



Date of Report: 04/04/2014

Paul Mason

Adobe Springs

P.O. Box 1417

Patterson, CA 95363

Client Project: [none]

BCL Project: Title 21 Source

BCL Work Order: 1405226

Invoice ID: B170125

Enclosed are the results of analyses for samples received by the laboratory on 3/6/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Vanessa Sandoval  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



## Table of Contents

### Sample Information

Chain of Custody and Cooler Receipt form.....	3
Laboratory / Client Sample Cross Reference.....	5

### Sample Results

1405226-01 - Adobe Springs.....	6
---------------------------------	---

### Subcontract Reports

WO_1405226_SUB_BABLK.pdf.....	12
WO_1405226_SUB_BSKSA.pdf.....	17
WO_1405226_SUB_FRNTL.pdf.....	28
WO_1405226_SUB_PACEA.pdf.....	36

### Notes

Notes and Definitions.....	47
----------------------------	----



<b>BC LABORATORIES, INC.</b>		4100 Atlas Court □ Bakersfield, CA 93308 (661) 327-4911 □ FAX (661) 327-1918		<b>CHAIN OF CUSTODY</b>	
<b>Report To:</b>		<b>Analysis Requested</b>			
<b>Name:</b> Adobe Springs		Title 21 Group Test			
<b>Phone:</b> (408) 897-3046		X			
<b>Project:</b> Title 21		Drinking Water			
<b>P.O. Box:</b> 1417		X			
<b>City:</b> Patterson					
<b>State:</b> CA <b>Zip:</b> 95363					
<b>Attn:</b> Paul Mason					
<b>Lab#</b> 14-05226	<b>Sample Description</b> Adobe Springs	<b>Date &amp; Time Sampled</b> 3.6.14			
<b>Other:</b> Additionally report Mg for this sample per Mark Ellis					
<b>Comment:</b>		<b>Relinquished by: (Signature)</b> Paul Mason		<b>Received by: (Signature)</b> Mark Ellis 3/6/14 1000	
<b>Billing Info:</b>		<b>Relinquished by: (Signature)</b> Mark Ellis 3/6/14 1115		<b>Received by: (Signature)</b> Kendrick 3.6.14	
<b>Name:</b> Same as above		<b>City:</b> Adobe Springs		<b>State:</b> CA <b>Zip:</b> 95363	
<b>Address:</b>		<b>Attention:</b>		<b>REL. 3.6.14 1115</b>	
<b>City:</b>		<b>State:</b>		<b>REL. 3.6.14 1115</b>	
<b>Attention:</b>		<b>Zip:</b>		<b>REL. 3.6.14 1115</b>	
<b>Relinquished by:</b> Paul Mason		<b>Relinquished by:</b> Mark Ellis		<b>Relinquished by:</b> Kendrick	
<b>Received by:</b> Mark Ellis		<b>Received by:</b> Kendrick		<b>Received by:</b> Kendrick	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Chain of Custody and Cooler Receipt Form for 1405226 Page 2 of 2

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 Of 1

Submission #: 14-05226

**SHIPPING INFORMATION**  
 Federal Express  UPS  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO  
 Emissivity: 0.95 Container: PE Thermometer ID: 207 Date/Time 3-6-14 2220  
 Temperature: (A) 1.3 °C / (C) 1.3 °C Analyst Init SAS

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/GENERAL	EF									
PT PE UNPRESERVED	G									
QT INORGANIC CHEMICAL METALS	H, I									
PT INORGANIC CHEMICAL METALS	J									
PT CYANIDE	K									
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS	L, M									
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A, B									
QT EPA 413.1, 413.2, 418.1										
PT ODOR	N									
RADIOLOGICAL	O									
BACTERIOLOGICAL										
40 ml VOA VIAL- 504	B, Z									
QT EPA 509/608/8080	P									
QT EPA 515.1/8150	Q									
QT EPA 525	R									
QT EPA 525 TRAVEL BLANK										
100ml EPA 547	C, I									
100ml EPA 531.1	D, I									
QT EPA 548	S									
QT EPA 549 <i>See split per Stewart 540-549</i>	X									
QT EPA 632										
QT EPA 8015M										
QT AMBER	V, W									
8 OZ. JAR	U									
2 OZ. JAR <i>8oz HARS 089</i>	T									
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: M Date/Time: 6:25 3-7-14



Adobe Springs  
P.O. Box 1417  
Patterson, CA 95363

**Reported:** 04/04/2014 12:46  
**Project:** Title 21 Source  
**Project Number:** [none]  
**Project Manager:** Paul Mason

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1405226-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	03/06/2014 22:20
	<b>Project Number:</b>	---	<b>Sampling Date:</b>	03/06/2014 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Adobe Springs	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	M.E.	<b>Sample Type:</b>	Water



Adobe Springs  
P.O. Box 1417  
Patterson, CA 95363

Reported: 04/04/2014 12:46  
Project: Title 21 Source  
Project Number: [none]  
Project Manager: Paul Mason

<b>BCL Sample ID:</b> 1405226-01	<b>Client Sample Name:</b> Adobe Springs, 3/6/2014 12:00:00AM, M.E.
----------------------------------	---

Constituent	Method	Result	Units	Dilution	PQL	BW-MCL	Prep Date	Run Date/Time	Lab Quals
-------------	--------	--------	-------	----------	-----	--------	-----------	---------------	-----------

**Inorganics**

Chloride	EPA-300.0	5.3	mg/L	1	0.50	250	03/07/14	03/08/14 00:34	
Fluoride	EPA-300.0	ND	mg/L	1	0.050	2.0	03/07/14	03/08/14 00:34	
Nitrate as N	EPA-300.0	1.2	mg/L	1	0.10	10	03/07/14	03/08/14 00:34	
Sulfate	EPA-300.0	13	mg/L	1	1.0	250	03/07/14	03/08/14 00:34	
Nitrate + Nitrite as N	Calc	1.2	mg/L	1	0.10	10	03/10/14	03/21/14 13:57	
Turbidity	EPA-180.1	0.54	NT Units	1	0.10	5	03/07/14	03/07/14 16:10	
Nitrite as N	EPA-353.2	ND	mg/L	1	0.050	1	03/07/14	03/07/14 19:33	

**Metals**

Total Recoverable Aluminum	EPA-200.7	ND	mg/L	1	0.050	0.2	03/17/14	03/18/14 16:33	
Total Recoverable Antimony	EPA-200.8	ND	mg/L	1	0.0020	0.006	03/07/14	03/11/14 16:01	
Total Recoverable Arsenic	EPA-200.8	ND	mg/L	1	0.0020	0.010	03/07/14	03/11/14 16:01	
<b>Total Recoverable Barium</b>	<b>EPA-200.7</b>	<b>0.013</b>	<b>mg/L</b>	<b>1</b>	<b>0.010</b>	<b>2</b>	<b>03/17/14</b>	<b>03/18/14 16:33</b>	
Total Recoverable Beryllium	EPA-200.8	ND	mg/L	1	0.0010	0.004	03/07/14	03/12/14 12:33	
Total Recoverable Cadmium	EPA-200.8	ND	mg/L	1	0.0010	0.005	03/07/14	03/11/14 16:01	
Total Recoverable Chromium	EPA-200.7	ND	mg/L	1	0.010	0.1	03/17/14	03/18/14 16:33	
Total Recoverable Copper	EPA-200.7	ND	mg/L	1	0.010	1.0	03/17/14	03/18/14 16:33	
<b>Total Recoverable Iron</b>	<b>EPA-200.7</b>	<b>0.073</b>	<b>mg/L</b>	<b>1</b>	<b>0.050</b>	<b>0.3</b>	<b>03/17/14</b>	<b>03/18/14 16:33</b>	
Total Recoverable Lead	EPA-200.8	ND	mg/L	1	0.0010	0.005	03/07/14	03/12/14 12:33	
Total Recoverable Manganese	EPA-200.7	ND	mg/L	1	0.010	0.05	03/17/14	03/18/14 16:33	
Total Recoverable Nickel	EPA-200.7	ND	mg/L	1	0.010	0.1	03/17/14	03/18/14 16:33	
Total Recoverable Selenium	EPA-200.8	ND	mg/L	1	0.0020	0.05	03/07/14	03/12/14 12:33	
Total Recoverable Silver	EPA-200.7	ND	mg/L	1	0.010	0.1	03/17/14	03/18/14 16:33	
Total Recoverable Thallium	EPA-200.8	ND	mg/L	1	0.0010	0.002	03/07/14	03/12/14 12:33	
Total Recoverable Zinc	EPA-200.7	ND	mg/L	1	0.050	5.0	03/17/14	03/18/14 16:33	

