug/L							10/04/13	
Surrogate: AMPA	110			100		112	70-130			10/04/13	

Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 547 - Quality Control

Batch: A311763

Prepared: 10/4/2013

Prep Method: EPA 547

Analyst: RJB

Blank Spike (A311763-BS1)

Glyphosate	96	25	ug/L	100		96	70-130			10/04/13	
Surrogate: AMPA	110			100		112	70-130			10/04/13	

Blank Spike Dup (A311763-BSD1)

Glyphosate	100	25	ug/L	100		101	70-130	5	30	10/04/13	
Surrogate: AMPA	110			100		112	70-130			10/04/13	

Matrix Spike (A311763-MS1), Source: A3J0044-01

Glyphosate	100	25	ug/L	100	ND	99	70-130			10/04/13	
Surrogate: AMPA	110			100		107	70-130			10/04/13	

Matrix Spike Dup (A311763-MSD1), Source: A3J0044-01

Glyphosate	100	25	ug/L	100	ND	102	70-130	3	30	10/04/13	
Surrogate: AMPA	110			100		109	70-130			10/04/13	

EPA 548.1 - Quality Control

Batch: A311487

Prepared: 9/30/2013

Prep Method: EPA 548.1

Analyst: KHH

Blank (A311487-BLK1)

Endothall	ND	45	ug/L							10/02/13	
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Blank Spike (A311487-BS1)

Endothall	14	45	ug/L	20		69	60-111			10/02/13	
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Blank Spike Dup (A311487-BSD1)

Endothall	14	45	ug/L	20		72	60-111	4	46	10/02/13	
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Matrix Spike (A311487-MS1), Source: A31912-01

Endothall	3.9	45	ug/L	20	ND	20	10-122			10/02/13	
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EPA 549.2 - Quality Control

Batch: A311596

Prepared: 10/2/2013

Prep Method: EPA 549.2

Analyst: PYA

Blank (A311596-BLK1)

Diquat	ND	4.0	ug/L							10/03/13	
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Blank Spike (A311596-BS1)

Diquat	3.6	4.0	ug/L	4.0		91	70-130			10/03/13	
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Blank Spike Dup (A311596-BSD1)

Diquat	3.7	4.0	ug/L	4.0		93	70-130	3	30	10/03/13	
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Matrix Spike (A311596-MS1), Source: A312272-01

Diquat	3.8	4.0	ug/L	4.0	ND	94	70-130			10/03/13	
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Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
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EPA 549.2 - Quality Control

Batch: A311596

Prepared: 10/2/2013

Prep Method: EPA 549.2

Analyst: PYA

Matrix Spike (A311596-MS2), Source: A3I2272-02

Diquat	3.7	4.0	ug/L	4.0	ND	93	70-130			10/03/13	
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Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable				

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

State of California - ELAP	1180	State of Nevada	CA000792009A
State of California - ELAP (Rancho Cordova)	2435	State of Hawaii	04227CA
State of California - NELAP	04227CA	State of Oregon	4017
State of Washington	C997	State of Oregon - NWTTPH	4021

BSK is not accredited under the NELAC program for the following parameters:

Boron	Silica (SiO2)	Strontium
Threshold Odor		

A3I2260



California American Water

Calif3295



09272013

Turnaround: Standard
Due Date: 10/11/2013

12.5



***Required Fields** Temp: _____

Company/Client Name*: California American Water-Monterey
 Report Attention*: Travis Peterson
 Invoice To*:
 Phone*: 831-646-329
 Fax*:
 Additional cc's: Sarp Sekeroglu
 PO#:
 E-mail*: travis.peterson@amwater.com & ssekeroglu@rbf.com

Address*: PO Box 951 City*: Monterey State*: CA Zip*: 93942
 Project: Water Quality Analysis Project #:
 Regulatory Carbon Copies:
 CDPH Fresno Co
 Merced Co Tulare Co
 Madera Co Other _____

Reporting Options:
 Trace (J-Flag) Swamp EDD Type: _____
 How would you like your completed results sent?*:
 E-Mail Fax Mail
 Regulatory Compliance:
 EDT to California DPH
 System Number*: _____
 Geotracker # _____

Sampler Name (Printed/Signature)*: Sarp Sekeroglu
 TAT*
 Standard - 10 Business Days
 **Rush: Date Needed _____
 Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled*		Matrix*	Comments / Station Code / WTRAX	Alk, Hardness, MBAS, Color, Odor, TDS, pH, Turbidity, EC	Dissolved Metals (lab to filter) Ba, B, Ca, Cu, Fe, Mg, K, Si, Na, St	Total Metals: Al, As, Fe, Mn, Zn	Dissolved: F, Bromide, Chloride, P, orthod-P, Sulfate, Mass Balance	Dissolved: TKN, Ammonia, Nitrite	Nitrate + Nitrite as N, NO3	EPA 524, 504, 505, 515, 525, 531, 547, 548, 549	EXT-Lithium, EXT-Dioxin, EXT-Tritium, EXT-Dissolved Iodide
		Date	Time										
1	Water Sampled	9/25	5 pm		seawater salinity levels	X	X	X	X	X	X	X	X
<p>9/27/13 Per Sarp Sekeroglu, notified of temperature anomaly, ok to proceed with analysis. (m)</p>													

Relinquished by: (Signature and Printed Name) Shelly Tegger Shelly Tegger Company RBF Date 9/27 Time 10:10
 Received by: (Signature and Printed Name) _____ Company _____
 Relinquished by: (Signature and Printed Name) _____ Company _____ Date _____ Time _____
 Received by: (Signature and Printed Name) _____ Company _____
 Received for Lab by: (Signature and Printed Name) _____ Date 9/27/13 Time 10:10
 Payment Received at Delivery: _____ Check / Cash _____
 Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Courier: _____
 Cooling Method: Wet Blue None
 Custody Seal: Y N
 Chilling Process Regun Y N

Payment for services rendered as noted herein are due in full within 30 days from the date Invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agree to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf

6w, Ice

Date Needed: **09/23/2013**



Client: RBF Consulting

Attention: Sarp Sekeroglu

Address: 3180 Imjin Rd Suite 110

City: Marina State, Zip: CA, 93933

Email: Special Instructions: box as 2 kits, place 1 COC in each box

Phone: Requested By: RLR

Fax: Date Requested: 09/20/2013

Prepared By: *Ted*

Date Shipped: *9-20-13*

Ship Via
Shipping Details
Box with Ice Chest

Tests	Description	Preservative	Sets	Lot Number
Metals: Inorganic / Gen Min.	500mL Plastic red lid / label	HNO3	4	
Chlorite, Bromate, Bromide, Chlorate	250mL AG brown label	EDA	2	
Odor: General Physical	500mL AG	None	2	
Non-Metals: Alk, F, Res, Cl, pH, CO2, Solids, SO4	500mL Plastic white lid / label	None	2	
Gen Mineral/Inorganic: BOD, Pb&Cu, TDS, TSS	1L Plastic white lid / label	None	4	
EPA 524.2 & 1,2,3-TCP - Raw Water	3 X 40mL VOAs	HCl	2	
EPA 504 / 505	3 X 40mL VOAs	Na2S2O3	2	
EPA 515	250mL AG blue label	Na2S2O3	2	
EPA 525	2 X 1L AG blue label	Na2S2O3	2	
EPA 531.1	1 x 40mL VOA orange label	MCAA + Na2S2O3	2	
EPA 547-Glyphosate	1 x 40mL VOA blue label	Na2S2O3	2	
EPA 548-Endothal	250mL AG blue label	Na2S2O3	2	
EPA 549-Diquat	1L Plastic (Brown)	Na2S2O3	2	
Dioxin	2 X 1L AG	-	2	
Iodide	250 mL Plastic	None	2	
Tritium	250 mL AG	None	2	



Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info	Was temperature within range? Chemistry $\leq 6^{\circ}\text{C}$ Micro $< 10^{\circ}\text{C}$		Yes	No	NA	Were correct containers and preservatives received for the tests requested?		Yes	No	NA
	If samples were taken today, is there evidence that chilling has begun?		Yes	No	NA	Were there bubbles in the VOA vials? (Volatiles Only)		Yes	No	NA
	Did all bottles arrive unbroken and intact?		Yes	No		Was a sufficient amount of sample received?		Yes	No	
	Did all bottle labels agree with COC?		Yes	No		Do samples have a hold time <72 hours?		Yes	No	NA
	Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?		Yes	No	NA	Was PM notified of discrepancies? PM <u>Michael</u> By/Time <u>9/27 100</u>		Yes	No	NA
Bottles Received "—" means preservation/chlorine checks are either N/A or are performed in the lab	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?							
	Bacti. $\text{Na}_2\text{S}_2\text{O}_3$	—	—							
	None (P) ^{White Cap}	—	—							
	Cr6 Buffer (P) ^{Blue Cap}	pH 9-9.5	Y	N						
	HNO_3 (P) ^{Red Cap}	—	—							
	H_2SO_4 (P) ^{Yellow Cap}	pH ≤ 2	Y	N						
	NaOH (P) ^{Green Cap}	Cl, pH ≥ 12	Y	N						
	$\text{NaOH} + \text{ZnAc}$ (P)	pH ≥ 9	Y	N						
	Dissolved Oxygen 300ml (g)	—	—							
	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—							
	H_2SO_4 (AG) ^{Yellow Label} O&G, Diesel	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ 1 Liter (Brown P) 549	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} 547, 515, 525, 548	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) ^{Blue Label} THMs 524.2 or 524.3	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) ^{Blue Label} 504, 505	—	—							
	$\text{Na}_2\text{S}_2\text{O}_3 + \text{MCAA}$ (CG) ^{Orange Label} 531	pH = 3	Y	N						
	NH_4Cl (AG) ^{Purple Label} 552	—	—							
	EDA (AG) ^{Brown Label} DBPs	—	—							
	Ascorbic + Maleic (AG) ^{Lt Green Label} 524.3	—	—							
	HCL (CG) 524.2, BTEX, Gas, MBE, 8260/824	—	—							
	Buffer pH 4 (CG)	—	—							
	None (CG)	—	—							
	H_3PO_4 (CG) ^{Salmon Label}	—	—							
	Other:									
	Asbestos 1Liter Plastic w/ Foil	—	—							
Low Level Hg / Metals Double Baggie	—	—								
Bottled Water	—	—								
Clear Glass Jar 250 / 500 / 1 Liter	—	—								
Soil Tube Brass / Steel / Plastic	—	—								
Tedlar Bag / Plastic Bag	—	—								
Split	Container	Preservative	Date/Time/Initials		Container	Preservative	Date/Time/Initials			
	S P				S P					
Comments										

Labeled by: JHD @ 14:27

Labels checked by: FE @ 1438

RUSH Paged by: @
Page 36 of 62

External



A3I2260





Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 24, 2013

Mr. Michael Ng
BSK Analytical Laboratories
1414 Stanislaus St.
Fresno, CA 93706

RE: Project: A3I2260
Pace Project No.: 30105077

Dear Mr. Ng:

Enclosed are the analytical results for sample(s) received by the laboratory on October 11, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jacquelyn Collins".

Jacquelyn Collins

jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

CERTIFICATIONS

Project: A312260
 Pace Project No.: 30105077

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601
 ACLASS DOD-ELAP Accreditation #: ADE-1544
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California/TNI Certification #: 04222CA
 Colorado Certification
 Connecticut Certification #: PH-0694
 Delaware Certification
 Florida/TNI Certification #: E87683
 Guam/PADEP Certification
 Hawaii/PADEP Certification
 Idaho Certification
 Illinois/PADEP Certification
 Indiana/PADEP Certification
 Iowa Certification #: 391
 Kansas/TNI Certification #: E-10358
 Kentucky Certification #: 90133
 Louisiana/TNI Certification #: LA080002
 Louisiana/TNI Certification #: 4086
 Maine Certification #: PA0091
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification

Missouri Certification #: 235
 Montana Certification #: Cert 0082
 Nevada Certification
 New Hampshire/TNI Certification #: 2976
 New Jersey/TNI Certification #: PA 051
 New Mexico Certification
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Oregon/TNI Certification #: PA200002
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 South Dakota Certification
 Tennessee Certification #: TN2867
 Texas/TNI Certification #: T104704188
 Utah/TNI Certification #: ANTE
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 460198
 Washington Certification #: C868
 West Virginia Certification #: 143
 Wisconsin/PADEP Certification
 Wyoming Certification #: 8TMS-Q



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: A3I2260
Pace Project No.: 30105077

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30105077001	A3I2260-01	Water	09/25/13 17:00	10/11/13 09:45



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: A312260
Pace Project No.: 30105077

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30105077001	A312260-01	EPA 906.0	SLA	1	PASI-PA



Pace Analytical Services, Inc.
1538 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: A312260
Pace Project No.: 30105077

Method: EPA 906.0
Description: 906.0 Tritium
Client: BSK Analytical Laboratories
Date: October 24, 2013

General Information:

1 sample was analyzed for EPA 906.0. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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G-1268



Pace Analytical Services, Inc.
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

ANALYTICAL RESULTS

Project: A3I2260
 Pace Project No.: 30105077

Sample: A3I2260-01 Lab ID: 30105077001 Collected: 09/25/13 17:00 Received: 10/11/13 09:45 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Tritium	EPA 906.0	38.7 ± 122 (212)	pCi/L	10/18/13 22:02	10028-17-8	

REPORT OF LABORATORY ANALYSIS

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 Greensburg, PA 15601
 (724)850-5600

QUALITY CONTROL DATA

Project: A3I2260
 Pace Project No.: 30105077

QC Batch: RADC/17468 Analysis Method: EPA 906.0
 QC Batch Method: EPA 906.0 Analysis Description: 906.0 Tritium
 Associated Lab Samples: 30105077001

METHOD BLANK: 645156 Matrix: Water
 Associated Lab Samples: 30105077001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Tritium	2.51 ± 116 (206)	pCi/L	10/22/13 10:25	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: A312260
Pace Project No.: 30105077

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PRL - Pace Reporting Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Act - Activity
Unc - Uncertainty
(MDC) - Minimum Detectable Concentration
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER

A312260

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-486-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical-Radiochem
1638 Roseytown Rd Ste 2,3,4
Greensburg, PA 15601
Phone : (724) 850-5600
Fax: (724) 722-5208
Turnaround (Days): Standard
QC Deliverables: I (Std) III IV

Handwritten: 502105077, 001

Table with 3 columns: Sample ID, Samp Desc, Sample Date. Row 1: A312260-01, Water Samples, 09/25/2013 17:00

Matrix: Water

Analysis: 250 mL AG w / none
EXT-Tritium

Non preserved glass container

Released By: [Signature] Date: 10/4/13
Received By: [Signature] Date: 10-11-13 0945
G-1272

