

### **ATTACHMENT 3: LABORATORY ANALYTICAL REPORTS**

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This attachment contains the laboratory analytical reports prepared by BC Laboratories, Inc., of Bakersfield, California.



Date of Report: 11/06/2013

David Conner

Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Project: JPL- GW Monitoring Wells  
BC Work Order: 1322918  
Invoice ID: B159329

Enclosed are the results of analyses for samples received by the laboratory on 10/21/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



# Table of Contents

## Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	8

## Sample Results

<b>1322918-01 - TB-1-10/21/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	13
Volatile Organic Analysis (EPA Method 524.2) TICs.....	16
<b>1322918-02 - SB-1-10/21/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	17
Volatile Organic Analysis (EPA Method 524.2) TICs.....	20
Water Analysis (General Chemistry).....	21
Metals Analysis.....	22
<b>1322918-03 - EB-1-10/21/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	23
Volatile Organic Analysis (EPA Method 524.2) TICs.....	26
Water Analysis (General Chemistry).....	27
Metals Analysis.....	28
<b>1322918-04 - MW-12-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	29
Volatile Organic Analysis (EPA Method 524.2) TICs.....	32
Water Analysis (General Chemistry).....	33
Metals Analysis.....	34
<b>1322918-05 - MW-12-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	35
Volatile Organic Analysis (EPA Method 524.2) TICs.....	38
Water Analysis (General Chemistry).....	39
Metals Analysis.....	40
<b>1322918-06 - MW-12-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	41
Volatile Organic Analysis (EPA Method 524.2) TICs.....	44
Water Analysis (General Chemistry).....	45
Metals Analysis.....	46
<b>1322918-07 - MW-12-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	47
Volatile Organic Analysis (EPA Method 524.2) TICs.....	50
Water Analysis (General Chemistry).....	51
Metals Analysis.....	52
<b>1322918-08 - MW-12-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	53
Volatile Organic Analysis (EPA Method 524.2) TICs.....	56
Water Analysis (General Chemistry).....	57
Metals Analysis.....	58
<b>1322918-09 - MW-4-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	59
Volatile Organic Analysis (EPA Method 524.2) TICs.....	62
Water Analysis (General Chemistry).....	63
Metals Analysis.....	64
<b>1322918-10 - MW-4-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	65
Volatile Organic Analysis (EPA Method 524.2) TICs.....	68
Water Analysis (General Chemistry).....	69
Metals Analysis.....	70
<b>1322918-11 - MW-4-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	71

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## Table of Contents

Volatile Organic Analysis (EPA Method 524.2) TICs.....	74
Water Analysis (General Chemistry).....	75
Metals Analysis.....	76
<b>1322918-12 - MW-4-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	77
Volatile Organic Analysis (EPA Method 524.2) TICs.....	80
Water Analysis (General Chemistry).....	81
Metals Analysis.....	82
<b>1322918-13 - MW-4-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	83
Volatile Organic Analysis (EPA Method 524.2) TICs.....	86
Water Analysis (General Chemistry).....	87
Metals Analysis.....	88
<b>Quality Control Reports</b>	
<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	89
Laboratory Control Sample.....	92
Precision and Accuracy.....	93
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	94
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	95
Laboratory Control Sample.....	96
Precision and Accuracy.....	97
<b>Metals Analysis</b>	
Method Blank Analysis.....	98
Laboratory Control Sample.....	99
Precision and Accuracy.....	100
<b>Notes</b>	
Notes and Definitions.....	101



Chain of Custody Form

Page 1 of 2

Report To: Battelle MHTS  
 Client: David Conner  
 Attn: David Conner  
 Street Address: 505 King Ave.  
 City: Columbus State: OH Zip: 43201  
 Phone: (614) 424-5489 Fax: (614) 458-5489  
 Email Address: connerd@battelle.org  
 Submission #: 1322918

Project Description: JPL-GW Monitoring  
 Project Code: 1013  
 Sampler(s): Blaine Tech

Sample #	Sample Description	Date	Time	Matrix*
-1	TB-1-10/21/13	10/21/13	0700	AQ
-2	SB-1-10/21/13	10/21/13	0730	
-3	EB-1-10/21/13	10/21/13	0830	
-4	MW-12-5	10/21/13	0900	
-5	MW-12-4	10/21/13	0935	
-6	MW-12-3	10/21/13	1010	
-7	MW-12-2	10/21/13	1040	
-8	MW-12-1	10/21/13	1200	
-9	MW-4-5	10/21/13	1240	
-10	MW-4-4	10/21/13	1310	✓
-11	MW-4-3	10/21/13	1310	✓

Analysis Requested:  
 Total Chromium 200.8 (ug/L) [X]  
 Perchlorate 314.0 [X]  
 Hexavalent Cr6 -7196 (mg/L) [X]  
 Chloride, Nitrate, Sulfate [X]  
 Orthophosphate 365.1 [X]  
 Nitrite 353.2 [X]

Notes:  
 SHORT HOLDING TIME  
 Cr<sup>6</sup> NO<sub>2</sub> NO<sub>3</sub> OP SS  
 DO CL BOD MRAS COT  
 CHL BY DISTRIBUTION  
 K10  
 M/S/MSD  
 Level IV

Billing:  
 Client: SAME  
 Attn:  
 Address:  
 City: State: Zip:  
 Are there any tests with holding times? less than or equal to 48 hours?  
 Yes  No  
 \*Standard Turnaround = 10

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

Comments:  
 PLEASE NOTE WHICH SAMPLES TO USE FOR QC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

Cost Center:  
 1. Requisitioned By: [Signature] Date: 10/21/13 Time: 1530  
 2. Requisitioned By: [Signature] Date: 10/21/13 Time: 1615  
 3. Requisitioned By: [Signature] Date: 10/21/13 Time: 1615

Global ID:  
 1. Received By: [Signature] Date: 10/21/13 Time: 1530  
 2. Received By: [Signature] Date: 10/21/13 Time: 1615  
 3. Received By: [Signature] Date: 10/21/13 Time: 1615

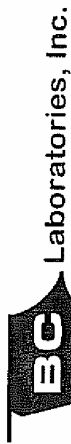
BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-1918 www.bclabs.com

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.