**Organics**

1,2-Dibromo-3-chloropropane	EPA-504.1	ND	ug/L	0.972	0.010	0.2	03/12/14	03/12/14 16:11	
Ethylene dibromide	EPA-504.1	ND	ug/L	0.972	0.010	0.05	03/12/14	03/12/14 16:11	
Aldrin	EPA-508	ND	ug/L	1	0.0050		03/13/14	03/18/14 12:30	
alpha-BHC	EPA-508	ND	ug/L	1	0.0050		03/13/14	03/18/14 12:30	
beta-BHC	EPA-508	ND	ug/L	1	0.0050		03/13/14	03/18/14 12:30	
delta-BHC	EPA-508	ND	ug/L	1	0.0050		03/13/14	03/18/14 12:30	
gamma-BHC (Lindane)	EPA-508	ND	ug/L	1	0.0050	0.2	03/13/14	03/18/14 12:30	
Chlordane (Technical)	EPA-508	ND	ug/L	1	0.10	2	03/13/14	03/18/14 12:30	



Adobe Springs  
P.O. Box 1417  
Patterson, CA 95363

Reported: 04/04/2014 12:46  
Project: Title 21 Source  
Project Number: [none]  
Project Manager: Paul Mason

<b>BCL Sample ID:</b> 1405226-01	<b>Client Sample Name:</b> Adobe Springs, 3/6/2014 12:00:00AM, M.E.
----------------------------------	---

Constituent	Method	Result	Units	Dilution	PQL	BW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Organics</b>									
4,4'-DDD	EPA-508	ND	ug/L	1	0.0050		03/13/14	03/18/14 12:30	
4,4'-DDE	EPA-508	ND	ug/L	1	0.0050		03/13/14	03/18/14 12:30	
4,4'-DDT	EPA-508	ND	ug/L	1	0.0050		03/13/14	03/18/14 12:30	
Dieldrin	EPA-508	ND	ug/L	1	0.0050		03/13/14	03/18/14 12:30	
Endosulfan I	EPA-508	ND	ug/L	1	0.0050		03/13/14	03/18/14 12:30	
Endosulfan II	EPA-508	ND	ug/L	1	0.0050		03/13/14	03/18/14 12:30	
Endosulfan sulfate	EPA-508	ND	ug/L	1	0.0050		03/13/14	03/18/14 12:30	
Endrin	EPA-508	ND	ug/L	1	0.0050	2	03/13/14	03/18/14 12:30	
Endrin aldehyde	EPA-508	ND	ug/L	1	0.010		03/13/14	03/18/14 12:30	
Heptachlor	EPA-508	ND	ug/L	1	0.0050	0.4	03/13/14	03/18/14 12:30	
Heptachlor epoxide	EPA-508	ND	ug/L	1	0.0050	0.2	03/13/14	03/18/14 12:30	
Methoxychlor	EPA-508	ND	ug/L	1	0.0050	40	03/13/14	03/18/14 12:30	
Toxaphene	EPA-508	ND	ug/L	1	1.0	3	03/13/14	03/18/14 12:30	
PCB-1016	EPA-508	ND	ug/L	1	0.20		03/13/14	03/18/14 12:30	
PCB-1221	EPA-508	ND	ug/L	1	0.20		03/13/14	03/18/14 12:30	
PCB-1232	EPA-508	ND	ug/L	1	0.20		03/13/14	03/18/14 12:30	
PCB-1242	EPA-508	ND	ug/L	1	0.20		03/13/14	03/18/14 12:30	
PCB-1248	EPA-508	ND	ug/L	1	0.20		03/13/14	03/18/14 12:30	
PCB-1254	EPA-508	ND	ug/L	1	0.20		03/13/14	03/18/14 12:30	
PCB-1260	EPA-508	ND	ug/L	1	0.20		03/13/14	03/18/14 12:30	
Total PCB's (Summation)	EPA-508	ND	ug/L	1	0.20	0.5	03/13/14	03/18/14 12:30	
TCMX (Surrogate)	EPA-508	80.2	%	1	40 - 140 (LCL - UCL)		03/13/14	03/18/14 12:30	
Bentazon	EPA-515.1	ND	ug/L	1	0.80		03/11/14	03/18/14 06:48	
2,4-D	EPA-515.1	ND	ug/L	1	0.40	70	03/11/14	03/18/14 06:48	
Dalapon	EPA-515.1	ND	ug/L	1	5.0	200	03/11/14	03/18/14 06:48	
Dicamba	EPA-515.1	ND	ug/L	1	0.080		03/11/14	03/18/14 06:48	
Dinoseb	EPA-515.1	ND	ug/L	1	0.20	7	03/11/14	03/18/14 06:48	
2,4,5-TP (Silvex)	EPA-515.1	ND	ug/L	1	0.070	50	03/11/14	03/18/14 06:48	
2,4-Dichlorophenylacetic acid (Surrogate)	EPA-515.1	45.0	%	1	30 - 140 (LCL - UCL)		03/11/14	03/18/14 06:48	
Benzene	EPA-524.2	ND	ug/L	1	0.50	5	03/12/14	03/12/14 19:00	
Bromobenzene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Bromochloromethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Bromodichloromethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Bromoform	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Bromomethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	V11

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Adobe Springs  
P.O. Box 1417  
Patterson, CA 95363

Reported: 04/04/2014 12:46  
Project: Title 21 Source  
Project Number: [none]  
Project Manager: Paul Mason

<b>BCL Sample ID:</b> 1405226-01	<b>Client Sample Name:</b> Adobe Springs, 3/6/2014 12:00:00AM, M.E.
----------------------------------	---

Constituent	Method	Result	Units	Dilution	PQL	BW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Organics</b>									
n-Butylbenzene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
sec-Butylbenzene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
tert-Butylbenzene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Carbon tetrachloride	EPA-524.2	ND	ug/L	1	0.50	5	03/12/14	03/12/14 19:00	
Chlorobenzene	EPA-524.2	ND	ug/L	1	0.50	100	03/12/14	03/12/14 19:00	
Chloroethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Chloroform	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Chloromethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
2-Chlorotoluene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
4-Chlorotoluene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Dibromochloromethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,2-Dibromo-3-chloropropane	EPA-524.2	ND	ug/L	1	1.0	0.2	03/12/14	03/12/14 19:00	
1,2-Dibromoethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Dibromomethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,2-Dichlorobenzene	EPA-524.2	ND	ug/L	1	0.50	600	03/12/14	03/12/14 19:00	
1,3-Dichlorobenzene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,4-Dichlorobenzene	EPA-524.2	ND	ug/L	1	0.50	75	03/12/14	03/12/14 19:00	
Dichlorodifluoromethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,1-Dichloroethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,2-Dichloroethane	EPA-524.2	ND	ug/L	1	0.50	5	03/12/14	03/12/14 19:00	
1,1-Dichloroethene	EPA-524.2	ND	ug/L	1	0.50	7	03/12/14	03/12/14 19:00	
cis-1,2-Dichloroethene	EPA-524.2	ND	ug/L	1	0.50	70	03/12/14	03/12/14 19:00	
trans-1,2-Dichloroethene	EPA-524.2	ND	ug/L	1	0.50	100	03/12/14	03/12/14 19:00	
1,2-Dichloropropane	EPA-524.2	ND	ug/L	1	0.50	5	03/12/14	03/12/14 19:00	
1,3-Dichloropropane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
2,2-Dichloropropane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,1-Dichloropropene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
cis-1,3-Dichloropropene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
trans-1,3-Dichloropropene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Total 1,3-Dichloropropene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Ethylbenzene	EPA-524.2	ND	ug/L	1	0.50	700	03/12/14	03/12/14 19:00	
Hexachlorobutadiene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Isopropylbenzene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
p-Isopropyltoluene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Methylene chloride	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Adobe Springs  
P.O. Box 1417  
Patterson, CA 95363

**Reported:** 04/04/2014 12:46  
**Project:** Title 21 Source  
**Project Number:** [none]  
**Project Manager:** Paul Mason