Sample Condition Upon Receipt



Client Name: BSK

Project # 30105077

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1Z 93X 921 035837 6151

Optional
 Proj. Due Date:
 Proj. Name:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other Ziploc

Thermometer Used 5 6 7 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature N/A

Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: TAW 10-11-13

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4. <u>TAW 10-11-13</u>
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <u>NP</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, sulfonam, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed <u>TAW</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature]

Date: 10/14/13

Quality Control Sample Performance Assessment



Analyst: SLA
 Date: 10/22/2013 Method: EPA 806.0
 Worklist: 17458 SOP: PCH-R-021
 Matrix: DW MB Sample ID: 545156

Method Blank Assessment						
Analyte	Activity	1.98 Sig Unc.	MDC	Critical Value	Flag	Assessment
Tritium	2.5100	116.2000	205.9000	97.66000		

Laboratory Control Sample Assessment						
Analyte:	LCS		LCSD		LCSD	
	Count Date:	10/19/13 0:04	10/19/13 1:06			
Spike I.D.:	10-003	10-003				
Spike Concentration (pCi/L):	2536.685	2536.668				
Volume Used (mL):	0.100	0.100				
Aliquot Volume (L, g, F):	0.100	0.100				
Target Conc. (pCi/L, g, F):	2536.685	2536.668				
1.98 Sigma Uncertainty (Calculated):	69.607	69.606				
Result (pCi/L, g, F):	2160.070	2310.830				
1.98 Sigma Unc:	223.600	225.700				
% Recovery:	85.15%	91.10%				
Assessment:	Pass	Pass				
Upper % Recovery Limits:	126.00%	126.00%				
Lower % Recovery Limits:	75.00%	75.00%				

Duplicate Sample Assessment	
LCS/LCSD Y or N?:	Y
Analyte:	Tritium
Sample I.D.:	LCS17468
Duplicate Sample I.D.:	LCSD17468
Sample Result (pCi/L, g, F):	2190.0700
1.98 Sigma Unc:	223.6000
Sample Duplicate Result (pCi/L, g, F):	2310.8300
Duplicate Sample 1.98 Sigma Unc:	225.7000
Either results below MDC?:	N
Relative Percent Difference:	6.74%
Assessment:	Pass
% RPD Limit:	25.00%

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC

Comments:

Sample Matrix Spike Control Assessment		
Analyte:	Tritium	Tritium
Sample Collection Date:	9/24/2013	10/6/2013
Sample I.D.:	35109631034	35111260001
Sample MS I.D.:	35109631904MS	35111260001MS
Sample MSD I.D.:		
Spike I.D.:	10-003	10-003
MS/MSD Decay Corrected Spike Conc. (pCi/L):	2546.281	2540.756
Spike Volume Used in MS (mL):	0.20	0.20
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):	0.1000	0.0500
MS Target Conc. (pCi/L, g, F):	5092.562	10183.025
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike uncertainty (calculated):	139.740	278.973
MSD Spike uncertainty (calculated):		
Sample Result:	117.600	54.420
Sample 1.98 Sigma Unc.:	126.400	123.600
Sample Matrix Spike Result:	4659.050	8351.770
Sample MS 1.98 Sigma Unc.:	308.800	407.700
Sample Matrix Spike Duplicate Result:		
Sample MSD 1.98 Sigma Unc.:		
MS % Recovery:	93.10%	91.48%
MSD % Recovery:		
MS Assessment:	Pass	Pass
MSD Assessment:		
MS/MSD Upper % Recovery Limits:	126.00%	126.00%
MS/MSD Lower % Recovery Limits:	75.00%	75.00%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Analyte:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike 1.98 Sigma Unc.:	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate 1.98 Sigma Unc.:	
MS/MSD Relative Percent Difference:	
MS/MSD RPD Assessment:	
% RPD Limit:	

Clayton



1638 Roseytown Road
Greensburg, PA 15601
(724)850-5600

SAMPLE ACKNOWLEDGMENT

Samples Submitted By: BSK Analytical Laboratories
Client Project ID: A312260
Client PO#:

Pace Project Manager: Jacquelyn Collins
Phone (724)850-5600
jacquelyn.collins@pacelabs.com

Pace Analytical Project ID: 30105077

Samples Received: October 11, 2013 09:45 AM

Estimated Completion: November 01, 2013

CC: Mr. Michael Ng

Customer Sample ID	Pace Analytical Lab ID	Matrix	Date/Time Collected	Method
A312260-01	30105077001	Water	09/25/13 17:00	906.0 Tritium



1638 Roseytown Road
Greensburg, PA 15601
(724)850-5600

SAMPLE ACKNOWLEDGMENT

Analyte List

Customer Sample ID	Method	Compound	Reporting Limit Units
A3I2260-01	906.0 Tritium	Tritium	



Pace Analytical Services, Inc.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Michael Ng
BSK Analytical Laboratories
1414 Stanislaus Street
Fresno CA 93706

Report Information:

Pace Project #: 10244542
Sample Receipt Date: 10/04/2013
Client Project #: A3I2260
Client Sub PO #: N/A
State Cert #: N/A

**REPORT OF
LABORATORY
ANALYSIS FOR
2,3,7,8-TCDD**

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 Drinking Water Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Brittany Hansen, your Pace Project Manager.

Report Summary:

This report contains results of one drinking water sample analyzed to determine 2,3,7,8-TCDD content. This sample was analyzed according to Method 1613 by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

This report has been reviewed by:

October 17, 2013

Scott Unze, Project Manager
(612) 607-6383
(612) 607-6444 (fax)
scott.unze@pacelabs.com

Report Prepared Date:

October 17, 2013



Report of Laboratory Analysis

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
Alabama	40770	Mississippi	MN00064
Alaska	MN00064	Montana	92
Arizona	AZ0014	Nebraska	
Arkansas	88-0680	Nevada	MN_00064_200
California	01155CA	New Jersey (NE)	MN002
Colorado	MN00064	New Mexico	MN00064
Connecticut	PH-0256	New York (NEL)	11647
EPA Region 5	WD-15J	North Carolina	27700
EPA Region 8	8TMS-Q	North Dakota	R-036
Florida (NELAP)	E87605	Ohio	4150
Georgia (DNR)	959	Oklahoma	D9922
Guam	959	Oregon (ELAP)	MN200001-005
Hawaii	SLD	Oregon (OREL)	MN300001-001
Idaho	MN00064	Pennsylvania	68-00563
Illinois	200012	Saipan	MP0003
Indiana	C-MN-01	South Carolina	74003001
Indiana	C-MN-01	Tennessee	2818
Iowa	368	Tennessee	02818
Kansas	E-10167	Texas	T104704192-08
Kentucky	90062	Utah (NELAP)	PAM
Louisiana	03086	Virginia	00251
Maine	2007029	Washington	C755
Maryland	322	West Virginia	9952C
Michigan	9909	Wisconsin	999407970
Minnesota	027-053-137	Wyoming	8TMS-Q

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Reporting Flags

- A = Reporting Limit based on signal to noise
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- * = See Discussion

REPORT OF LABORATORY ANALYSIS

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1153

BSK

Analytical
Laboratories
Engineers & Laboratories

SUBCONTRACT ORDER

A312260

10244549

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Pace Analytical-Dioxin
1700 Elm Street S.E. Suite 200
Minneapolis, MN 55414
Phone : (612) 607-1700
Fax: (612) 607-6444
Turnaround (Days): Standard
QC Deliverables: I Std III IV