Page 2 of 2

Chain of Custody Form



Report To: Battelle MHTS  
 Client: David Corner  
 Attn: David Corner  
 Street Address: 505 King Ave.  
 City: Columbus state: OH zip: 43201  
 Phone: (614) 424-5489 Fax: (614) 458-5489  
 Email Address: connerd@battelle.org  
 Submission #: 13-22918

Project Description: JPL-GW Monitoring  
 Project Code: 3Q13  
 Sampler(s): Blaine Tech

Analysis Requested:  
 VOCs EPA 524.2  
 Total Chromium 200.8 (ug/L)  
 Perchlorate 314.0  
 Hexavalent Cr6 -7196 (mg/L)  
 Chloride, Nitrate, Sulfate  
 Orthophosphate 365.1  
 Nitrite 353.2

Sample #	Sample Description	Date	Time	Matrix*
-12	MW-4-2	10-21-13	1335	AG
-13	MW-4-1	10-21-13	1400	↓

Notes:  
 Yes  No  
 \*Standard Turnaround = 10

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other  
 Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)  
 Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

Global ID: \_\_\_\_\_  
 1. Received By: [Signature] Date: 10-21-13 Time: 1530  
 2. Relinquished By: [Signature] Date: 10-21-13 Time: 1615  
 3. Relinquished By: [Signature] Date: 10-21-13 Time: 1945

Cost Center:  
 1. Relinquished By: [Signature] Date: 10-21-13 Time: 1530  
 2. Relinquished By: [Signature] Date: 10-21-13 Time: 1615  
 3. Relinquished By: [Signature] Date: 10-21-13 Time: 1945

Comments:  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR QC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-1918 www.bclabs.com



BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 of 2

Submission #: 13-22918

**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: DPE Thermometer ID: 207  
 Temperature: (A) 3.1 °C / (C) 3.2 °C

Date/Time: 10-21-13 1945  
 Analyst Init: SAS

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/GENERAL		B	B	B	B	B	B	B	B	B
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS		C	C	C	C	C	C	C	C	C
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A 2									
40ml VOA VIAL		A, B	A, B	A, B	A, B	A, B	A, B	A, B	A, B	A, B
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: MA Date/Time: 10/21/13 2016  
 A = Actual / C = Corrected



Chain of Custody and Cooler Receipt Form for 1322918 Page 4 of 4

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 of 2

Submission #: 13-22918

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

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: Dr PE Thermometer ID: 207 Date/Time 10-21-13 1945  
 Temperature: (A) 3.1 °C / (C) 3.2 °C Analyst Init SAS

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL	B	B	B							
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS	C	C	C							
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A-3	A-3	A-3							
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR										
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: SA Date/Time: 10/21/13 2010





Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1322918-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-1-10/21/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-1-10/21/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1322918-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> SB-1-10/21/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 07:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): SB-1-10/21/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1322918-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-1-10/21/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 07:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-1-10/21/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1322918-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-12-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 08:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-12-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1322918-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-12-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 09:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-12-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1322918-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-12-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 09:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-12-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1322918-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-12-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 10:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-12-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1322918-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-12-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 10:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-12-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1322918-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-4-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 12:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-4-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1322918-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-4-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 12:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-4-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1322918-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-4-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 13:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-4-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

<b>1322918-12</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-4-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/21/2013 19:45 <b>Sampling Date:</b> 10/21/2013 13:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-4-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1322918-13</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 10/21/2013 19:45
	<b>Project Number:</b> JPL-GW	<b>Sampling Date:</b> 10/21/2013 14:00
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MW-4-1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Blaine Tech of BAT	<b>Sample Type:</b> Water
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): MW-4-1
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-01	<b>Client Sample Name:</b> JPL-GW, TB-1-10/21/13, 10/21/2013 7:00:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-01	<b>Client Sample Name:</b> JPL-GW, TB-1-10/21/13, 10/21/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-01	<b>Client Sample Name:</b> JPL-GW, TB-1-10/21/13, 10/21/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 14:15	MGC	MS-V5	1	BWJ1662





Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-01	<b>Client Sample Name:</b> JPL-GW, TB-1-10/21/13, 10/21/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 14:15	MGC	MS-V5	1	BWJ1662



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-02	<b>Client Sample Name:</b> JPL-GW, SB-1-10/21/13, 10/21/2013 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-02	<b>Client Sample Name:</b> JPL-GW, SB-1-10/21/13, 10/21/2013 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-02	<b>Client Sample Name:</b> JPL-GW, SB-1-10/21/13, 10/21/2013 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 14:38	MGC	MS-V5	1	BWJ1662

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-02	<b>Client Sample Name:</b> JPL-GW, SB-1-10/21/13, 10/21/2013 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 14:38	MGC	MS-V5	1	BWJ1662



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-02	<b>Client Sample Name:</b> JPL-GW, SB-1-10/21/13, 10/21/2013 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/30/13 21:44	LS1	IC6	1	BWJ2105

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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-02	<b>Client Sample Name:</b> JPL-GW, SB-1-10/21/13, 10/21/2013 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00091	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/21/13	10/21/13	21:42	LS1	KONE-1	1	BWJ1660
2	EPA-200.8	10/23/13	10/23/13	19:34	SRM	PE-EL2	1	BWJ1812



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-03	<b>Client Sample Name:</b> JPL-GW, EB-1-10/21/13, 10/21/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-03	<b>Client Sample Name:</b> JPL-GW, EB-1-10/21/13, 10/21/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-03	<b>Client Sample Name:</b> JPL-GW, EB-1-10/21/13, 10/21/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 15:01	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-03	<b>Client Sample Name:</b> JPL-GW, EB-1-10/21/13, 10/21/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 15:01	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-03	<b>Client Sample Name:</b> JPL-GW, EB-1-10/21/13, 10/21/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/30/13 17:07	LS1	IC6	1	BWJ2105

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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-03	<b>Client Sample Name:</b> JPL-GW, EB-1-10/21/13, 10/21/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00091	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/21/13	10/21/13	21:42	LS1	KONE-1	1	BWJ1660
2	EPA-200.8	10/23/13	10/23/13	19:37	SRM	PE-EL2	1	BWJ1812



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Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-04	<b>Client Sample Name:</b> JPL-GW, MW-12-5, 10/21/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>0.29</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.18</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.28</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-04	<b>Client Sample Name:</b> JPL-GW, MW-12-5, 10/21/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.12</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-04	<b>Client Sample Name:</b> JPL-GW, MW-12-5, 10/21/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 15:23	MGC	MS-V5	1	BWJ1662





Battelle MHTS  
505 King Ave.  
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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-04	<b>Client Sample Name:</b> JPL-GW, MW-12-5, 10/21/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 15:23	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-04	<b>Client Sample Name:</b> JPL-GW, MW-12-5, 10/21/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.3	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/30/13 17:21	LS1	IC6	1	BWJ2105



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-04	<b>Client Sample Name:</b> JPL-GW, MW-12-5, 10/21/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0019	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	1.5	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/21/13	10/21/13 21:42	LS1	KONE-1	1	BWJ1660
2	EPA-200.8	10/23/13	10/23/13 19:41	SRM	PE-EL2	1	BWJ1812

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505 King Ave.  
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Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-05	<b>Client Sample Name:</b> JPL-GW, MW-12-4, 10/21/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>0.53</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.18</b>	<b>EPA-524.2</b>	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.61</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-05	<b>Client Sample Name:</b> JPL-GW, MW-12-4, 10/21/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.23</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-05	<b>Client Sample Name:</b> JPL-GW, MW-12-4, 10/21/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 15:46	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-05	<b>Client Sample Name:</b> JPL-GW, MW-12-4, 10/21/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 15:46	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-05	<b>Client Sample Name:</b> JPL-GW, MW-12-4, 10/21/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.3	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/30/13 17:34	LS1	IC6	1	BWJ2105