**BCL Sample ID:** 1405226-01      **Client Sample Name:** Adobe Springs, 3/6/2014 12:00:00AM, M.E.

Constituent	Method	Result	Units	Dilution	PQL	BW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Organics</b>									
Methyl t-butyl ether	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Naphthalene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
n-Propylbenzene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Styrene	EPA-524.2	ND	ug/L	1	0.50	100	03/12/14	03/12/14 19:00	
1,1,1,2-Tetrachloroethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,1,2,2-Tetrachloroethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Tetrachloroethene	EPA-524.2	ND	ug/L	1	0.50	5	03/12/14	03/12/14 19:00	
Toluene	EPA-524.2	ND	ug/L	1	0.50	1000	03/12/14	03/12/14 19:00	
1,2,3-Trichlorobenzene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,2,4-Trichlorobenzene	EPA-524.2	ND	ug/L	1	0.50	70	03/12/14	03/12/14 19:00	
1,1,1-Trichloroethane	EPA-524.2	ND	ug/L	1	0.50	200	03/12/14	03/12/14 19:00	
1,1,2-Trichloroethane	EPA-524.2	ND	ug/L	1	0.50	5	03/12/14	03/12/14 19:00	
Trichloroethene	EPA-524.2	ND	ug/L	1	0.50	5	03/12/14	03/12/14 19:00	
Trichlorofluoromethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,2,3-Trichloropropane	EPA-524.2	ND	ug/L	1	1.0		03/12/14	03/12/14 19:00	
1,1,2-Trichloro-1,2,2-trifluoroethane	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,2,4-Trimethylbenzene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,3,5-Trimethylbenzene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
Vinyl chloride	EPA-524.2	ND	ug/L	1	0.50	2	03/12/14	03/12/14 19:00	
Total Xylenes	EPA-524.2	ND	ug/L	1	1.0	10000	03/12/14	03/12/14 19:00	
Total Trihalomethanes	EPA-524.2	ND	ug/L	1	2.0	10	03/12/14	03/12/14 19:00	
t-Amyl Methyl ether	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
t-Butyl alcohol	EPA-524.2	ND	ug/L	1	10		03/12/14	03/12/14 19:00	
Ethyl t-butyl ether	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
p- & m-Xylenes	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
o-Xylene	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
1,2-Dichloroethane-d4 (Surrogate)	EPA-524.2	107	%	1	75 - 125 (LCL - UCL)		03/12/14	03/12/14 19:00	
Toluene-d8 (Surrogate)	EPA-524.2	97.4	%	1	80 - 120 (LCL - UCL)		03/12/14	03/12/14 19:00	
4-Bromofluorobenzene (Surrogate)	EPA-524.2	92.3	%	1	80 - 120 (LCL - UCL)		03/12/14	03/12/14 19:00	
Acenaphthylene	EPA-525.2	ND	ug/L	1	0.10		03/13/14	03/18/14 04:31	
Alachlor	EPA-525.2	ND	ug/L	1	0.20	2	03/13/14	03/18/14 04:31	
Anthracene	EPA-525.2	ND	ug/L	1	0.10		03/13/14	03/18/14 04:31	
Atraton	EPA-525.2	ND	ug/L	1	0.50		03/13/14	03/18/14 04:31	
Atrazine	EPA-525.2	ND	ug/L	1	0.30	3	03/13/14	03/18/14 04:31	
Benzo[a]anthracene	EPA-525.2	ND	ug/L	1	0.20		03/13/14	03/18/14 04:31	



Adobe Springs  
P.O. Box 1417  
Patterson, CA 95363

Reported: 04/04/2014 12:46  
Project: Title 21 Source  
Project Number: [none]  
Project Manager: Paul Mason

<b>BCL Sample ID:</b> 1405226-01	<b>Client Sample Name:</b> Adobe Springs, 3/6/2014 12:00:00AM, M.E.
----------------------------------	---

Constituent	Method	Result	Units	Dilution	PQL	BW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Organics</b>									
Benzo[b]fluoranthene	EPA-525.2	ND	ug/L	1	0.30		03/13/14	03/18/14 04:31	
Benzo[k]fluoranthene	EPA-525.2	ND	ug/L	1	0.30		03/13/14	03/18/14 04:31	
Benzo[a]pyrene	EPA-525.2	ND	ug/L	1	0.10	0.2	03/13/14	03/18/14 04:31	
Benzo[g,h,i]perylene	EPA-525.2	ND	ug/L	1	0.30		03/13/14	03/18/14 04:31	
Benzyl butyl phthalate	EPA-525.2	ND	ug/L	1	4.0		03/13/14	03/18/14 04:31	
delta-BHC	EPA-525.2	ND	ug/L	1	0.20		03/13/14	03/18/14 04:31	
gamma-BHC (Lindane)	EPA-525.2	ND	ug/L	1	0.10	0.2	03/13/14	03/18/14 04:31	
Bromacil	EPA-525.2	ND	ug/L	1	0.50		03/13/14	03/18/14 04:31	
Chrysene	EPA-525.2	ND	ug/L	1	0.30		03/13/14	03/18/14 04:31	
Diazinon	EPA-525.2	ND	ug/L	1	0.20		03/13/14	03/18/14 04:31	
Dibenzo[a,h]anthracene	EPA-525.2	ND	ug/L	1	0.30		03/13/14	03/18/14 04:31	
Di(2-ethylhexyl)adipate	EPA-525.2	ND	ug/L	1	1.0	400	03/13/14	03/18/14 04:31	
Dimethoate	EPA-525.2	ND	ug/L	1	2.0		03/13/14	03/18/14 04:31	
Dimethyl phthalate	EPA-525.2	ND	ug/L	1	1.0		03/13/14	03/18/14 04:31	
Di-n-butyl phthalate	EPA-525.2	ND	ug/L	1	1.0		03/13/14	03/18/14 04:31	
Fluorene	EPA-525.2	ND	ug/L	1	0.20		03/13/14	03/18/14 04:31	
Hexachlorobenzene	EPA-525.2	ND	ug/L	1	0.10	1	03/13/14	03/18/14 04:31	
Hexachlorocyclopentadiene	EPA-525.2	ND	ug/L	1	1.0	50	03/13/14	03/18/14 04:31	
Indeno[1,2,3-cd]pyrene	EPA-525.2	ND	ug/L	1	0.30		03/13/14	03/18/14 04:31	
Methoxychlor	EPA-525.2	ND	ug/L	1	0.30	40	03/13/14	03/18/14 04:31	
Metolachlor	EPA-525.2	ND	ug/L	1	0.50		03/13/14	03/18/14 04:31	
Metribuzin	EPA-525.2	ND	ug/L	1	0.50		03/13/14	03/18/14 04:31	
Molinate	EPA-525.2	ND	ug/L	1	0.50		03/13/14	03/18/14 04:31	
Phenanthrene	EPA-525.2	ND	ug/L	1	0.10		03/13/14	03/18/14 04:31	
Prometon	EPA-525.2	ND	ug/L	1	0.50		03/13/14	03/18/14 04:31	
Prometryn	EPA-525.2	ND	ug/L	1	0.50		03/13/14	03/18/14 04:31	
Pyrene	EPA-525.2	ND	ug/L	1	0.10		03/13/14	03/18/14 04:31	
Secbumeton	EPA-525.2	ND	ug/L	1	0.50		03/13/14	03/18/14 04:31	
Simazine	EPA-525.2	ND	ug/L	1	0.30	4	03/13/14	03/18/14 04:31	
Terbutryn	EPA-525.2	ND	ug/L	1	0.50		03/13/14	03/18/14 04:31	
Thiobencarb	EPA-525.2	ND	ug/L	1	0.50		03/13/14	03/18/14 04:31	
Perylene-d12 (Surrogate)	EPA-525.2	192	%	1	60 - 140 (LCL - UCL)		03/13/14	03/18/14 04:31	S09
Endothal	EPA-548.1	ND	ug/L	1	20	100	03/12/14	03/13/14 15:56	
Diquat	EPA-549.2	ND	ug/L	1	4.0	20	03/11/14	03/12/14 21:55	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



Adobe Springs  
P.O. Box 1417  
Patterson, CA 95363

Reported: 04/04/2014 12:46  
Project: Title 21 Source  
Project Number: [none]  
Project Manager: Paul Mason

<b>BCL Sample ID:</b> 1405226-01	<b>Client Sample Name:</b> Adobe Springs, 3/6/2014 12:00:00AM, M.E.
----------------------------------	---