Sample ID	Samp Desc	Sample Date
-----------	-----------	-------------

A312260-01 Water Samples

10244549001

09/25/2013 17:00

Matrix: Water


Analysis 1 L AG w/ none
EXT-Dioxin-DW matrix, EPA 1613 2,3,7,8-TCDD

T=4.8°C

Released By [Signature] Date 10/3/13

Received By [Signature] Date 10-4-13 08:49

Released By	Date	Received By	Date
-------------	------	-------------	------

	Document Name: Sample Condition Upon Receipt Form	Document Revised: 19Sep2013 Page 1 of 1
	Document No.: F-MN-L-213-rev.07	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: BSSIC Project #: _____

WO# : 10244542



Courier: Fed Ex UPS USPS Client

Commercial Pace Other: _____

Tracking Number: 7968 3079 5640

Custody Seal on Cooler/Box Present? Yes No Seals Intact? Yes No **Optional:** Proj. Due Date: _____ Proj. Name: _____

Packing Material: Bubble Wrap Bubble Bags None Other: _____ Temp Blank? Yes No

Thermom. Used: 80512447 72337080 B88A912167504 B88A9132521491 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temp Read (°C): 5.0 Cooler Temp Corrected (°C): 4.8 Biological Tissue Frozen? Yes No
Temp should be above freezing to 6°C Correction Factor: -.2 Date and Initials of Person Examining Contents: CBH 10-10-13

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	6.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes Date/Time/ID/Analysis Matrix: <u>WV</u>		
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Sample #
Exceptions: VOA, Coliform, TOC, Oil and Grease, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? Yes No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: BH2

Date: 10/7/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Drinking Water Analysis Results
2,3,7,8-TCDD – USEPA Method 1613B

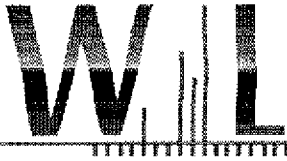
Tel: 612-607-1700
Fax: 612-607-6444

Sample ID..... **A3I2260-01** Date Collected.....09/25/2013
Client..... BSK Analytical Laboratories Date Received.....10/04/2013
Lab Sample ID..... 10244542001 Date Extracted.....10/11/2013

	Sample A3I2260-01	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	ND	ND	--	--
RL	5.0 pg/L	5.0 pg/L	--	--
2,3,7,8-TCDD Recovery	--	--	116%	103%
Spike Recovery Limit	--	--	73-146%	73-146%
RPD				11.9%
IS Recovery	81%	67%	81%	57%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	90%	90%	93%	63%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	F131016A_20	F131016A_06	F131016A_03	F131016A_04
Analysis Date	10/16/2013	10/16/2013	10/16/2013	10/16/2013
Analysis Time	13:10	06:08	04:45	05:13
Analyst	BAL	BAL	BAL	BAL
Volume	1.047L	1.002L	1.013L	1.006L
Dilution	NA	NA	NA	NA
ICAL Date	10/09/2013	10/09/2013	10/09/2013	10/09/2013
CCAL Filename	F131016A_09	F131016A_02	F131016A_02	F131016A_02

! = Outside the Control Limits
 ND = Not Detected
 RL = Reporting Limit
 Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A
 RPD = Relative Percent Difference of Lab Spike Recoveries
 IS = Internal Standard [2,3,7,8-TCDD- ¹³C₁₂]
 CS = Cleanup Standard [2,3,7,8-TCDD- ³⁷Cl₄]

Analyst: Brian A. Lark



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1954

Certificate of Analysis

Report Date: 11/06/13 13:57
Received Date: 10/02/13 08:30
Turnaround Time: Normal

Project: A3I2260

Phones: (559) 497-2888
Fax: (559) 485-6935

P.O. #:

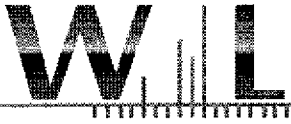
Attn: Michael Ng

Client: BSK Analytical Laboratories
 550 West Locust Avenue
 Fresno, CA 93650

Dear Michael Ng :

Enclosed are the results of analyses for samples received 10/2/2013 with the Chain of Custody document. The samples were received in good condition, at 3.2 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Lab Sample ID: 3J02006-01	Sample ID: A3I2260-01									Matrix: Water
Sampled by: Client	Sampled: 09/25/13 17:00									
Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Lithium, Total	150	7.0	50	ug/l	5	EPA 200.7	10/10/13	10/11/13 11:32	W3J0563	
Iodide, Dissolved	ND	21	500	ug/l	50	EPA 9056A	11/5/13	11/5/13 19:57	W3K0192	M-05, Q-14



Certificate of Analysis

Quality Control Section

Anions by IC, EPA Method 300.0/300.1/326 - Quality Control

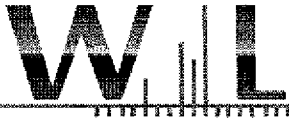
Batch W3K0192 - EPA 9056A

Blank (W3K0192-BLK1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved		ND		ug/l					
LCS (W3K0192-BS1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved		35.3		ug/l	40.0	88	85-115		
Matrix Spike (W3K0192-MS1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57			
		Source: 3J15074-01							
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved	179	368		ug/l	200	94	80-120		
Matrix Spike Dup (W3K0192-MSD1)					Prepared: 11/05/13	Analyzed: 11/05/13 19:57			
		Source: 3J15074-01							
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Iodide, Dissolved	179	355		ug/l	200	88	80-120	3	20

Metals by EPA 200 Series Methods - Quality Control

Batch W3J0563 - EPA 200.7

Blank (W3J0563-BLK1)					Prepared: 10/10/13	Analyzed: 10/11/13 10:46			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total		ND		ug/l					
LCS (W3J0563-BS1)					Prepared: 10/10/13	Analyzed: 10/11/13 11:24			
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total		957		ug/l	1000	96	85-115		
Matrix Spike (W3J0563-MS1)					Prepared: 10/10/13	Analyzed: 10/11/13 11:04			
		Source: 3J09027-11							
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total	ND	963		ug/l	1000	96	70-130		
Matrix Spike (W3J0563-MS2)					Prepared: 10/10/13	Analyzed: 10/11/13 11:09			
		Source: 3J09027-14							
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total	2.18	958		ug/l	1000	96	70-130		
Matrix Spike Dup (W3J0563-MSD1)					Prepared: 10/10/13	Analyzed: 10/11/13 11:06			
		Source: 3J09027-11							
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total	ND	975		ug/l	1000	97	70-130	1	30
Matrix Spike Dup (W3J0563-MSD2)					Prepared: 10/10/13	Analyzed: 10/11/13 11:12			
		Source: 3J09027-14							
Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Lithium, Total	2.18	968		ug/l	1000	97	70-130	1	30



Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

Certificate of Analysis

Notes:

The Chain of Custody document is part of the analytical report.

Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.

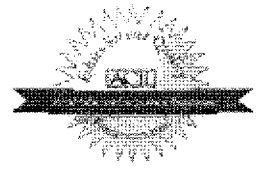
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).