Battelle MHTS  
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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-05	<b>Client Sample Name:</b> JPL-GW, MW-12-4, 10/21/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00092	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	0.86	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/21/13	10/21/13 21:42	LS1	KONE-1	1	BWJ1660
2	EPA-200.8	10/23/13	10/23/13 19:44	SRM	PE-EL2	1	BWJ1812

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Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-06	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 10/21/2013 9:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>0.42</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.18</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.54</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-06	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 10/21/2013 9:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.090</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-06	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 10/21/2013 9:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 16:09	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-06	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 10/21/2013 9:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 16:09	MGC	MS-V5	1	BWJ1662



Battelle MHTS  
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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-06	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 10/21/2013 9:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	4.5	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/30/13 17:48	LS1	IC6	1	BWJ2105



Battelle MHTS  
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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-06	<b>Client Sample Name:</b> JPL-GW, MW-12-3, 10/21/2013 9:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/21/13	10/21/13	21:48	LS1	KONE-1	1	BWJ1660
2	EPA-200.8	10/23/13	10/23/13	19:47	SRM	PE-EL2	1	BWJ1812

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**Reported:** 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-07	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 10/21/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-07	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 10/21/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-07	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 10/21/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 16:31	MGC	MS-V5	1	BWJ1662



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-07	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 10/21/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 16:31	MGC	MS-V5	1	BWJ1662



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-07	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 10/21/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	5.6	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/30/13 18:02	LS1	IC6	1	BWJ2105



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-07	<b>Client Sample Name:</b> JPL-GW, MW-12-2, 10/21/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.0</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/21/13	10/21/13 21:49	LS1	KONE-1	1	BWJ1660
2	EPA-200.8	10/23/13	10/23/13 19:50	SRM	PE-EL2	1	BWJ1812



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-08	<b>Client Sample Name:</b> JPL-GW, MW-12-1, 10/21/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-08	<b>Client Sample Name:</b> JPL-GW, MW-12-1, 10/21/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
<b>Trichlorofluoromethane</b>	<b>0.23</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-08	<b>Client Sample Name:</b> JPL-GW, MW-12-1, 10/21/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	89.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	88.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 09:43	MGC	MS-V5	1	BWJ1662





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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-08	<b>Client Sample Name:</b> JPL-GW, MW-12-1, 10/21/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 09:43	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-08	<b>Client Sample Name:</b> JPL-GW, MW-12-1, 10/21/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/31/13 08:27	LD1	IC6	1	BWJ2105



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-08	<b>Client Sample Name:</b> JPL-GW, MW-12-1, 10/21/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00070	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	1.9	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/21/13	10/21/13 21:42	LS1	KONE-1	1	BWJ1660
2	EPA-200.8	10/23/13	10/23/13 19:04	SRM	PE-EL2	1	BWJ1812



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-09	<b>Client Sample Name:</b> JPL-GW, MW-4-5, 10/21/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-09	<b>Client Sample Name:</b> JPL-GW, MW-4-5, 10/21/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.11</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.068</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-09	<b>Client Sample Name:</b> JPL-GW, MW-4-5, 10/21/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 16:54	MGC	MS-V5	1	BWJ1662



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-09	<b>Client Sample Name:</b> JPL-GW, MW-4-5, 10/21/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 16:54	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-09	<b>Client Sample Name:</b> JPL-GW, MW-4-5, 10/21/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/30/13 18:30	LS1	IC6	1	BWJ2105





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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-09	<b>Client Sample Name:</b> JPL-GW, MW-4-5, 10/21/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/21/13	10/21/13 21:49	LS1	KONE-1	1	BWJ1660
2	EPA-200.8	10/23/13	10/23/13 19:53	SRM	PE-EL2	1	BWJ1812



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**Reported:** 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-10	<b>Client Sample Name:</b> JPL-GW, MW-4-4, 10/21/2013 12:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-10	<b>Client Sample Name:</b> JPL-GW, MW-4-4, 10/21/2013 12:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-10	<b>Client Sample Name:</b> JPL-GW, MW-4-4, 10/21/2013 12:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 17:17	MGC	MS-V5	1	BWJ1662

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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-10	<b>Client Sample Name:</b> JPL-GW, MW-4-4, 10/21/2013 12:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 17:17	MGC	MS-V5	1	BWJ1662

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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-10	<b>Client Sample Name:</b> JPL-GW, MW-4-4, 10/21/2013 12:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/31/13 08:55	LD1	IC6	1	BWJ2105



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-10	<b>Client Sample Name:</b> JPL-GW, MW-4-4, 10/21/2013 12:40:00PM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/21/13	10/21/13 21:49	LS1	KONE-1	1	BWJ1660
2	EPA-200.8	10/23/13	10/23/13 19:57	SRM	PE-EL2	1	BWJ1812



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Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-11	<b>Client Sample Name:</b> JPL-GW, MW-4-3, 10/21/2013 1:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-11	<b>Client Sample Name:</b> JPL-GW, MW-4-3, 10/21/2013 1:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-11	<b>Client Sample Name:</b> JPL-GW, MW-4-3, 10/21/2013 1:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	88.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 17:40	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-11	<b>Client Sample Name:</b> JPL-GW, MW-4-3, 10/21/2013 1:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 17:40	MGC	MS-V5	1	BWJ1662

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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-11	<b>Client Sample Name:</b> JPL-GW, MW-4-3, 10/21/2013 1:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.2	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/30/13 20:35	LS1	IC6	1	BWJ2105



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-11	<b>Client Sample Name:</b> JPL-GW, MW-4-3, 10/21/2013 1:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.9</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/21/13	10/21/13 21:49	LS1	KONE-1	1	BWJ1660
2	EPA-200.8	10/23/13	10/23/13 20:00	SRM	PE-EL2	1	BWJ1812



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Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-12	<b>Client Sample Name:</b> JPL-GW, MW-4-2, 10/21/2013 1:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>1.2</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.7</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>Dibromochloromethane</b>	<b>0.64</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.20</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	J	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-12	<b>Client Sample Name:</b> JPL-GW, MW-4-2, 10/21/2013 1:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.47</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.60</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-12	<b>Client Sample Name:</b> JPL-GW, MW-4-2, 10/21/2013 1:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 18:02	MGC	MS-V5	1	BWJ1662





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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-12	<b>Client Sample Name:</b> JPL-GW, MW-4-2, 10/21/2013 1:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 18:02	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-12	<b>Client Sample Name:</b> JPL-GW, MW-4-2, 10/21/2013 1:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	210	ug/L	80	16	EPA-314.0	ND	A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/31/13 09:23	LD1	IC6	20	BWJ2106



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-12	<b>Client Sample Name:</b> JPL-GW, MW-4-2, 10/21/2013 1:35:00PM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>12</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/21/13	10/21/13 21:49	LS1	KONE-1	1	BWJ1661
2	EPA-200.8	10/23/13	10/23/13 18:28	SRM	PE-EL2	1	BWJ1814