Constituent	Method	Result	Units	Dilution	PQL	BW-MCL	Prep Date	Run Date/Time	Lab Quals
<b>Uncategorized</b>									
Decachlorobiphenyl (Surrogate)	EPA-508	77.2	%	1	50 - 130 (LCL - UCL)		03/13/14	03/18/14 12:30	
Pentachlorophenol	EPA-515.1	ND	ug/L	1	0.050		03/11/14	03/18/14 06:48	
Picloram	EPA-515.1	ND	ug/L	1	0.050		03/11/14	03/18/14 06:48	
Diisopropyl ether	EPA-524.2	ND	ug/L	1	0.50		03/12/14	03/12/14 19:00	
bis(2-Ethylhexyl)phthalate	EPA-525.2	ND	ug/L	1	3.0		03/13/14	03/18/14 04:31	
1,3-Dimethyl-2-nitrobenzene (Surrogate)	EPA-525.2	95.8	%	1	70 - 140 (LCL - UCL)		03/13/14	03/18/14 04:31	
Triphenylphosphate (Surrogate)	EPA-525.2	97.0	%	1	70 - 140 (LCL - UCL)		03/13/14	03/18/14 04:31	
Dibromoacetic acid	EPA-552.3	ND	ug/L	1	1.0		03/13/14	03/14/14 16:06	
Dichloroacetic acid	EPA-552.3	ND	ug/L	1	1.0		03/13/14	03/14/14 16:06	
Monobromoacetic acid	EPA-552.3	ND	ug/L	1	1.0		03/13/14	03/14/14 16:06	
Monochloroacetic acid	EPA-552.3	ND	ug/L	1	1.0		03/13/14	03/14/14 16:06	
Trichloroacetic acid	EPA-552.3	ND	ug/L	1	1.0		03/13/14	03/14/14 16:06	
Total HAA's (Summation)	EPA-552.3	ND	ug/L	1	1.0		03/13/14	03/14/14 16:06	
2,3-Dibromopropionic acid (Surrogate)	EPA-552.3	73.3	%	1	70 - 130 (LCL - UCL)		03/13/14	03/14/14 16:06	
<b>Total Recoverable Calcium</b>	<b>EPA-200.7</b>	<b>3.5</b>	<b>mg/L</b>	<b>1</b>	<b>0.10</b>		<b>03/17/14</b>	<b>03/18/14 16:33</b>	
<b>Total Recoverable Magnesium</b>	<b>EPA-200.7</b>	<b>110</b>	<b>mg/L</b>	<b>1</b>	<b>0.050</b>		<b>03/17/14</b>	<b>03/18/14 16:33</b>	
<b>Total Recoverable Sodium</b>	<b>EPA-200.7</b>	<b>4.8</b>	<b>mg/L</b>	<b>1</b>	<b>0.50</b>		<b>03/17/14</b>	<b>03/18/14 16:33</b>	
Total Recoverable Potassium	EPA-200.7	ND	mg/L	1	1.0		03/17/14	03/18/14 16:33	
<b>Total Dissolved Solids @ 180 C</b>	<b>SM-2540C</b>	<b>400</b>	<b>mg/L</b>	<b>2</b>	<b>20</b>		<b>03/12/14</b>	<b>03/12/14 11:30</b>	
<b>Color</b>	<b>SM-2120B</b>	<b>2.0</b>	<b>Color Units</b>	<b>1</b>	<b>1.0</b>		<b>03/07/14</b>	<b>03/07/14 16:10</b>	
Odor	SM-2150B	ND	Odor Units	1	1.0		03/07/14	03/07/14 16:10	
Chloramine as Cl2	SM-4500-C LF	ND	mg/L	1	0.10		03/08/14	03/08/14 09:00	S05
Residual Chlorine	SM-4500-C LF	ND	mg/L	1	0.10		03/08/14	03/08/14 09:00	S05
Chlorine dioxide	SM-4500-C IO2-B	ND	mg/L	1	0.10		03/08/14	03/08/14 09:00	S05
Total Cyanide	EPA-335.4	ND	mg/L	1	0.0050		03/11/14	03/11/14 15:19	
Total Recoverable Mercury	EPA-200.8	ND	mg/L	1	0.00020		03/07/14	03/11/14 16:01	



**BABCOCK Laboratories, Inc.**  
*The Standard of Excellence for Over 100 Years*

Client Name: BC Laboratories  
Contact: Vanessa Sandoval  
Address: 4100 Atlas Court  
Bakersfield, CA 93308

Analytical Report: Page 1 of 4  
Project Name: BC 1405226  
Project Number: 1405226

**Work Order Number: B4C1360**

Report Date: 01-Apr-2014

Received on Ice (Y/N): Yes Temp: 6 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

**Sample Identification**

<u>Lab Sample #</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>By</u>	<u>Date Submitted</u>	<u>By</u>
B4C1360-01	1405226-01	Water	03/06/14 00:00	Client	03/13/14 09:55	Courier (On Trac)

*mailing*  
P.O. Box 432  
Riverside, CA 92502-0432

*location*  
6100 Quail Valley Court  
Riverside, CA 92507-0704

P 951 653 3351  
F 951 653 1662  
www.babcocklabs.com

NELAP no. 02101CA  
CA Elap no. 2698  
EPA no. CA00102



**BABCOCK Laboratories, Inc.**  
*The Standard of Excellence for Over 100 Years*

Client Name: BC Laboratories  
Contact: Vanessa Sandoval  
Address: 4100 Atlas Court  
Bakersfield, CA 93308

Analytical Report: Page 2 of 4  
Project Name: BC 1405226  
Project Number: 1405226

Report Date: 01-Apr-2014

**Work Order Number: B4C1360**

Received on Ice (Y/N): Yes Temp: 6 °C

Laboratory Reference Number

**B4C1360-01**

<u>Sample Description</u>	<u>Matrix</u>	<u>Sampled Date/Time</u>	<u>Received Date/Time</u>
1405226-01	Water	03/06/14 00:00	03/13/14 9:55

<u>Analyte(s)</u>	<u>Result</u>	<u>RDL</u>	<u>MDL</u>	<u>Units</u>	<u>Method</u>	<u>Analysis Date</u>	<u>Analyst</u>	<u>Flag</u>
Aggregate Organic Compounds Phenols	ND	1.0	1.0	ug/L*	EPA 420.4	03/31/14 23:56	ara	

*mailing*  
P.O. Box 432  
Riverside, CA 92502-0432

*location*  
6100 Quail Valley Court  
Riverside, CA 92507-0704

P 951 653 3351  
F 951 653 1662  
www.babcocklabs.com

NELAP no. 02101CA  
CA Elap no. 2698  
EPA no. CA00102



**BABCOCK Laboratories, Inc.**  
*The Standard of Excellence for Over 100 Years*

Client Name: BC Laboratories  
Contact: Vanessa Sandoval  
Address: 4100 Atlas Court  
Bakersfield, CA 93308

Analytical Report: Page 3 of 4  
Project Name: BC 1405226  
Project Number: 1405226

Report Date: 01-Apr-2014

**Work Order Number: B4C1360**

Received on Ice (Y/N): Yes Temp: 6 °C

**Aggregate Organic Compounds - Batch Quality Control**

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
<b>Batch 14C3166 - Distillation</b>										
<b>Blank (14C3166-BLK1)</b> Prepared & Analyzed: 03/31/14										
Phenols	ND	1.0	1.0	ug/L*						
<b>LCS (14C3166-BS1)</b> Prepared & Analyzed: 03/31/14										
Phenols	11.0	1.0	1.0	ug/L*	10.0	110	80-120			
<b>LCS Dup (14C3166-BSD1)</b> Prepared & Analyzed: 03/31/14										
Phenols	11.0	1.0	1.0	ug/L*	10.0	110	80-120	0.432	200	
<b>Matrix Spike (14C3166-MS1)</b> Source: B4C2626-01 Prepared & Analyzed: 03/31/14										
Phenols	3.33	1.0	1.0	ug/L*	5.00	ND	66.5	80-120		QMout

*mailing*  
P.O. Box 432  
Riverside, CA 92502-0432

*location*  
6100 Quail Valley Court  
Riverside, CA 92507-0704

P 951 653 3351  
F 951 653 1662  
www.babcocklabs.com

NELAP no. 02101CA  
CA Elap no. 2698  
EPA no. CA00102



**BABCOCK Laboratories, Inc.**  
*The Standard of Excellence for Over 100 Years*

Client Name: BC Laboratories  
Contact: Vanessa Sandoval  
Address: 4100 Atlas Court  
Bakersfield, CA 93308

Analytical Report: Page 4 of 4  
Project Name: BC 1405226  
Project Number: 1405226

Report Date: 01-Apr-2014

**Work Order Number: B4C1360**

Received on Ice (Y/N): Yes Temp: 6 °C

**Notes and Definitions**

- QMout MS and/or MSD recovery did not meet laboratory acceptance criteria.
- ND: Analyte NOT DETECTED at or above the Method Detection Limit (**if MDL is reported**), otherwise at or above the Reportable Detection Limit (RDL)
- NR: Not Reported
- RDL: Reportable Detection Limit
- MDL: Method Detection Limit
- \* / '': NELAP does not offer accreditation for this analyte/method/matrix combination

**Approval**

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

Taylor Cariaga  
CN = Taylor Cariaga C = US O = Babcock Laboratories OU =  
Project Manager  
2014.04.01 16:48:39 -07'00'

cc:

*mailing*  
P.O. Box 432  
Riverside, CA 92502-0432

*location*  
6100 Quail Valley Court  
Riverside, CA 92507-0704

P 951 653 3351  
F 951 653 1662  
www.babcocklabs.com

e-Standard.rpt  
NELAP no. 02101CA  
CA Elap no. 2698  
EPA no. CA00102



**BABCOCK Laboratories, Inc.**  
*The Standard of Excellence for Over 100 Years*

Client Name: BC Laboratories  
Contact: Vanessa Sandoval  
Address: 4100 Atlas Court  
Bakersfield, CA 93308

Analytical Report: Page 1 of 1  
Project Name: BC 1405226  
Project Number: 1405226