For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature

Contact: Kim G Tu (Project Manager)



ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

M-05	Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
O-14	This analysis was requested by the client after the holding time was exceeded.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable



SUBCONTRACT ORDER

A312260

3502006

SENDING LABORATORY:

BSK Associates
1414 Stanislaus St
Fresno, CA 93706
Phone: 559-497-2888
Fax: 559-485-6935
Project Manager: Michael Ng
E-mail: mng@bskinc.com

RECEIVING LABORATORY:

Weck Laboratories, Inc.
14859 E Clark Avenue
City of Industry, CA 91745-1396
Phone: (626) 336-2139
Fax: (626) 336-2634
Turnaround (Days): Standard
QC Deliverables: I, II, III, IV

Table with 3 columns: Sample ID, Samp Desc, Sample Date. Row 1: A312260-01, Water Samples, 09/25/2013 17:00

Matrix: Water

Analysis 250 ml P w / NONE
EXT-Iodide
EXT-Miscellaneous 500 ml P w / HNO3
Dissolved Lithium

320

Released By [Signature] Date 10-1-13
Received By [Signature] Date 10/02/13 08:30
Released By [Signature] Date
Received By [Signature] Date



Weck Laboratories, Inc.

Environmental and Analytical Services - Since 1964

Sample Receipt Acknowledgement

WORK ORDER: 3J02006

Printed: 10/3/2013 10:53:46AM

Client: BSK Analytical Laboratories

Project Manager: Kim G Tu

Project: Metals

Project Number: A3I2260

Report To:

BSK Analytical Laboratories

Michael Ng

550 West Locust Avenue

Fresno, CA 93650

Phone: (559) 497-2888

Fax: (559) 485-6935

Invoice To:

BSK Analytical Laboratories

Accounts Payable - Anise Foote

550 West Locust Avenue

Fresno, CA 93650

Phone : (559) 497-2888

Fax: (559) 485-6935

Date Due: 10/16/13 15:00 (10 day TAT)

Received By: Lian Guang Liao

Date Received: 10/02/13 08:30

Logged In By: Jaime Gomez

Date Logged In: 10/02/13 09:31

Samples Received at:	3.2°C	All containers intact:	Yes	Chain of custody completed:	Yes
Number of Ice chests/packages:	1	Custody seals present:	NA	Sample labels & COC agree:	Yes
Appropriate Sample Containers:	Yes	Custody seals intact:	NA	Samples preserved properly:	Yes
		Samples received on ice:	Yes	Sample volume sufficient:	Yes
		Custody Seals:	No	Sufficient holding time for all tests:	Yes

Analysis	TAT	Expires	Comments
3J02006-01 A3I2260-01 [Water] Sampled 09/25/13 17:00 Pacific			
Iodide water 9056M	10	10/23/13 17:00	
200.7 Li_diss	10	03/24/14 17:00	

Comments:

10/3/2013

Authorized Signature

Date

Note:

If any of the information included in this sample receipt acknowledgement is incorrect (sample information, analysis, etc), please contact the lab at (626) 336-2139. Thank you.

***GEO*SCIENCE**

A white graphic element consisting of a horizontal line that curves downwards in the center and then rises back up to meet the end of the horizontal line, resembling a stylized 'V' or a decorative underline.

GEOSCIENCE Support Services, Inc. | P (909) 451-6650 | F (909) 451-6638

620 W. Arrow Highway, Suite 2000, La Verne, CA 91750 | Mailing: P.O. Box 220, Claremont, CA 91711

APPENDIX D
Coastal Development Permits

APPENDIX D-1

Coastal Development Permit #A-3-MRA-14-0050

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE (415) 904-5200
FAX (415) 904-5400
TDD (415) 597-5885

**COASTAL DEVELOPMENT PERMIT**

On November 12, 2014, by a vote of 11-0, the California Coastal Commission granted to California American Water Company (Cal-Am) Coastal Development Permit #A-3-MRA-14-0050 subject to the attached standard and special conditions, for development consisting of:

Construction, operation, and decommissioning of a test slant well at the CEMEX sand mining facility in the City of Marina and beneath Monterey Bay in the County of Monterey.

Issued on behalf of the Coastal Commission on December 8, 2014.

CHARLES LESTER
Executive Director

A handwritten signature in cursive script, appearing to read "Alison J. Dettmer".

By: ALISON J. DETTMER
Deputy Director
Energy, Ocean Resources, and Federal Consistency Division

Permit A-3-MRA-14-0050

December 8, 2014

Page 2 of 12

Acknowledgment:

The undersigned Permittee acknowledges receipt of this permit and agrees to abide by all terms and conditions thereof.

The undersigned Permittee acknowledges that Government Code Section 818.4, which states in pertinent part, that: "A public entity is not liable for injury caused by the issuance... of any permit..." applies to the issuance of this permit.

IMPORTANT: THIS PERMIT IS NOT VALID UNLESS AND UNTIL A COPY OF THE PERMIT WITH THE SIGNED ACKNOWLEDGMENT HAS BEEN RETURNED TO THE COMMISSION OFFICE (14 Cal. Admin. Code Section 13158(a).)

12/8/14
Date


Signature of Permittee or Representative

STANDARD CONDITIONS

This permit is subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

SPECIAL CONDITIONS

This permit is subject to the following special conditions:

1. **Proof of Legal Interest and Other Approvals.** The Permittee shall provide to the Executive Director a copy of each of the following approvals or documentation from the relevant agency that such approval is not required:
 - a. PRIOR TO PERMIT ISSUANCE, proof of legal interest in the project site.
 - b. PRIOR TO CONNECTING TO THE OUTFALL, the negotiated agreement or memorandum of understanding between the applicant and the Monterey Regional Water Pollution Control Agency (“MRWPCA”) regarding connection and use of the ocean outfall for discharge of water produced from the test well.
 - c. PRIOR TO ISSUANCE OF CDP 9-14-1735, a lease from the State Lands Commission.

The Permittee shall inform the Executive Director of any changes to the project required by, or resulting from, these permits or approvals. Such changes shall not be incorporated into the project until the Permittee obtains a Commission amendment to this permit, unless the Executive Director determines that no amendment is legally required.

2. **Liability for Costs and Attorneys Fees.** The Permittee shall reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys fees – including (a) those charged by the Office of the Attorney General; and (b) any court costs and attorneys fees that the Coastal Commission may be required by a court to pay – that the Coastal Commission incurs in connection with the defense of any action brought by a party other than the Permittee against the Coastal Commission, its officers, employees, agents, successors, and assigns challenging the approval or issuance of this permit, the interpretation and/or enforcement of permit conditions, or any other matter related to this permit. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.

3. **Project Construction.** The Permittee shall conduct project construction as described and conditioned herein, including the following measures:
 - a. Project-related construction shall occur only in areas as described in the permit application.
 - b. Project-related construction, including site preparation, equipment staging, and installation or removal of equipment or wells, occurring between February 28 and October 1 of any year is subject to the timing and species protection requirements of Special Condition 14.
 - c. Construction equipment and materials, including project-related debris, shall be placed or stored where it cannot enter a storm drain or coastal waters. The Permittee shall ensure that all construction personnel keep all food-related trash items in sealed containers and remove them daily to discourage the concentration of potential predators in snowy plover habitat. All trash and construction debris shall be removed from work areas and properly disposed of at the end of each work day at an approved upland location. All vegetation removed from the construction site shall be taken to a certified landfill to prevent the spread of invasive species.
 - d. To reduce construction noise, noise attenuation devices (e.g., noise blankets, sound baffles, etc.) shall be installed around all stationary construction equipment, including drill rigs.
 - e. All project vehicles shall maintain speeds of 10 miles per hour or less when at the project site. Prior to moving any vehicle, project personnel shall visually inspect for special-status species under and around the vehicle, and shall notify the on-site biologist should any be detected.
 - f. To avoid predation of special-status species, wire excluders or similar anti-perching devices shall be installed and maintained on the top of all aboveground structures (e.g., electrical panel) to deter perching by avian predators.