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**Reported:** 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-13	<b>Client Sample Name:</b> JPL-GW, MW-4-1, 10/21/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-13	<b>Client Sample Name:</b> JPL-GW, MW-4-1, 10/21/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1322918-13	<b>Client Sample Name:</b> JPL-GW, MW-4-1, 10/21/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	88.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 18:25	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
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**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1322918-13	<b>Client Sample Name:</b> JPL-GW, MW-4-1, 10/21/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/22/13	10/22/13 18:25	MGC	MS-V5	1	BWJ1662



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1322918-13	<b>Client Sample Name:</b> JPL-GW, MW-4-1, 10/21/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/31/13 09:37	LD1	IC6	1	BWJ2106





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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1322918-13	<b>Client Sample Name:</b> JPL-GW, MW-4-1, 10/21/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/21/13	10/21/13 21:52	LS1	KONE-1	1	BWJ1661
2	EPA-200.8	10/23/13	10/23/13 18:32	SRM	PE-EL2	1	BWJ1814



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**Reported:** 11/06/2013 16:10  
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Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1662</b>						
Benzene	BWJ1662-BLK1	ND	ug/L	0.50	0.083	
Bromobenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.13	
Bromochloromethane	BWJ1662-BLK1	ND	ug/L	0.50	0.24	
Bromodichloromethane	BWJ1662-BLK1	ND	ug/L	0.50	0.14	
Bromoform	BWJ1662-BLK1	ND	ug/L	0.50	0.27	
Bromomethane	BWJ1662-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.11	
sec-Butylbenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.15	
tert-Butylbenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.13	
Carbon tetrachloride	BWJ1662-BLK1	ND	ug/L	0.50	0.18	
Chlorobenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.093	
Chloroethane	BWJ1662-BLK1	ND	ug/L	0.50	0.14	
Chloroform	BWJ1662-BLK1	ND	ug/L	0.50	0.12	
Chloromethane	BWJ1662-BLK1	ND	ug/L	0.50	0.14	
2-Chlorotoluene	BWJ1662-BLK1	ND	ug/L	0.50	0.20	
4-Chlorotoluene	BWJ1662-BLK1	ND	ug/L	0.50	0.15	
Dibromochloromethane	BWJ1662-BLK1	ND	ug/L	0.50	0.13	
1,2-Dibromo-3-chloropropane	BWJ1662-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane	BWJ1662-BLK1	ND	ug/L	0.50	0.16	
Dibromomethane	BWJ1662-BLK1	ND	ug/L	0.50	0.24	
1,2-Dichlorobenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.072	
1,3-Dichlorobenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.15	
1,4-Dichlorobenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.062	
Dichlorodifluoromethane	BWJ1662-BLK1	ND	ug/L	0.50	0.099	
1,1-Dichloroethane	BWJ1662-BLK1	ND	ug/L	0.50	0.11	
1,2-Dichloroethane	BWJ1662-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	BWJ1662-BLK1	ND	ug/L	0.50	0.18	
cis-1,2-Dichloroethene	BWJ1662-BLK1	ND	ug/L	0.50	0.085	
trans-1,2-Dichloroethene	BWJ1662-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloropropane	BWJ1662-BLK1	ND	ug/L	0.50	0.13	
1,3-Dichloropropane	BWJ1662-BLK1	ND	ug/L	0.50	0.086	
2,2-Dichloropropane	BWJ1662-BLK1	ND	ug/L	0.50	0.13	
1,1-Dichloropropene	BWJ1662-BLK1	ND	ug/L	0.50	0.085	
cis-1,3-Dichloropropene	BWJ1662-BLK1	ND	ug/L	0.50	0.14	

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**Reported:** 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1662</b>						
trans-1,3-Dichloropropene	BWJ1662-BLK1	ND	ug/L	0.50	0.079	
Ethylbenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.098	
Hexachlorobutadiene	BWJ1662-BLK1	ND	ug/L	0.50	0.17	
Isopropylbenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	BWJ1662-BLK1	ND	ug/L	0.50	0.12	
Methylene chloride	BWJ1662-BLK1	ND	ug/L	0.50	0.48	
Methyl t-butyl ether	BWJ1662-BLK1	ND	ug/L	0.50	0.11	
Naphthalene	BWJ1662-BLK1	ND	ug/L	0.50	0.36	
n-Propylbenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.11	
Styrene	BWJ1662-BLK1	ND	ug/L	0.50	0.068	
1,1,1,2-Tetrachloroethane	BWJ1662-BLK1	ND	ug/L	0.50	0.18	
1,1,2,2-Tetrachloroethane	BWJ1662-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	BWJ1662-BLK1	ND	ug/L	0.50	0.13	
Toluene	BWJ1662-BLK1	ND	ug/L	0.50	0.093	
1,2,3-Trichlorobenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.16	
1,2,4-Trichlorobenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.19	
1,1,1-Trichloroethane	BWJ1662-BLK1	ND	ug/L	0.50	0.11	
1,1,2-Trichloroethane	BWJ1662-BLK1	ND	ug/L	0.50	0.16	
Trichloroethene	BWJ1662-BLK1	ND	ug/L	0.50	0.085	
Trichlorofluoromethane	BWJ1662-BLK1	ND	ug/L	0.50	0.13	
1,2,3-Trichloropropane	BWJ1662-BLK1	ND	ug/L	1.0	0.24	
1,1,2-Trichloro-1,2,2-trifluoroethane	BWJ1662-BLK1	ND	ug/L	0.50	0.15	
1,2,4-Trimethylbenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.12	
1,3,5-Trimethylbenzene	BWJ1662-BLK1	ND	ug/L	0.50	0.12	
Vinyl chloride	BWJ1662-BLK1	ND	ug/L	0.50	0.12	
Acetone	BWJ1662-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BWJ1662-BLK1	ND	ug/L	5.0	1.2	
Allyl chloride	BWJ1662-BLK1	ND	ug/L	5.0	0.80	
t-Amyl Methyl ether	BWJ1662-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BWJ1662-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BWJ1662-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BWJ1662-BLK1	ND	ug/L	5.0	1.4	
Diethyl ether	BWJ1662-BLK1	ND	ug/L	2.0	0.21	
Ethyl methacrylate	BWJ1662-BLK1	ND	ug/L	4.0	0.97	

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Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1662</b>						
Ethyl t-butyl ether	BWJ1662-BLK1	ND	ug/L	0.50	0.18	
Hexachloroethane	BWJ1662-BLK1	ND	ug/L	0.50	0.16	
2-Hexanone	BWJ1662-BLK1	ND	ug/L	10	3.4	
Methacrylonitrile	BWJ1662-BLK1	ND	ug/L	10	1.7	
Methyl ethyl ketone	BWJ1662-BLK1	ND	ug/L	10	2.5	
Methyl iodide	BWJ1662-BLK1	ND	ug/L	2.0	0.47	
Methyl isobutyl ketone	BWJ1662-BLK1	ND	ug/L	10	2.1	
Methyl methacrylate	BWJ1662-BLK1	ND	ug/L	5.0	1.5	
Pentachloroethane	BWJ1662-BLK1	ND	ug/L	2.0	0.43	
Propionitrile	BWJ1662-BLK1	ND	ug/L	20	4.2	
Tetrahydrofuran	BWJ1662-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	BWJ1662-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BWJ1662-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	BWJ1662-BLK1	97.2	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWJ1662-BLK1	97.4	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWJ1662-BLK1	92.6	%	80 - 120 (LCL - UCL)		