**Work Order Number: B4C1360**

Report Date: 01-Apr-2014

Received on Ice (Y/N): Yes Temp: 6 °C

SUBCONTRACT ORDER			
BC Laboratories			
1405226			
<b>SENDING LABORATORY:</b>		<b>RECEIVING LABORATORY:</b>	
BC Laboratories 4100 Atlas Court Bakersfield, CA 93308 Phone: 661-327-4911 FAX: 661-327-1918 Project Manager: Vanessa Sandoval		Babcock Labs 6100 Quail Valley Court P.O. Box 432 Riverside, CA 92502 Phone: (951) 653-3351 FAX: (951) 653-3351	
		<b>BABLK</b>	
Analysis	Due	Expires	Comments
<b>Sample ID: 1405226-01</b>	<b>Water</b>	<b>Sampled: 03/06/14 00:00</b>	
SM 5530C - Phenols	03/20/14 17:00	04/03/14 00:00	
<i>Containers supplied:</i>			
<p><i>TSH (AB)</i></p> <p><del><i>TSH (AB)</i></del></p> <p><b>B4C1360 AB</b></p> <p><b>MAR 13 2014</b></p>			
<i>Released By</i>	<i>5/12/14</i>	<i>ONTIAC</i>	<i>3-13-14 955</i>
Released By	Date	Received By	Date
<i>Released By</i>	<i>5/12/14</i>	<i>3-13-14</i>	<i>955</i>
Released By	Date	Received By	Date

*mailing*  
P.O. Box 432  
Riverside, CA 92502-0432

*location*  
6100 Quail Valley Court  
Riverside, CA 92507-0704

P 951 653 3351  
F 951 653 1662  
www.babcocklabs.com

NELAP no. 02101CA  
CA Elap no. 2698  
EPA no. CA00102





Fresno Analytical Laboratory  
1414 Stanislaus St.  
Fresno, CA 93706  
559-497-2888 (Main)  
559-485-6935 (Fax)

**A4C0750**  
**3/18/2014**  
Invoice: A406662

Vanessa Sandoval  
BC Laboratories  
4100 Atlas Court  
Bakersfield, CA 93308

**RE: Report for A4C0750 General: Project Manager-Vanessa Sandoval**

Dear Vanessa Sandoval,

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 3/10/2014. 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,

Stephane Maupas, Project Manager

If additional clarification of any information is required, please contact your Project Manager, Stephane Maupas, at (800) 877-8310 or (559) 497-2888 x212.



Accredited in Accordance with NELAP  
ORELAP #4021

A4C0750 FINAL 03182014 1749  
Printed: 03/18/2014  
QA-RP-0001-04

[www.BSKAssociates.com](http://www.BSKAssociates.com)

Page 1 of 11



**A4C0750**

**General: Project Manager-Vanessa Sandoval**

**Case Narrative**

**Project and Report Details Invoice Details**

**Client:** BC Laboratories  
**Report To:** Vanessa Sandoval  
**Project #:** 1405226  
**Received:** 3/10/2014 - 15:28  
**Report Due:** 3/24/2014

**Invoice To:** BC Laboratories  
**Invoice Attn:** Vanessa Sandoval  
**Project PO#:** -

**Sample Receipt Conditions**

**Cooler:** Default Cooler  
**Temperature on Receipt °C:** 5.3

Containers Intact  
COC/Labels Agree  
Preservation Confirmed  
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:

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
Vanessa sandoval	Final.rpt



A4C0750

General: Project Manager-Vanessa Sandoval

1405226

Certificate of Analysis

Sample ID: A4C0750-01
Sampled By: Client
Sample Description: 1405226-01

Sample Date - Time: 03/06/14 - 00:00
Matrix: Water
Sample Type: Grab

General Chemistry

Table with 10 columns: Analyte, Method, Result, RL, Units, RL Mult, Batch, Prepared, Analyzed, Qual. Rows include Bromate, Chlorite, and Surrogate: Dichloroacetate.

Radiological

Table with 8 columns: Analyte, Method, Result, Units, Batch, Prepared, Analyzed, Qual. Rows include Gross Alpha, 1.65 Sigma Uncertainty, and MDA95.

Organics

Table with 10 columns: Analyte, Method, Result, RL, Units, RL Mult, Batch, Prepared, Analyzed, Qual. Includes sub-sections for Carbamates by HPLC and Glyphosate by HPLC.

A4C0750 FINAL 03182014 1749
Printed: 03/18/2014
QA-RP-0001-04

www.BSKAssociates.com

Page 3 of 11



A4C0750

General: Project Manager-Vanessa Sandoval

General Chemistry Quality Control Report

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

EPA 300.1 - Quality Control

Batch: A402966

Prepared: 03/11/2014

Prep Method: Method Specific Preparation

Analyst: TRL

Blank (A402966-BLK1)

Chlorite	ND	0.0050	mg/L							03/11/14	
Surrogate: Dichloroacetate	0.529			0.50		106	90-115			03/11/14	

Blank Spike (A402966-BS1)

Chlorite	0.21	0.0050	mg/L	0.20		107	85-115			03/11/14	
Surrogate: Dichloroacetate	0.538			0.50		108	90-115			03/11/14	

Blank Spike Dup (A402966-BSD1)

Chlorite	0.22	0.0050	mg/L	0.20		108	85-115	1	10	03/11/14	
Surrogate: Dichloroacetate	0.536			0.50		107	90-115			03/11/14	

Matrix Spike (A402966-MS1), Source: A4C0758-03

Chlorite	1.0	0.050	mg/L	1.0	ND	100	75-125			03/11/14	
Surrogate: Dichloroacetate	5.22			5.0		104	90-115			03/11/14	

Matrix Spike Dup (A402966-MSD1), Source: A4C0758-03

Chlorite	1.0	0.050	mg/L	1.0	ND	100	75-125	1	10	03/11/14	
Surrogate: Dichloroacetate	5.27			5.0		105	90-115			03/11/14	

EPA 317.0 - Quality Control

Batch: A403221

Prepared: 03/17/2014

Prep Method: Method Specific Preparation

Analyst: RCN

Blank (A403221-BLK1)

Bromate	ND	0.0010	mg/L							03/17/14	
---------	----	--------	------	--	--	--	--	--	--	----------	--

Blank Spike (A403221-BS1)

Bromate	0.010	0.0010	mg/L	0.010		102	85-115			03/17/14	
---------	-------	--------	------	-------	--	-----	--------	--	--	----------	--

Blank Spike Dup (A403221-BSD1)

Bromate	0.0097	0.0010	mg/L	0.010		97	85-115	5	10	03/17/14	
---------	--------	--------	------	-------	--	----	--------	---	----	----------	--

Matrix Spike (A403221-MS1), Source: A4C0765-03

Bromate	0.0099	0.0010	mg/L	0.010	ND	99	75-125			03/17/14	
---------	--------	--------	------	-------	----	----	--------	--	--	----------	--

Matrix Spike Dup (A403221-MSD1), Source: A4C0765-03

Bromate	0.0098	0.0010	mg/L	0.010	ND	98	75-125	1	10	03/17/14	
---------	--------	--------	------	-------	----	----	--------	---	----	----------	--

A4C0750 FINAL 03182014 1749

Printed: 03/18/2014

QA-RP-0001-04

www.BSKAssociates.com

Page 4 of 11



A4C0750

General: Project Manager-Vanessa Sandoval

Organics Quality Control Report

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

EPA 531.1 - Quality Control

Batch: A402923

Prepared: 03/10/2014

Prep Method: EPA 531.1

Analyst: AAR

Blank (A402923-BLK1)

3-Hydroxycarbofuran	ND	2.0	ug/L							03/11/14	
Aldicarb	ND	2.0	ug/L							03/11/14	
Aldicarb Sulfone	ND	2.0	ug/L							03/11/14	
Aldicarb Sulfoxide	ND	2.0	ug/L							03/11/14	
Carbaryl	ND	2.0	ug/L							03/11/14	
Carbofuran	ND	2.0	ug/L							03/11/14	
Methomyl	ND	2.0	ug/L							03/11/14	
Oxamyl	ND	2.0	ug/L							03/11/14	

Blank Spike (A402923-BS1)

3-Hydroxycarbofuran	3.7	2.0	ug/L	4.0		94	80-120			03/11/14	
Aldicarb	3.6	2.0	ug/L	4.0		90	80-120			03/11/14	
Aldicarb Sulfone	3.8	2.0	ug/L	4.0		95	80-120			03/11/14	
Aldicarb Sulfoxide	3.7	2.0	ug/L	4.0		94	80-120			03/11/14	
Carbaryl	3.8	2.0	ug/L	4.0		95	80-120			03/11/14	
Carbofuran	3.8	2.0	ug/L	4.0		95	80-120			03/11/14	
Methomyl	3.8	2.0	ug/L	4.0		96	80-120			03/11/14	
Oxamyl	3.8	2.0	ug/L	4.0		95	80-120			03/11/14	

Blank Spike Dup (A402923-BSD1)