No changes to these requirements shall occur without a Commission amendment to this permit unless the Executive Director determines that no amendment is legally required.

4. **Protection of Water Quality.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit an erosion control plan for Executive Director review and approval. The Plan shall include a schedule for the completion of erosion- and sediment-control structures, which ensures that all such erosion-control structures are in place by mid-November of the year that construction begins and maintained thereafter. The plan

shall identify standard Best Management Practices to be implemented to address both temporary and permanent measures to control erosion and reduce sedimentation. Site monitoring by the applicant's erosion-control specialist shall be undertaken and a follow-up report shall be prepared that documents the progress and/or completion of required erosion-control measures both during and after construction and decommissioning activities. No synthetic plastic mesh products shall be used in any erosion control materials. All plans shall show that sedimentation and erosion control measures are installed prior to any other ground disturbing work.

5. Hazardous Material Spill Prevention and Response.

(a) PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit for Executive Director review and approval a project-specific Hazardous Materials Spill Prevention and Response Plan that includes:

- an estimate of a reasonable worst case release of fuel or other hazardous materials onto the project site or into adjacent sensitive habitat areas or coastal waters resulting from project operations;
- all identified locations within the project footprint of known or suspected buried hazardous materials, including current or former underground storage tanks, septic systems, refuse disposal areas, and the like;
- specific protocols for monitoring and minimizing the use of fuel and hazardous materials during project operations, including Best Management Practices that will be implemented to ensure minimal impacts to the environment;
- a detailed response and clean-up plan in the event of a spill or accidental discharge or release of fuel or hazardous materials;
- a list of all spill prevention and response equipment that will be maintained on-site;
- the designation of the onsite person who will have responsibility for implementing the plan;
- a telephone contact list of all regulatory and public trustee agencies, including Coastal Commission staff, having authority over the development and/or the project site and its resources to be notified in the event of a spill or material release; and,
- a list of all fuels and hazardous materials that will be used or might be used during the proposed project, together with Material Safety Data Sheets for each of these materials.

The Permittee shall implement the Plan as approved by the Executive Director. The Permittee shall also ensure that all onsite project personnel participate in a training program that describes the above-referenced Plan, identifies the Plan's requirements for implementing Best Management Practices to prevent spills or releases, specifies the location of all clean-up materials and equipment available on site, and specifies the measures that are to be taken should a spill or release occur.

- (b) In the event that a spill or accidental discharge of fuel or hazardous materials occurs during project construction or operations, all non-essential project construction and/or operation shall cease and the Permittee shall implement spill response measures of the approved Plan, including notification of Commission staff. Project construction and/or operation shall not start again until authorized by Commission staff.
- (c) If project construction or operations result in a spill or accidental discharge that causes adverse effects to coastal water quality, ESHA, or other coastal resources, the Permittee shall submit an application to amend this permit, unless the Executive Director determines no amendment is required. The application shall identify proposed measures to prevent future spills or releases and shall include a proposed restoration plan for any coastal resources adversely affected by the spill or release.

The Permittee shall implement the Plan as approved by the Executive Director.

6. **Monitoring and Removal of Temporary Structures, Well Head Burial & Well Closure/Destruction.** The Permittee shall monitor beach erosion at least once per week over the duration of the project to ensure the slant well and monitoring wells remain covered. If the wellheads, linings, casings, or other project components become exposed due to erosion, shifting sand or other factors, the Permittee shall immediately take action to reduce any danger to the public or to marine life and shall submit within one week of detecting the exposed components a complete application for a new or amended permit to remedy the exposure.

Upon project completion, and no later than February 28, 2018, the Permittee shall cut off, cap, and bury the slant well head at least 40 feet below the ground surface, and shall completely remove all other temporary facilities approved by this coastal development permit. To ensure timely removal, the Permittee shall post the bond or other surety device as required by **Special Condition 17** to ensure future removal measures would be appropriately supported and timed to prevent any future resurfacing of the well casing or other project components.

7. **Assumption of Risk, Waiver of Liability and Indemnity.** By acceptance of this permit, the Permittee acknowledges and agrees:
- a. that the site may be subject to hazards from coastal erosion, storm conditions, wave uprush, and tsunami runup;
 - b. to assume the risks to the Permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development;
 - c. to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and
 - d. to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

8. **No Future Shoreline Protective Device.** By acceptance of this permit, the Permittee agrees, on behalf of itself and all other successors and assigns, that no shoreline protective device(s) shall ever be constructed to protect the development approved pursuant to this permit, including the wells, supporting infrastructure, and any future improvements, in the event that the development is threatened with damage or destruction from waves, erosion, storm conditions or other natural hazards in the future. By acceptance of this permit, the Permittee hereby waives, on behalf of itself and all successors and assigns, any rights to construct such devices that may exist under Public Resources Code Section 30235.

By acceptance of this permit, the Permittee further agrees, on behalf of itself and all successors and assigns, that the Permittee shall remove the development authorized by this permit, including the wells, supporting infrastructure, and any future improvements, if any government agency with the requisite jurisdiction and authority has ordered, and the Executive Director has concurred, that the development is not to be used due to any of the hazards identified in **Special Condition 7**. In the event that portions of the development fall to the beach before they are removed, the Permittee shall remove all recoverable debris associated with the development from the beach and ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit.

9. **Geology/Hazards.** The project shall be designed to meet or exceed all applicable requirements of the California Building Code. Project design and construction shall meet or exceed all applicable feasible conclusions and recommendations in the *Geotechnical Investigation for the California American Water Temporary Slant Test Well Project, Marina, Monterey County, California*, dated April 3, 2014 (GeoSoils 2014). Project components shall be sited to avoid areas identified in the coastal erosion memorandum prepared by ESA-PWA (March 2014) as subject to coastal erosion during the duration of the project.
10. **Visual Resources.** PRIOR TO PERMIT ISSUANCE, the Permittee shall submit for Executive Director review and approval a Lighting Plan prepared by a qualified engineer that includes the following:
- a. Identifies all lighting and associated infrastructure proposed for use during the test well project, such as towers, poles, electrical lines, etc. The Lighting Plan shall identify the locations, heights, dimensions, and intensity of the lighting and associated lighting infrastructure.
 - b. Evaluates the effects of project lighting and associated infrastructure on wildlife in the project area and describes proposed measures to avoid or minimize any adverse effects. These measures may include shielding project lighting from off-site locations, directing lighting downward, using the minimum amount of lighting necessary to ensure project safety, and other similar measures.
 - c. Affirms that all lighting structures and fixtures installed for use during the project and visible from public areas, including shoreline areas of Monterey Bay, will be painted or finished in neutral tones that minimize their visibility from those public areas.
- The Permittee shall implement the Lighting Plan as approved by the Executive Director.