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Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ1662</b>										
Benzene	BWJ1662-BS1	LCS	25.340	25.000	ug/L	101		70 - 130		
Bromodichloromethane	BWJ1662-BS1	LCS	23.700	25.000	ug/L	94.8		70 - 130		
Chlorobenzene	BWJ1662-BS1	LCS	23.570	25.000	ug/L	94.3		70 - 130		
Chloroethane	BWJ1662-BS1	LCS	24.970	25.000	ug/L	99.9		70 - 130		
1,4-Dichlorobenzene	BWJ1662-BS1	LCS	22.900	25.000	ug/L	91.6		70 - 130		
1,1-Dichloroethane	BWJ1662-BS1	LCS	23.460	25.000	ug/L	93.8		70 - 130		
1,1-Dichloroethene	BWJ1662-BS1	LCS	24.300	25.000	ug/L	97.2		70 - 130		
Toluene	BWJ1662-BS1	LCS	24.610	25.000	ug/L	98.4		70 - 130		
Trichloroethene	BWJ1662-BS1	LCS	23.770	25.000	ug/L	95.1		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BWJ1662-BS1	LCS	9.6800	10.000	ug/L	96.8		75 - 125		
Toluene-d8 (Surrogate)	BWJ1662-BS1	LCS	9.7000	10.000	ug/L	97.0		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWJ1662-BS1	LCS	9.5900	10.000	ug/L	95.9		80 - 120		



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWJ1662</b>		Used client sample: Y - Description: MW-12-1, 10/21/2013 10:40								
Benzene	MS	1322918-08	ND	25.140	25.000	ug/L		101		70 - 130
	MSD	1322918-08	ND	26.140	25.000	ug/L	3.9	105	20	70 - 130
Bromodichloromethane	MS	1322918-08	ND	24.530	25.000	ug/L		98.1		70 - 130
	MSD	1322918-08	ND	25.330	25.000	ug/L	3.2	101	20	70 - 130
Chlorobenzene	MS	1322918-08	ND	24.300	25.000	ug/L		97.2		70 - 130
	MSD	1322918-08	ND	25.150	25.000	ug/L	3.4	101	20	70 - 130
Chloroethane	MS	1322918-08	ND	25.680	25.000	ug/L		103		70 - 130
	MSD	1322918-08	ND	26.580	25.000	ug/L	3.4	106	20	70 - 130
1,4-Dichlorobenzene	MS	1322918-08	ND	23.730	25.000	ug/L		94.9		70 - 130
	MSD	1322918-08	ND	25.320	25.000	ug/L	6.5	101	20	70 - 130
1,1-Dichloroethane	MS	1322918-08	ND	24.230	25.000	ug/L		96.9		70 - 130
	MSD	1322918-08	ND	25.120	25.000	ug/L	3.6	100	20	70 - 130
1,1-Dichloroethene	MS	1322918-08	ND	24.610	25.000	ug/L		98.4		70 - 130
	MSD	1322918-08	ND	25.190	25.000	ug/L	2.3	101	20	70 - 130
Toluene	MS	1322918-08	ND	25.090	25.000	ug/L		100		70 - 130
	MSD	1322918-08	ND	26.480	25.000	ug/L	5.4	106	20	70 - 130
Trichloroethene	MS	1322918-08	ND	23.970	25.000	ug/L		95.9		70 - 130
	MSD	1322918-08	ND	25.170	25.000	ug/L	4.9	101	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1322918-08	ND	9.3100	10.000	ug/L		93.1		75 - 125
	MSD	1322918-08	ND	9.3700	10.000	ug/L	0.6	93.7		75 - 125
Toluene-d8 (Surrogate)	MS	1322918-08	ND	9.7900	10.000	ug/L		97.9		80 - 120
	MSD	1322918-08	ND	9.9000	10.000	ug/L	1.1	99.0		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1322918-08	ND	9.9000	10.000	ug/L		99.0		80 - 120
	MSD	1322918-08	ND	9.9000	10.000	ug/L	0	99.0		80 - 120

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1662</b>						
Chloroacetonitrile	BWJ1662-BLK1	0	ug/L			
1-Chlorobutane	BWJ1662-BLK1	0	ug/L			
1,1-Dichloropropanone	BWJ1662-BLK1	0	ug/L			
Methyl acrylate	BWJ1662-BLK1	0	ug/L			
Nitrobenzene	BWJ1662-BLK1	0	ug/L			
2-Nitropropane	BWJ1662-BLK1	0	ug/L			



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Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2105</b>						
Perchlorate	BWJ2105-BLK1	ND	ug/L	4.0	0.81	
<b>QC Batch ID: BWJ2106</b>						
Perchlorate	BWJ2106-BLK1	ND	ug/L	4.0	0.81	





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**Reported:** 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2105</b>										
Perchlorate	BWJ2105-BS1	LCS	11.394	10.000	ug/L	114		85	115	
<b>QC Batch ID: BWJ2106</b>										
Perchlorate	BWJ2106-BS1	LCS	9.5021	10.000	ug/L	95.0		85	115	



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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWJ2105</b>		Used client sample: Y - Description: SB-1-10/21/13, 10/21/2013 07:30								
Perchlorate	DUP	1322918-02	ND	ND		ug/L			15	
	MS	1322918-02	ND	9.4364	10.101	ug/L		93.4		80 - 120
	MSD	1322918-02	ND	9.7792	10.101	ug/L	3.6	96.8	15	80 - 120
<b>QC Batch ID: BWJ2106</b>		Used client sample: N								
Perchlorate	DUP	1322922-03	9.5948	10.763		ug/L	11.5		15	
	MS	1322922-03	9.5948	20.658	10.101	ug/L		110		80 - 120
	MSD	1322922-03	9.5948	21.183	10.101	ug/L	2.5	115	15	80 - 120

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**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1660</b>						
Hexavalent Chromium	BWJ1660-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWJ1661</b>						
Hexavalent Chromium	BWJ1661-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWJ1812</b>						
Total Recoverable Chromium	BWJ1812-BLK1	ND	ug/L	3.0	0.50	
<b>QC Batch ID: BWJ1814</b>						
Total Recoverable Chromium	BWJ1814-BLK1	ND	ug/L	3.0	0.50	



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**Reported:** 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
<b>QC Batch ID: BWJ1660</b>											
Hexavalent Chromium	BWJ1660-BS1	LCS	0.046591	0.050000	mg/L	93.2		85	115		
<b>QC Batch ID: BWJ1661</b>											
Hexavalent Chromium	BWJ1661-BS1	LCS	0.047196	0.050000	mg/L	94.4		85	115		
<b>QC Batch ID: BWJ1812</b>											
Total Recoverable Chromium	BWJ1812-BS1	LCS	41.050	40.000	ug/L	103		85	115		
<b>QC Batch ID: BWJ1814</b>											
Total Recoverable Chromium	BWJ1814-BS1	LCS	41.230	40.000	ug/L	103		85	115		