3-Hydroxycarbofuran	4.2	2.0	ug/L	4.0		105	80-120	11	20	03/11/14	
Aldicarb	4.1	2.0	ug/L	4.0		102	80-120	13	20	03/11/14	
Aldicarb Sulfone	4.3	2.0	ug/L	4.0		107	80-120	11	20	03/11/14	
Aldicarb Sulfoxide	4.3	2.0	ug/L	4.0		108	80-120	15	20	03/11/14	
Carbaryl	4.4	2.0	ug/L	4.0		109	80-120	14	20	03/11/14	
Carbofuran	4.4	2.0	ug/L	4.0		110	80-120	15	20	03/11/14	
Methomyl	4.3	2.0	ug/L	4.0		106	80-120	10	20	03/11/14	
Oxamyl	4.2	2.0	ug/L	4.0		106	80-120	11	20	03/11/14	

Matrix Spike (A402923-MS1), Source: A4C0610-04

3-Hydroxycarbofuran	3.8	2.0	ug/L	4.0	ND	95	65-135			03/11/14	
Aldicarb	3.5	2.0	ug/L	4.0	ND	88	65-135			03/11/14	
Aldicarb Sulfone	3.8	2.0	ug/L	4.0	ND	94	65-135			03/11/14	
Aldicarb Sulfoxide	3.7	2.0	ug/L	4.0	ND	93	65-135			03/11/14	
Carbaryl	3.8	2.0	ug/L	4.0	ND	94	65-135			03/11/14	
Carbofuran	3.7	2.0	ug/L	4.0	ND	93	65-135			03/11/14	
Methomyl	3.7	2.0	ug/L	4.0	ND	93	65-135			03/11/14	
Oxamyl	3.7	2.0	ug/L	4.0	ND	94	65-135			03/11/14	

EPA 547 - Quality Control

Batch: A403001

Prepared: 03/12/2014

Prep Method: EPA 547

Analyst: RJB

Blank (A403001-BLK1)

Glyphosate	ND	25	ug/L							03/13/14	
Surrogate: AMPA	120			100		115	70-130			03/13/14	

A4C0750 FINAL 03182014 1749

Printed: 03/18/2014

QA-RP-0001-04

www.BSKAssociates.com

Page 5 of 11



A4C0750

General: Project Manager-Vanessa Sandoval

Organics Quality Control Report

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

EPA 547 - Quality Control

Batch: A403001

Prepared: 03/12/2014

Prep Method: EPA 547

Analyst: RJB

Blank Spike (A403001-BS1)

Glyphosate	120	25	ug/L	100		118	70-130			03/13/14	
Surrogate: AMPA	110			100		108	70-130			03/13/14	

Blank Spike Dup (A403001-BSD1)

Glyphosate	110	25	ug/L	100		109	70-130	8	30	03/13/14	
Surrogate: AMPA	110			100		105	70-130			03/13/14	

Matrix Spike (A403001-MS1), Source: A4C0750-01

Glyphosate	130	25	ug/L	100	ND	125	70-130			03/13/14	
Surrogate: AMPA	100			100		101	70-130			03/13/14	

Matrix Spike Dup (A403001-MSD1), Source: A4C0750-01

Glyphosate	120	25	ug/L	100	ND	114	70-130	9	30	03/13/14	
Surrogate: AMPA	110			100		109	70-130			03/13/14	

A4C0750 FINAL 03182014 1749

Printed: 03/18/2014

QA-RP-0001-04

www.BSKAssociates.com

Page 6 of 11



A4C0750

General: Project Manager-Vanessa Sandoval

Radiological Quality Control Report

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

EPA 00-02 - Quality Control

Batch: A403011

Prepared: 03/12/2014

Prep Method: EPA 00-02

Analyst: SAB

Blank (A403011-BLK1)

1.65 Sigma Uncertainty	ND		±							03/13/14	
Gross Alpha	ND	3	pCi/L							03/13/14	
MDA95	ND	0.00	pCi/L							03/13/14	

Blank Spike (A403011-BS1)

Gross Alpha	33.7	3	pCi/L	30		112	80-120			03/13/14	
-------------	------	---	-------	----	--	-----	--------	--	--	----------	--

Blank Spike Dup (A403011-BSD1)

Gross Alpha	35.6	3	pCi/L	30		119	80-120	6	50	03/13/14	
-------------	------	---	-------	----	--	-----	--------	---	----	----------	--

Matrix Spike (A403011-MS1), Source: A4C0224-08

Gross Alpha	508	3	pCi/L	120	428	67	70-130			03/13/14	MS1.0 Low
-------------	-----	---	-------	-----	-----	----	--------	--	--	----------	-----------

Matrix Spike (A403011-MS2), Source: A4C0537-02

Gross Alpha	62.9	3	pCi/L	120	ND	52	70-130			03/13/14	MS1.0 Low
-------------	------	---	-------	-----	----	----	--------	--	--	----------	-----------

Matrix Spike Dup (A403011-MSD1), Source: A4C0224-08

Gross Alpha	504	3	pCi/L	120	428	64	70-130	1	50	03/13/14	MS1.0 Low
-------------	-----	---	-------	-----	-----	----	--------	---	----	----------	-----------

Matrix Spike Dup (A403011-MSD2), Source: A4C0537-02

Gross Alpha	75.1	3	pCi/L	120	ND	62	70-130	18	50	03/13/14	MS1.0 Low
-------------	------	---	-------	-----	----	----	--------	----	----	----------	-----------

A4C0750 FINAL 03182014 1749

Printed: 03/18/2014

QA-RP-0001-04

www.BSKAssociates.com

Page 7 of 11



**A4C0750**

*General: Project Manager-Vanessa Sandoval*

**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:**

1.65 Sigma Uncertainty	Gross Alpha	MDA95
------------------------	-------------	-------

A4C0750 FINAL 03182014 1749

Printed: 03/18/2014

QA-RP-0001-04

[www.BSKAssociates.com](http://www.BSKAssociates.com)

Page 8 of 11





A4C0750



**BC Laboratories**

**BCLab4911**



**03102014**

Turnaround: Standard  
Due Date: 3/24/2014

Printed: 3/10/2014 5:45:36PM

Page 1 of 1

Page 9 of 11



SUBCONTRACT ORDER  
BC Laboratories  
1405226

A4C0750  
BCLab4911  
03/10/2014  
10



5.3

SENDING LABORATORY:

BC Laboratories  
4100 Atlas Court  
Bakersfield, CA 93308  
Phone: 661-327-4911  
FAX: 661-327-1918  
Project Manager: Vanessa Sandoval

RECEIVING LABORATORY:

BSK Analytical Labs  
1414 Stanislaus Street  
Fresno, CA 93706  
Phone: (800) 877-8310  
FAX: (559) 485-6935

BSKSA

Analysis	Due	Expires	Comments
<b>Sample ID: 1405226-01</b>	<b>Water</b>	<b>Sampled: 03/06/14 00:00</b>	
EPA 531.1 - Carbamate & Urea Pesticides	03/20/14 17:00	04/03/14 00:00	
EPA 547 - Glyphosate	03/20/14 17:00	03/20/14 00:00	
EPA 300.0 - Bromate	03/20/14 17:00	04/03/14 00:00	
EPA 300.1 - Chlorite	03/20/14 17:00	03/20/14 00:00	
EPA 900.0 Gross Alpha	03/20/14 17:00	09/03/14 00:00	
Containers supplied:			

Released By: *[Signature]* Date: 3/10/14  
 Received By: *[Signature]* Date: 3-10-14  
 Released By: *[Signature]* Date: 3-10-14  
 Received By: *[Signature]* Date: 3-10-14 1528  
 PMS/wet/BW Page 1 of 1

BSKSA



BSK Associates SR-FL-0002-09

A4C0750  
BCLab4911

03/10/2014  
10



### 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?		Yes	No	NA	Were there bubbles in the VOA vials? (Volatiles Only)			
			Yes	No	NA	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
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?	1					
	Bactl $\text{Na}_2\text{S}_2\text{O}_3$	—	—	IB					
	None (P) <sup>White Cap</sup>	—	—	IB					
	Cr6 Buffer (P) <sup>Blue Cap</sup>	pH 9-9.5	Y	N					
	$\text{HNO}_3$ (P) <sup>Red Cap</sup>	—	—	2C					
	$\text{H}_2\text{SO}_4$ (P) <sup>Yellow Cap</sup>	pH $\leq 2$	Y	N					
	$\text{NaOH}$ (P) <sup>Green Cap</sup>	Cl, pH $\geq 12$	Y	N					
	$\text{NaOH} + \text{ZnAc}$ (P)	pH $\geq 9$	Y	N			3-10-14		
	Dissolved Oxygen 300ml (g)	—	—						
	None (AG) 608/8081/8082, 525, 532/8321, 8151, 8270	—	—	IA			12		
	$\text{H}_2\text{SO}_4$ (AG) <sup>Yellow Label</sup> 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) <sup>Blue Label</sup> 547, 515, 525, 548	—	—						
	$\text{Na}_2\text{S}_2\text{O}_3$ (AG) <sup>Blue Label</sup> THMs-524.2 or 524.3	—	—						
	$\text{Na}_2\text{S}_2\text{O}_3$ (CG) <sup>Blue Label</sup> 504, 505	—	—	IV					
	$\text{Na}_2\text{S}_2\text{O}_3 + \text{MCAA}$ (CG) <sup>Orange Label</sup> 531	pH = 3	Y	N	IV				
	$\text{NH}_4\text{Cl}$ (AG) <sup>Purple Label</sup> 552	—	—						
	EDA (AG) <sup>Brown Label</sup> DBPs	—	—						
	Ascorbic + Maleic (AG) <sup>Lt Green Label</sup> 524.3	—	—						
	HCL (CG) 524.2, BTEX, Gas, MTBE, 8260/624	—	—						
	Buffer pH 4 (CG)	—	—						
	None (CG)	—	—						
	$\text{H}_3\text{PO}_4$ (CG) <sup>Salmon Label</sup>	—	—						
	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) <b>350 Ag</b>	EDA	3/10/14 17:00 JH	S P					
Comments	S P <b>NPSE</b>								