11. Protection of Nearby Wells. PRIOR TO STARTING PROJECT-RELATED PUMP TESTS, the Permittee shall install monitoring devices a minimum of four wells on the CEMEX site, within 2000 feet of the test well, and one or more offsite wells to record water and salinity levels within the wells and shall provide to the Executive Director the baseline water and Total Dissolved Solids (“TDS”) levels in those wells prior to commencement of pumping from the test well. The Hydrogeology Working Group shall establish the baseline water and TDS levels for the monitoring wells. During the project pump tests, the Permittee shall, at least once per day, monitor water and TDS levels within those wells in person and/or with electronic logging devices. The Permittee shall post data collected from all monitoring wells on a publicly-available internet site at least once per week and shall provide all monitoring data to the Executive Director upon request. If water levels drop more than one-and-one-half foot, or if TDS levels increase more than two thousand parts per million from pre-pump test conditions, the Permittee shall immediately stop the pump test and inform the Executive Director. The Hydrogeology Working Group shall examine the data from Monitoring Well 4 if the test well is shut down due to either of these causes. The Hydrogeology Working Group shall determine whether the drop in water level or increase in TDS is from a cause or causes other than the test well, and it will submit its determination to the Executive Director. If the Executive Director agrees with the Hydrogeology Working Group that the cause of the drop in water level or increase in TDS was a source or sources other than the test well, then the Executive Director may allow testing to resume. If, however, the Executive Director determines that the drop in water level was caused at least in part by the test well, then the Permittee shall not re-start the pump test until receiving an amendment to this permit.

12. Protection of Biological Resources – Biological Monitor(s). PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall retain one or more qualified biologists approved by the Executive Director to ensure compliance with all relevant mitigation measures and Special Conditions. The approved biologist(s) shall conduct the required preconstruction surveys, implement ongoing monitoring and inspections, keep required records, and notify Commission staff and staff of other agencies as necessary regarding project conformity to these measures and Special Conditions.

The approved biologist(s) shall be present during daylight hours for all project construction and decommissioning activities and on a periodic basis when the biologist determines operational activities may affect areas previously undisturbed by project activities. The biologist(s) shall monitor construction equipment access and shall have authority to halt work activities, if the potential for impacts to special-status species or habitat is identified, until the issue can be resolved. The qualified biologist(s) shall immediately report any observations of significant adverse effects on special-status species to the Executive Director.

- 13. Protection of Biological Resources – Training of On-site Personnel.** Prior to starting construction and decommissioning activities, the approved biologist(s) shall conduct an environmental awareness training for all construction personnel that are on-site during activities. The training shall include, at a minimum, the following:
- Descriptions of the special-status species with potential to occur in the project area;
 - Habitat requirements and life histories of those species as they relate to the project;
 - Avoidance, minimization, and mitigation measures that will be implemented to avoid impacts to the species and their habitats;
 - Identification of the regulatory agencies and regulations that manage their protection; and,
 - Consequences that may result from unauthorized impacts or take of special-status species and their habitats.

The training shall include distribution of an environmental training brochure, and collection of signatures from all attendees acknowledging their participation in the training. Subsequent trainings shall be provided by the qualified biologist as needed for additional construction or operations workers through the life of the project.

14. Protection of Biological Resources – Pre-Construction and Pre-Disturbance

Surveys. The approved biologist(s) shall conduct pre-construction surveys for special-status species as described below:

- a. No more than 14 days before the start of onsite activities or any activities planned for areas previously undisturbed by project activities, the biologist(s) shall conduct a field evaluation of the nature and extent of Western snowy plover activity in the project area and shall identify measures needed to ensure construction activities minimize potential effects to the species. Those measures shall, at a minimum, meet the standards and requirements of the mitigation measures included in Exhibit 5 as well as those included in subsection (d) of this special condition. Those measures shall also be submitted for Executive Director review and approval at least five days before the start of construction activities. The Permittee shall implement the measures as approved by the Executive Director.
- b. Prior to construction or activities planned for areas previously undisturbed by project activities, the approved biologist(s) shall coordinate with construction crews to identify and mark the boundaries of project disturbance, locations of special-status species and suitable habitat, avoidance areas, and access routes. GPS data collected during preconstruction surveys completed in 2012, 2013, and 2014 shall be used to flag the known locations of Monterey spineflower and buckwheat for avoidance during construction. Avoidance buffers shall be established and flagged or fenced as necessary to avoid surface disturbance or vegetation removal. The monitoring biologist shall fit the placement of flags and fencing to minimize impacts to any sensitive resources. At a minimum, the biologist shall direct the placement of highly visible exclusion fencing (snow fence or similar) at the following locations:
 - around sensitive snowy plover habitat areas that do not require regular access;
 - areas along the northern edge of the CEMEX accessway in the vicinity of the settling ponds; and
 - between the work area and any identified occurrence of Monterey spineflower or buckwheat within 10 feet of the existing accessway or work area.

- All delineated areas of temporary fencing shall be shown on grading plans and shall remain in place and functional throughout the duration of construction and decommissioning activities.
- c. The approved biologist(s) shall conduct surveys for Monterey spineflower and buckwheat (host plant for Smith's blue butterfly) within all project disturbance areas and within 20 feet of project boundaries during the blooming period for the spineflower (April-June) to identify and record the most current known locations of these species in the project vicinity. Surveys shall be conducted by a qualified botanist, and shall include collection of Global Positioning System (GPS) data points for use during flagging of sensitive plant species locations and avoidance buffers prior to construction.
 - d. Starting no later than February 1 of each year of project construction, operation, and decommissioning, the approved biologist(s) shall conduct breeding and nesting surveys of sensitive avian species within 500 feet of the project footprint. The approved biologist(s) shall continue those surveys at least once per week during periods of project construction, well re-packing, and decommissioning that occur between February 1 and October 1 each year.

In the event that any sensitive species are present in the project area but do not exhibit reproductive behavior and are not within the estimated breeding/reproductive cycle of the subject species, the qualified biologist shall either: (1) initiate a salvage and relocation program prior to any excavation/maintenance activities to move sensitive species by hand to safe locations elsewhere along the project reach or (2) as appropriate, implement a resource avoidance program with sufficient buffer areas to ensure adverse impacts to such resources are avoided. The Permittee shall also immediately notify the Executive Director of the presence of such species and which of the above actions are being taken. If the presence of any such sensitive species requires review by the United States Fish and Wildlife Service and/or the California Department of Fish and Game, then no development activities shall be allowed or continue until any such review and authorizations to proceed are received and also authorizes construction to proceed.

If an active nest of a federally or state-listed threatened or endangered species, species of special concern, or any species of raptor or heron is found, the Permittee shall notify the appropriate State and Federal wildlife agencies within 24 hours, and shall develop an appropriate action specific to each incident. The Permittee shall notify the California Coastal Commission in writing by facsimile or e-mail within 24 hours and consult with the Commission regarding determinations of State and Federal agencies.

If the biologist(s) identify an active nest of any federally- or state-listed threatened or endangered species, species of special concern, or any species of raptor or heron within 300 feet of construction activities (500 feet for raptors), the biologist(s) shall monitor bird behavior and construction noise levels. The biologist(s) shall be present at all relevant construction meetings and during all significant construction activities (those with potential noise impacts) to ensure that nesting birds are not disturbed by

construction-related noise. The biologist(s) shall monitor birds and noise every day at the beginning of the project and during all periods of significant construction activities. Construction activities may occur only if construction noise levels are at or below a peak of 65 dB at the nest(s) site. If construction noise exceeds a peak level of 65 dB at the nest(s) site, sound mitigation measures such as sound shields, blankets around smaller equipment, mixing concrete batches off-site, use of mufflers, and minimizing the use of back-up alarms shall be employed. If these sound mitigation measures do not reduce noise levels, construction within 300 ft. (500 ft. for raptors) of the nesting areas shall cease and shall not re-start until either new sound mitigation can be employed or nesting is complete.