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Columbus, OH 43201

Reported: 11/06/2013 16:10  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab	Quals
								Percent Recovery	Percent Recovery		
<b>QC Batch ID: BWJ1660</b>		Used client sample: Y - Description: MW-12-1, 10/21/2013 10:40									
Hexavalent Chromium	DUP	1322918-08	0.00070100	0.00077800		mg/L	10.4		10		J,A02
	MS	1322918-08	0.00070100	0.048702	0.052632	mg/L		91.2		85 - 115	
	MSD	1322918-08	0.00070100	0.049323	0.052632	mg/L	1.3	92.4	10	85 - 115	
<b>QC Batch ID: BWJ1661</b>		Used client sample: Y - Description: MW-4-2, 10/21/2013 13:35									
Hexavalent Chromium	DUP	1322918-12	ND	ND		mg/L			10		
	MS	1322918-12	ND	0.019946	0.052632	mg/L		37.9		85 - 115	Q03
	MSD	1322918-12	ND	0.020559	0.052632	mg/L	3.0	39.1	10	85 - 115	Q03
<b>QC Batch ID: BWJ1812</b>		Used client sample: Y - Description: MW-12-1, 10/21/2013 10:40									
Total Recoverable Chromium	DUP	1322918-08	1.9220	1.8840		ug/L	2.0		20		J
	MS	1322918-08	1.9220	40.519	40.000	ug/L		96.5		70 - 130	
	MSD	1322918-08	1.9220	40.370	40.000	ug/L	0.4	96.1	20	70 - 130	
<b>QC Batch ID: BWJ1814</b>		Used client sample: N									
Total Recoverable Chromium	DUP	1322851-07	ND	ND		ug/L			20		
	MS	1322851-07	ND	37.731	40.000	ug/L		94.3		70 - 130	
	MSD	1322851-07	ND	35.932	40.000	ug/L	4.9	89.8	20	70 - 130	

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/06/2013 16:10  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A01 PQL's and MDL's are raised due to sample dilution.
- A02 The difference between duplicate readings is less than the PQL.
- A40 Initial calibration linearity criteria not met.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.



Date of Report: 11/07/2013

David Conner

Battelle MHTS

505 King Ave.

Columbus, OH 43201

Project: JPL- GW Monitoring Wells

BC Work Order: 1323038

Invoice ID: B159334

Enclosed are the results of analyses for samples received by the laboratory on 10/22/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



# Table of Contents

## Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	10

## Sample Results

<b>1323038-01 - TB-2-10/22/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	15
Volatile Organic Analysis (EPA Method 524.2) TICs.....	18
<b>1323038-02 - EB-2-10/22/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	19
Volatile Organic Analysis (EPA Method 524.2) TICs.....	22
Water Analysis (General Chemistry).....	23
Metals Analysis.....	24
<b>1323038-03 - MW-20-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	25
Volatile Organic Analysis (EPA Method 524.2) TICs.....	28
Water Analysis (General Chemistry).....	29
Metals Analysis.....	30
<b>1323038-04 - MW-20-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	31
Volatile Organic Analysis (EPA Method 524.2) TICs.....	34
Water Analysis (General Chemistry).....	35
Metals Analysis.....	36
<b>1323038-05 - DUPE-1-4Q13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	37
Volatile Organic Analysis (EPA Method 524.2) TICs.....	40
Water Analysis (General Chemistry).....	41
Metals Analysis.....	42
<b>1323038-06 - MW-20-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	43
Volatile Organic Analysis (EPA Method 524.2) TICs.....	46
Water Analysis (General Chemistry).....	47
Metals Analysis.....	48
<b>1323038-07 - MW-20-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	49
Volatile Organic Analysis (EPA Method 524.2) TICs.....	52
Water Analysis (General Chemistry).....	53
Metals Analysis.....	54
<b>1323038-08 - MW-20-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	55
Volatile Organic Analysis (EPA Method 524.2) TICs.....	58
Water Analysis (General Chemistry).....	59
Metals Analysis.....	60
<b>1323038-09 - MW-19-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	61
Volatile Organic Analysis (EPA Method 524.2) TICs.....	64
Water Analysis (General Chemistry).....	65
Metals Analysis.....	66
<b>1323038-10 - MW-19-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	67
Volatile Organic Analysis (EPA Method 524.2) TICs.....	70
Water Analysis (General Chemistry).....	71
Metals Analysis.....	72
<b>1323038-11 - MW-19-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	73





## Table of Contents

Volatile Organic Analysis (EPA Method 524.2) TICs.....	76
Water Analysis (General Chemistry).....	77
Metals Analysis.....	78
<b>1323038-12 - MW-19-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	79
Volatile Organic Analysis (EPA Method 524.2) TICs.....	82
Water Analysis (General Chemistry).....	83
Metals Analysis.....	84
<b>1323038-13 - MW-19-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	85
Volatile Organic Analysis (EPA Method 524.2) TICs.....	88
Water Analysis (General Chemistry).....	89
Metals Analysis.....	90
<b>Quality Control Reports</b>	
<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	91
Laboratory Control Sample.....	96
Precision and Accuracy.....	97
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	99
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	100
Laboratory Control Sample.....	101
Precision and Accuracy.....	102
<b>Metals Analysis</b>	
Method Blank Analysis.....	103
Laboratory Control Sample.....	104
Precision and Accuracy.....	105
<b>Notes</b>	
Notes and Definitions.....	106



Chain of Custody Form

BC Laboratories, Inc. # 13-23038

Page 1 of 2

Report To: Battelle MHTS  
 Client: David Corner  
 Attn: David Corner  
 Street Address: 505 King Ave.  
 City: Columbus State: OH Zip: 43201  
 Phone: (614) 424-5489 Fax: (614) 458-5489  
 Email Address: connerd@battelle.org  
 Submission #:

Project Description: JPL-GW Monitoring  
 Project Code: 4Q13  
 Sampler(s): Blaine Tech

Analysis Requested:  
 VOCs EPA 524.2  
 Total Cr 200.8 (ug/L)  
 Perchlorate by 314.0  
 Hexavalent Cr (7196) (mg/L)  
 Chloride, Nitrate, Sulfate  
 Orthophosphate 365.1  
 Nitrite 353.2

Sample #	Sample Description	Date	Time	Matrix*		Notes
				WW = Wastewater	GW = Groundwater	
-1	TB-2-10/22/13	10-22-13	0700	AW		
-2	EB-2-10/22/13		0740			
-3	MW-20-5		0820			
-4	MW-20-4		0830			
-5	Dupe-1-4Q13		0920			
-6	MW-20-3		0955			MSMSP
-7	MW-20-2		1040			Level IV
-8	MW-20-1		1150			
-9	MW-19-5		1230			
-10	MW-19-4		1305			
-11	MW-19-3					Level IV

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

Comments:  
 PLEASE NOTIFY WHICH SAMPLES TO USE FOR QC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