Labeled by: JH @ 17:01

Labels checked by: JP @ 17:03

RUSH Paged by: Page 11 of 11



March 27, 2014

**FAL Project ID: 8359**

Ms. Vanessa Sandoval  
BC Laboratories  
4100 Atlas Court  
Bakersfield, CA 93308

Dear Ms. Sandoval,

Attached are the results for Frontier Analytical Laboratory project **8359**. This corresponds to your subcontract order number **1405226**. One aqueous sample was received on 3/11/2014. This sample was extracted and analyzed by EPA Method 1613 for 2,3,7,8-TCDD only. BC Laboratories requested a turnaround time of fifteen business days for project **8359**.

The following report consists of an Analytical Data section and a Sample Receipt section. The Analytical Data section contains our project-sample tracking log and the analytical results. The Sample Receipt section contains your chain of custody, our sample login form and sample photo. The attached results are specifically for the sample referenced in this report only. These results meet all National Environmental Laboratory Accreditation Program (NELAP) requirements and shall not be reproduced except in full. Frontier Analytical Laboratory's State of California NELAP certificate number is **02113CA**. This report has been emailed to you as a PDF file. A hardcopy will not be sent to you unless specifically requested.

If you have any questions regarding project **8359**, please contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

Sincerely,

Thomas C. Crabtree  
Director

**FRONTIER ANALYTICAL LABORATORY**  
5172 Hillisdale Circle \* El Dorado Hills, CA 95762  
Tel (916) 934-0900 \* Fax (916) 934-0999  
www.frontieranalytical.com

000001 of 000008



Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: 8359

Received on: 03/11/2014

Project Due: 04/02/2014

Storage: R2

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
8359-001-SA	1	1405226	1405226-01	EPA 1613 TCDD	Aqueous	03/06/2014	NP	03/06/2015

000002 of 000008

5172 Hillside Circle \* El Dorado Hills, CA 95762 \* Tel (916) 934-0900 \* Fax (916) 934-0999 \* www.frontieranalytical.com



EPA Method 1613  
TCDD



FAL ID: 8359-001-MB  
Client ID: Method Blank  
Matrix: Aqueous  
Batch No: X3054

Date Extracted: 03-24-2014  
Date Received: NA  
Amount: 1.000 L

ICal: PCDDFAL3-11-7-13  
GC Column: DB5  
Units: pg/L


Acquired: 03-25-2014  
WHO TEQ: NA


Compound	Conc	DL	Qual	MDL
2,3,7,8-TCDD	ND	0.959		0.155

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	82.2	31.0 - 137	

Cleanup Surrogate	% Rec	QC Limits	Qual
37Cl-2,3,7,8-TCDD	88.0	42.0 - 164	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Chemical Interference
- D Presence of Diphenyl Ethers
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Analyst:   
Date: 3/26/2014

Reviewed By:   
Date: 3/27/2014

000003 of 000008

5172 Hillside Circle \* El Dorado Hills, CA 95762 \* Tel (916) 934-0900 \* Fax (916) 934-0999 \* www.frontieranalytical.com



EPA Method 1613  
TCDD



FAL ID: 8359-001-OPR  
Client ID: OPR  
Matrix: Aqueous  
Batch No: X3054


Date Extracted: 03-24-2014  
Date Received: NA  
Amount: 1.000 L


ICal: PCDDFAL3-11-7-13  
GC Column: DB5  
Units: ng/ml

Acquired: 03-25-2014  
WHO TEQ: NA

Compound	Conc	QC Limits
2,3,7,8-TCDD	11.6	7.30 - 14.6
Internal Standards	% Rec	QC Limits
13C-2,3,7,8-TCDD	93.5	25.0 - 141
Cleanup Surrogate		
37Cl-2,3,7,8-TCDD	108	37.0 - 158

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Chemical Interference
- D Presence of Diphenyl Ethers
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Analyst:   
Date: 3/26/2014

Reviewed By:   
Date: 3/27/2014

000004 of 000008

5172 Hillside Circle \* El Dorado Hills, CA 95762 \* Tel (916) 934-0900 \* Fax (916) 934-0999 \* www.frontieranalytical.com



EPA Method 1613  
TCDD



FAL ID: 8359-001-SA  
Client ID: 1405226-01  
Matrix: Aqueous  
Batch No: X3054

Date Extracted: 03-24-2014  
Date Received: 03-11-2014  
Amount: 0.967 L

ICal: PCDDFAL3-11-7-13  
GC Column: DB5  
Units: pg/L


Acquired: 03-25-2014  
WHO TEQ: NA


Compound	Conc	DL	Qual	MDL
2,3,7,8-TCDD	ND	1.13		0.155

Internal Standards	% Rec	QC Limits	Qual
13C-2,3,7,8-TCDD	80.3	31.0 - 137	

Cleanup Surrogate	% Rec	QC Limits	Qual
37Cl-2,3,7,8-TCDD	90.6	42.0 - 164	

- A Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
- B Analyte is present in Method Blank
- C Chemical Interference
- D Presence of Diphenyl Ethers
- E Analyte concentration is above calibration range
- F Analyte confirmation on secondary column
- J Analyte concentration is below calibration range
- M Maximum possible concentration
- ND Analyte Not Detected at Detection Limit Level
- NP Not Provided
- P Pre-filtered through a Whatman 0.7um GF/F filter
- S Sample acceptance criteria not met
- X Matrix interferences
- \* Result taken from dilution or reinjection

Analyst:   
Date: 3/26/2014

Reviewed By:   
Date: 3/27/2014

000005 of 000008

5172 Hillside Circle \* El Dorado Hills, CA 95762 \* Tel (916) 934-0900 \* Fax (916) 934-0999 \* www.frontieranalytical.com





**SUBCONTRACT ORDER**

**BC Laboratories**

**1405226**

**SENDING LABORATORY:**

BC Laboratories  
4100 Atlas Court  
Bakersfield, CA 93308  
Phone: 661-327-4911  
FAX: 661-327-1918  
Project Manager: Vanessa Sandoval

*8359  
10c*

**RECEIVING LABORATORY:**

Frontier Analytical Laboratory  
5172 Hillside Circle  
El Dorado Hills, CA 95762  
Phone: (916) 934-0900  
FAX: (916) 934-0999

**FRNTL**

Analysis	Due	Expires	Comments
----------	-----	---------	----------

<b>Sample ID: 1405226-01</b>	<b>Water</b>	<b>Sampled: 03/06/14 00:00</b>	
EPA 1613B - 2,3,7,8-TCDD	03/20/14 17:00	03/05/15 00:00	
<i>Containers supplied:</i>			