If active plover nests are located within 300 feet of the project or access routes, avoidance buffers shall be established to minimize potential disturbance of nesting activity, and the biologist shall coordinate with and accompany the Permittee's operational staff as necessary during the nesting season to guide access and activities to avoid impacts to nesting plovers. The biologist shall contact the USFWS and CDFW immediately if a nest is found in areas near the wellhead that could be affected by project operations. Operations shall be immediately suspended until the Permittee submits to the Executive Director written authorization to proceed from the USFWS.

If, after starting project activities, the Permittee must stop construction due to the presence of sensitive species or due to the lack of necessary approvals or permits (e.g., a lease from the State Lands Commission), the Permittee shall remove and properly store all project-related equipment and vehicles away from the project site in a manner that does not adversely affect sensitive species.

- 15. Project Area Restoration.** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall prepare a Restoration Plan for review and approval by the Executive Director that is consistent with the City of Marina restoration requirements as codified in Municipal Code Section 17.41.100. The Plan shall include, at a minimum:
- a. a description of the habitat characteristics and extent of the area to be restored, which shall include, at a minimum, all areas of temporary disturbance in the project footprint other than those areas actively in use by CEMEX for mining purposes;
 - b. performance standards and success criteria to be used;
 - c. a minimum 3:1 ratio of native plants to be replaced within the affected area;
 - d. an invasive species control program to be implemented for the duration of the project;
 - e. the timing of proposed restoration activities;
 - f. proposed methods to monitor restoration performance and success for at least five years following initiation of the Plan; and
 - g. identification of all relevant conditions, requirements, and approvals by regulatory agencies needed to implement the Plan.

The Permittee shall implement the Plan: (1) during and immediately following construction and prior to operation of the test well, and (2) during and immediately following decommissioning activities.

Success criteria will include plant cover and species composition/diversity, which shall meet or exceed adjacent undisturbed dune habitat on the CEMEX parcel as determined by the biological monitor. Success criteria shall, at a minimum, be consistent with the requirements of the existing Lapis Revegetation Plan prepared for the RMC Lonestar Lapis Sand Plant (25 percent average vegetative cover and species diversity of all species listed in Group A of the Plan present and providing at least 1 percent cover).

16. **Invasive Species Control.** The Permittee shall remove and properly dispose of at a certified landfill all invasive or exotic plants disturbed or removed during project activities. The Permittee shall use existing on-site soils for fill material to the extent feasible. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species, or the material must consist of purchased clean material.

17. **Posting of Bond.** To ensure timely removal, **PRIOR TO COMMENCEMENT OF CONSTRUCTION**, the Permittee shall provide to the Commission a surety bond or similar security device acceptable to the Executive Director for \$1,000,000 (one million dollars), and naming the Coastal Commission as the assured, to guarantee the Permittee's compliance with Special Conditions 6 and 15. The surety bond or other security device shall be maintained in full force and effect at all times until Special Conditions 6 and 15 have been met.

APPENDIX D-2

Coastal Development Permit Amendment No. A-3-MRA-14-0050-A1

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400



Page 1 of 3
October 13, 2015
Permit No. **A-3-MRA-14-0050-A1**

COASTAL DEVELOPMENT PERMIT AMENDMENT

On October 6, 2015, by a vote of 12-0, the California Coastal Commission granted to California American Water Company Coastal Development Permit Amendment No. A-3-MRA-14-0050-A1, subject to the attached standard and special conditions, for development consisting of:

Construction, operation, and decommissioning of a test slant well and associated monitoring wells, equipment, and infrastructure at the CEMEX sand mining facility.

The development is located in the coastal zone in the City of Marina, County of Monterey, and in the Commission's retained jurisdiction.

Issued on behalf of the Coastal Commission on October 13, 2015.

CHARLES LESTER
Executive Director

A handwritten signature in black ink, appearing to read "Charles Lester", written over the printed name and title.

for By: ALISON DETTMER
Deputy Director, Energy, Ocean Resources, and Federal Consistency Division

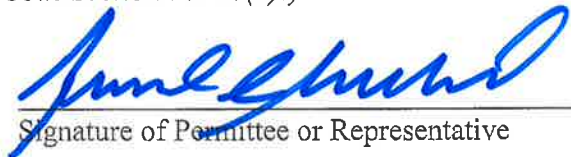
Acknowledgment:

The undersigned permittee(s) acknowledges receipt of this permit and agrees to abide by all terms and conditions thereof.

The undersigned permittee(s) acknowledges that Government Code Section 818.4, which states in pertinent part, that: "A public entity is not liable for injury caused by the issuance...of any permit..." applies to the issuance of this permit.

IMPORTANT: THE PERMIT IS NOT VALID UNLESS AND UNTIL A COPY OF THE PERMIT WITH THE SIGNED ACKNOWLEDGMENT HAS BEEN RETURNED TO THE COMMISSION OFFICE. (14 Cal. Admin. Code Section 13158(a).)

10/13/15
Date


Signature of Permittee or Representative

SPECIAL CONDITIONS

This **Special Condition** modifies **Special Condition 11** as initially imposed by the Commission in Coastal Development Permit A-3-MRA-14-0050. Standard Conditions 1-5 and Special Conditions 1-10 and 12-17 of that permit shall remain in full force and effect. **Special Condition 11** now requires:

“Protection of Nearby Wells. PRIOR TO STARTING PROJECT-RELATED PUMPING TESTS, the Permittee shall install monitoring devices at a minimum of four wells on the CEMEX site, within 2000 feet of the test well, and one or more offsite wells to record groundwater and salinity levels within the wells and shall provide to the Executive Director the baseline groundwater and Total Dissolved Solids (“TDS”) levels in those wells prior to commencement of pumping from the test well.

The Permittee, in coordination with the Hydrogeology Working Group, shall identify groundwater elevation trends and TDS level trends in the groundwater basin resulting from regional influences such as groundwater withdrawals, rainfall events, increases or decreases in streamflow contributions, and other influences. During the project pumping tests, the Permittee shall, at least once per day, monitor groundwater and TDS levels within the monitoring wells in person and/or with electronic logging devices. The Permittee shall post data collected from all monitoring wells on a publicly-available internet site at least once per week and shall provide all monitoring data to the Executive Director upon request.

The Hydrogeology Working Group shall review data from the monitoring wells and prepare a monthly report that shall be submitted to the Executive Director that documents the groundwater elevation trends and TDS level trends resulting from regional influences. If during the pumping tests, data collected from Monitoring Well-4S (“MW4-S”) or Monitoring Well-4M (“MW-4M”) during any weekly monitoring period show either a decrease in groundwater levels that exceeds an identified decrease in regional groundwater level trends by 1.5 feet or more or show an increase in TDS levels that exceeds an identified increase in regional TDS level trends by two thousand parts per million or more, the Permittee shall immediately stop the pumping test and inform the Executive Director. The Hydrogeology Working Group shall examine the data from Monitoring Well 4 if the pumping test is stopped due to either of these causes.

If, based on the above review of monitoring data, the Executive Director or the Hydrogeology Working Group determines that the pumping test caused, at MW-4S or MW4-M, either a decrease in groundwater level of 1.5 feet or more or caused an increase in TDS levels of two thousand parts per million or more in excess of identified regional trends, then the Permittee shall not re-start the pumping test until receiving an amendment to this permit; otherwise the Executive Director will allow the pumping test to resume.”