Cost Center:  
 1. Relinquished By: [Signature] Date: 10-22-13 Time: 1550  
 2. Relinquished By: Nicole Date: 10-22-13 Time: 1555  
 3. Relinquished By: [Signature] Date: 10-22-13 Time: 2035

Global ID:  
 1. Received By: Nicole Date: 10-22-13 Time: 1550  
 2. Received By: [Signature] Date: 10-22-13 Time: 1555  
 3. Received By: [Signature] Date: 10-22-13 Time: 2035

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-1918 www.bclabs.com



Chain of Custody Form



# 13-23038

Page 2 of 2

Report To: Battelle MHTS  
 Client: David Connor  
 Attn: David Connor  
 Street Address: 505 King Ave.  
 City: Columbus State: OH Zip: 43201  
 Phone: 614 424 5489 Fax: 614 458 5489  
 Email Address: connerd@battelle.org

Project Description: JPL-GW Monitoring  
 Project Code: 4Q13  
 Sampler(s): Blaine Tech

Analysis Requested:  
 Nitrite 353.2  
 Orthophosphate 365.1  
 Chloride, Nitrate, Sulfate  
 Hexavalent Cr (7196) (mg/L)  
 Perchlorate by 314.0  
 Total Cr 200.8 (ug/L)  
 VOCs EPA 524.2

Sample #	Sample Description	Date	Time	Matrix*	Notes
-12	MW-19-2	10-22-13	1355	AQ	
-13	MW-19-1	↓	1400	↓	MS/MSD
	SHORT HOLDING TIME				
	Cr+6 NO <sub>2</sub> NO <sub>3</sub> OP SS				
	DO Cl <sub>2</sub> BOD MBAS COT				
	CHK BY DISTRIBUTION				
	VOL ANALYSIS				
	SUBROUT				

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days: 24 Hr Rush 48 Hr Rush 3-5 Day Rush 10 - Days

Lab TAT Approval: \* Additional Charges May Apply

Global ID: 1022-13 2055

1. Received By: Nicole Date: 10/22/13 Time: 1550  
 2. Received By: Jeff Mu Date: 10/22/13 Time: 1555  
 3. Received By: SAs Date: 10/22/13 Time: 2055

Cost Center: 53308  
 1. Reinquished By: [Signature] Date: 10-22-13 Time: 1550  
 2. Reinquished By: Nicole Date: 10/22/13 Time: 1555  
 3. Reinquished By: [Signature] Date: 10/22/13 Time: 2055

Comments:  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR  
 QC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327 - 4911 Fax: (661) 327 - 1918 www.bclabs.com

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Chain of Custody and Cooler Receipt Form for 1323038 Page 3 of 6

LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 Of 4

Submission #: 13-23038

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Study Seals: Ice Chest, Containers. Intact: Yes, No. Comments:

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

COC Received: YES, NO. Emissivity: 0.97, Container: Vega, Thermometer ID: 207, Date/Time: 10-22-13 2055, Temperature: (A) 1.9, (C) 1.8, Analyst Init: SAS

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like GENERAL MINERAL, NITROGEN FORMS, etc.

Remarks: Date/Time: 10-22-13 2230



Chain of Custody and Cooler Receipt Form for 1323038 Page 4 of 6

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 Of 4

Submission #: 13-23038

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, 3C Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. 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: 0.97. Container: Vea. Thermometer ID: 207. Date/Time: 10-22-13 2055. Temperature: (A) 1.9 °C, (C) 1.8 °C. Analyst Init: SAS.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various test types like GENERAL MINERAL, TOX, and METALS.

Comments: Sample Numbering Completed By: [Signature] Date/Time: 10-22-13 2230

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Chain of Custody and Cooler Receipt Form for 1323038 Page 5 of 6

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 3 Of 4

Submission #: 13-23038

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, 3C Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers. Intact? Yes, No. None. Comments:

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: Q+PE. Thermometer ID: 207. Date/Time: 10-22-13 2055. Temperature: (A) 3.0 °C / (C) 3.1 °C. Analyst Init: SAS.

Table with columns: SAMPLE CONTAINERS, SAMPLE NUMBERS (1-10). Rows include: GENERAL MINERAL/GENERAL, PE UNPRESERVED, INORGANIC CHEMICAL METALS, CYANIDE, NITROGEN FORMS, TOTAL SULFIDE, NITRATE/NITRITE, TOTAL ORGANIC CARBON, TOX, CHEMICAL OXYGEN DEMAND, PHENOLICS, VOA VIAL TRAVEL BLANK, VOA VIAL, EPA 413.1, 413.2, 418.1, ODOR, BIOLOGICAL, ACTERIOLOGICAL, VOA VIAL-504, EPA 508/608/8080, EPA 515.1/8150, EPA 525, EPA 525 TRAVEL BLANK, EPA 547, EPA 531.1, EPA 548, EPA 549, EPA 632, EPA 8015M, AMBER, OZ. JAR, 2 OZ. JAR, OIL SLEEVE, CB VIAL, LASTIC BAG, ERROUS IRON, NCORE, MART KIT, umma Canister.

Comments: Sample Numbering Completed By: SAS Date/Time: 10-22-13 2230



Chain of Custody and Cooler Receipt Form for 1323038 Page 6 of 6

LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 4 Of 4

Submission #: 13-23038

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Study Seals: Ice Chests, Containers. Intact/Yes/No.

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

COC Received: YES, NO. Emissivity: 0.95. Container: 0+ PE. Thermometer ID: 207. Date/Time: 10-22-13 2055. Temperature: (A) 3.0, (C) 3.1. Analyst Init: SAS.

Table with columns: SAMPLE CONTAINERS, SAMPLE NUMBERS (1-10). Rows include: GENERAL MINERAL/GENERAL, INORGANIC CHEMICAL METALS, CYANIDE, NITROGEN FORMS, TOTAL SULFIDE, NITRATE/NITRITE, TOTAL ORGANIC CARBON, TOX, CHEMICAL OXYGEN DEMAND, PHENOLICS, IVOA VIAL TRAVEL BLANK, IVOA VIAL, EPA 413.1, 413.2, 418.1, ODOR, BIOLOGICAL, MICROBIOLOGICAL, IVOA VIAL-504, EPA 508/608/8080, EPA 515.1/8150, EPA 525, EPA 525 TRAVEL BLANK, IVOA VIAL, EPA 531.1, EPA 548, EPA 549, EPA 632, EPA 8015M, AMBER, JAR, Z. JAR, SLEEVE, VIAL, STIC BAG, ROUS IRON, CORE, ART KIT, IVOA VIAL.