*[Signature]* 3/10/14

Released By \_\_\_\_\_ Date \_\_\_\_\_

*Keller* 3/10

Received By \_\_\_\_\_ Date \_\_\_\_\_

3-11-14 1110

Released By \_\_\_\_\_ Date \_\_\_\_\_

Received By \_\_\_\_\_ Date \_\_\_\_\_

000006 of 000008

FRNTL

Page 1 of 1



Frontier Analytical Laboratory

Sample Login Form

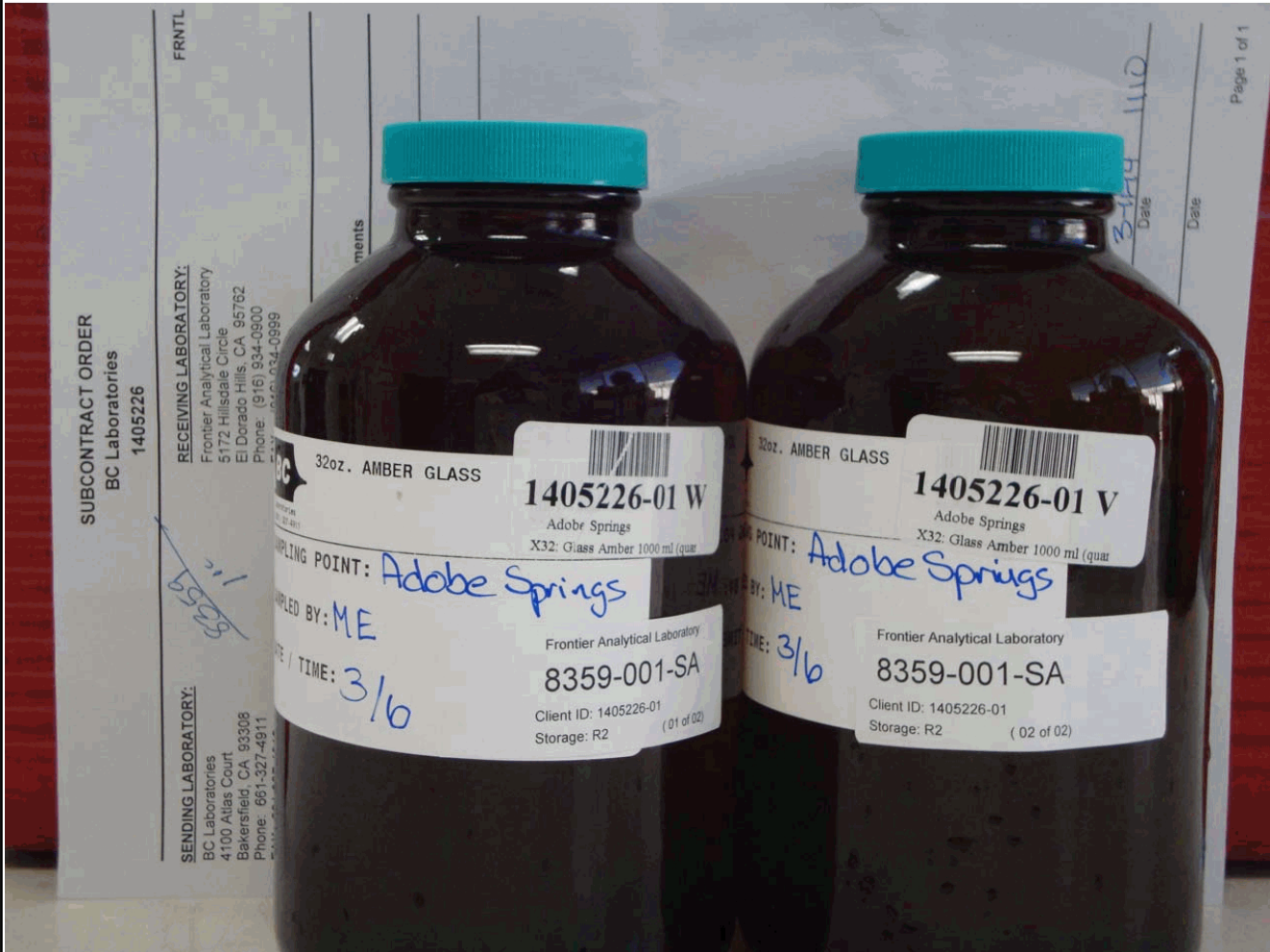
FAL Project ID: 8359

Client:	BC Laboratories, Inc
Client Project ID:	1405226
Date Received:	03/11/2014
Time Received:	11:10 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	1
Duplicates:	1
Storage Location:	R2

Method of Delivery:	California Overnight
Tracking Number:	C11235900080786
Shipping Container Received Intact	Yes
Custody seals(s) present?	No
Custody seals(s) intact?	No
Sample Arrival Temperature (C)	1
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test aqueous sample for residual Chlorine	Yes
Sodium Thiosulfate Added	No
Adequate Sample Volume	Yes
Appropriate Sample Container	Yes
pH Range of Aqueous Sample	Between 4 and 9
Anomalies or additional comments:	

000007 of 000008

5172 Hillisdale Circle \* El Dorado Hills, CA 95762 \* Tel (916) 934-0900 \* Fax (916) 934-0999 \* www.frontieranalytical.com



SUBCONTRACT ORDER  
BC Laboratories  
1405226

RECEIVING LABORATORY:  
Frontier Analytical Laboratory  
5172 Hillside Circle  
El Dorado Hills, CA 95762  
Phone: (916) 934-0900  
Fax: (916) 934-0999

SENDING LABORATORY:  
BC Laboratories  
4100 Atlas Court  
Bakersfield, CA 93308  
Phone: 661-327-4911

000008 of 000008

5172 Hillside Circle \* El Dorado Hills, CA 95762 \* Tel (916) 934-0900 \* Fax (916) 934-0999 \* www.frontieranalytical.com



Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

April 04, 2014

Ms. Vanessa Sandoval  
BC Laboratories  
4100 Atlas Ct.  
Bakersfield, CA 93308

RE: Project: 1405226  
Pace Project No.: 30115511

Dear Ms. Sandoval:

Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 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,

Carin Ferris  
carin.ferris@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..



Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

**CERTIFICATIONS**

Project: 1405226  
Pace Project No.: 30115511

**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**

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..



Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

**SAMPLE SUMMARY**

Project: 1405226  
Pace Project No.: 30115511

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30115511001	1405226-01	Drinking Water	03/06/14 00:00	03/14/14 09:30

**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.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

**SAMPLE ANALYTE COUNT**

Project: 1405226  
Pace Project No.: 30115511

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30115511001	1405226-01	EPA 904.0	MAW	1

**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.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

**PROJECT NARRATIVE**

Project: 1405226  
Pace Project No.: 30115511

**Method:** EPA 904.0  
**Description:** 904.0 Radium 228  
**Client:** BC Laboratories  
**Date:** April 04, 2014

**General Information:**

1 sample was analyzed for EPA 904.0. 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**

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..





Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

**ANALYTICAL RESULTS**

Project: 1405226  
Pace Project No.: 30115511

Sample: 1405226-01 Lab ID: 30115511001 Collected: 03/06/14 00:00 Received: 03/14/14 09:30 Matrix: Drinking Water  
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-228	EPA 904.0	-0.0144 ± 0.233 (0.548) C:87% T:96%	pCi/L	04/03/14 10:08	15262-20-1	

**REPORT OF LABORATORY ANALYSIS**

Date: 04/04/2014 02:53 PM

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

Page 6 of 11



Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

**QUALITY CONTROL DATA**

Project: 1405226  
Pace Project No.: 30115511

QC Batch: RADC/19004 Analysis Method: EPA 904.0  
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228  
Associated Lab Samples: 30115511001

METHOD BLANK: 702227 Matrix: Water  
Associated Lab Samples: 30115511001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0251 ± 0.238 (0.566) C:86% T:90%	pCi/L	04/03/14 10:07	

**REPORT OF LABORATORY ANALYSIS**

Date: 04/04/2014 02:53 PM

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

Page 7 of 11



Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

**QUALIFIERS**

Project: 1405226  
Pace Project No.: 30115511

**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: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).  
Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)  
(MDC) - Minimum Detectable Concentration  
Trac - Tracer Recovery (%)  
Carr - Carrier Recovery (%)  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

**REPORT OF LABORATORY ANALYSIS**

Date: 04/04/2014 02:53 PM

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..

Page 8 of 11



**SUBCONTRACT ORDER**  
**BC Laboratories**  
**1405226**

**SENDING LABORATORY:**

BC Laboratories  
4100 Atlas Court  
Bakersfield, CA 93308  
Phone: 661-327-4911  
FAX: 661-327-1918  
Project Manager: Vanessa Sandoval

**RECEIVING LABORATORY:**

PACE Analytical  
1638 Roseytown Road, Ste 2,3 &4  
Greensburg, PA 15601  
Phone: (724) 850-5600  
FAX: (724) 850-5601

**PACEA**

Analysis	Due	Expires	Comments
Sample ID: 1405226-01	Water	Sampled: 03/06/14 00:00	3015511 001
EPA 904.0 Radium 228	03/20/14 17:00	09/03/14 00:00	
Containers supplied:			

Released By *[Signature]* Date 3/10/14 Received By *[Signature]* Date 3-14-14 09:30  
 Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_  
**PACEA** Page 9 of 11  
Page 1 of 1



Sample Condition Upon Receipt



Client Name: BC Labs

Project # 30115511

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other

Tracking #: 1Z965376036324

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

Thermometer Used 6 7 8

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: SRA 3-14-14

Temp should be above freezing to 6°C

Comments:

Table with 16 rows of custody and sample condition checks, including Chain of Custody Present, Filled Out, Relinquished, etc.

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review:

Handwritten signature: Camp Services

Date:

Handwritten date: 3/17/14

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)





Adobe Springs  
P.O. Box 1417  
Patterson, CA 95363

**Reported:** 04/04/2014 12:46  
**Project:** Title 21 Source  
**Project Number:** [none]  
**Project Manager:** Paul Mason

**Notes And Definitions**

- MDL Method Detection Limit
  - ND Analyte Not Detected at or above the reporting limit
  - PQL Practical Quantitation Limit
  - S05 The sample holding time was exceeded.
  - S09 The surrogate recovery on the sample for this compound was not within the control limits.
  - V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.
- BW-MCL = MCLs for Title 21 Bottled Water