Comments: Date/Time: 10-27-13 2230

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323038-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-2-10/22/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-2-10/22/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323038-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-2-10/22/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 07:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-2-10/22/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323038-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-20-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 07:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-20-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323038-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-20-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 08:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-20-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323038-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUPE-1-4Q13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 08:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUPE-1-4Q13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323038-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-20-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 09:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-20-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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505 King Ave.  
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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323038-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-20-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 09:55 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-20-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323038-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-20-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 10:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-20-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323038-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-19-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 11:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-19-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323038-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-19-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 12:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-19-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323038-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-19-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 13:05 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-19-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323038-12</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-19-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/22/2013 20:55 <b>Sampling Date:</b> 10/22/2013 13:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-19-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323038-13</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 10/22/2013 20:55
	<b>Project Number:</b> JPL-GW	<b>Sampling Date:</b> 10/22/2013 14:00
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MW-19-1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Blaine Tech of BAT	<b>Sample Type:</b> Aqueous
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): MW-19-2
		Matrix: W
		Sample QC Type (SACode): CS
	Cooler ID:	



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-01	<b>Client Sample Name:</b> JPL-GW, TB-2-10/22/13, 10/22/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-01	<b>Client Sample Name:</b> JPL-GW, TB-2-10/22/13, 10/22/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-01	<b>Client Sample Name:</b> JPL-GW, TB-2-10/22/13, 10/22/2013 7:00:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 15:04	MGC	MS-V5	1	BWJ1780



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-01	<b>Client Sample Name:</b> JPL-GW, TB-2-10/22/13, 10/22/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 15:04	MGC	MS-V5	1	BWJ1780





Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-02	<b>Client Sample Name:</b> JPL-GW, EB-2-10/22/13, 10/22/2013 7:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-02	<b>Client Sample Name:</b> JPL-GW, EB-2-10/22/13, 10/22/2013 7:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-02	<b>Client Sample Name:</b> JPL-GW, EB-2-10/22/13, 10/22/2013 7:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 15:26	MGC	MS-V5	1	BWJ1780



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-02	<b>Client Sample Name:</b> JPL-GW, EB-2-10/22/13, 10/22/2013 7:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 15:26	MGC	MS-V5	1	BWJ1780



Battelle MHTS  
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Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-02	<b>Client Sample Name:</b> JPL-GW, EB-2-10/22/13, 10/22/2013 7:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/01/13	11/01/13 19:29	LS1	IC6	1	BWJ2414

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-02	<b>Client Sample Name:</b> JPL-GW, EB-2-10/22/13, 10/22/2013 7:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/22/13	10/23/13 00:43	LS1	KONE-1	1	BWJ1782
2	EPA-200.8	10/24/13	10/24/13 21:48	SRM	PE-EL2	1	BWJ1939

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Battelle MHTS  
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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-03	<b>Client Sample Name:</b> JPL-GW, MW-20-5, 10/22/2013 7:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1323038-03		Client Sample Name: JPL-GW, MW-20-5, 10/22/2013 7:40:00AM, Blaine Tech						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.28</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.068</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.75</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.38</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-03	<b>Client Sample Name:</b> JPL-GW, MW-20-5, 10/22/2013 7:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 15:49	MGC	MS-V5	1	BWJ1780



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-03	<b>Client Sample Name:</b> JPL-GW, MW-20-5, 10/22/2013 7:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 15:49	MGC	MS-V5	1	BWJ1780

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-03	<b>Client Sample Name:</b> JPL-GW, MW-20-5, 10/22/2013 7:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/01/13	11/01/13 19:43	LS1	IC6	1	BWJ2414

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-03	<b>Client Sample Name:</b> JPL-GW, MW-20-5, 10/22/2013 7:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/22/13	10/22/13	23:57	LS1	KONE-1	1	BWJ1782
2	EPA-200.8	10/24/13	10/24/13	21:51	SRM	PE-EL2	1	BWJ1939

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**Reported:** 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-04	<b>Client Sample Name:</b> JPL-GW, MW-20-4, 10/22/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-04	<b>Client Sample Name:</b> JPL-GW, MW-20-4, 10/22/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.49</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.38</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-04	<b>Client Sample Name:</b> JPL-GW, MW-20-4, 10/22/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 16:12	MGC	MS-V5	1	BWJ1780



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-04	<b>Client Sample Name:</b> JPL-GW, MW-20-4, 10/22/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 16:12	MGC	MS-V5	1	BWJ1780





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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-04	<b>Client Sample Name:</b> JPL-GW, MW-20-4, 10/22/2013 8:20:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/01/13	11/01/13 19:57	LS1	IC6	1	BWJ2414

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-04	<b>Client Sample Name:</b> JPL-GW, MW-20-4, 10/22/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/22/13	10/22/13	23:57	LS1	KONE-1	1	BWJ1782
2	EPA-200.8	10/24/13	10/24/13	21:54	SRM	PE-EL2	1	BWJ1939



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-05	<b>Client Sample Name:</b> JPL-GW, DUPE-1-4Q13, 10/22/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-05	<b>Client Sample Name:</b> JPL-GW, DUPE-1-4Q13, 10/22/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.78</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.38</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-05	<b>Client Sample Name:</b> JPL-GW, DUPE-1-4Q13, 10/22/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 16:35	MGC	MS-V5	1	BWJ1780



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-05	<b>Client Sample Name:</b> JPL-GW, DUPE-1-4Q13, 10/22/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 16:35	MGC	MS-V5	1	BWJ1780



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-05	<b>Client Sample Name:</b> JPL-GW, DUPE-1-4Q13, 10/22/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/01/13	11/01/13 20:10	LS1	IC6	1	BWJ2414

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-05	<b>Client Sample Name:</b> JPL-GW, DUPE-1-4Q13, 10/22/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/22/13	10/22/13	23:57	LS1	KONE-1	1	BWJ1782
2	EPA-200.8	10/24/13	10/24/13	21:57	SRM	PE-EL2	1	BWJ1939

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-06	<b>Client Sample Name:</b> JPL-GW, MW-20-3, 10/22/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1323038-06		Client Sample Name: JPL-GW, MW-20-3, 10/22/2013 9:20:00AM, Blaine Tech						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
<b>Ethylbenzene</b>	<b>0.13</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.098</b>	<b>EPA-524.2</b>	ND	J	1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.39</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.068</b>	<b>EPA-524.2</b>	ND	J	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.20</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	J	1
<b>Toluene</b>	<b>0.11</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.093</b>	<b>EPA-524.2</b>	ND	J	1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.18</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	J	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
<b>Acrylonitrile</b>	<b>2.6</b>	<b>ug/L</b>	<b>5.0</b>	<b>1.2</b>	<b>EPA-524.2</b>	ND	J	1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.77</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.38</b>	<b>EPA-524.2</b>	ND	J	1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-06	<b>Client Sample Name:</b> JPL-GW, MW-20-3, 10/22/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 16:57	MGC	MS-V5	1	BWJ1780

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-06	<b>Client Sample Name:</b> JPL-GW, MW-20-3, 10/22/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 16:57	MGC	MS-V5	1	BWJ1780



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-06	<b>Client Sample Name:</b> JPL-GW, MW-20-3, 10/22/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/01/13	11/01/13 20:24	LS1	IC6	1	BWJ2514

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-06	<b>Client Sample Name:</b> JPL-GW, MW-20-3, 10/22/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/22/13	10/23/13 00:03	LS1	KONE-1	1	BWJ1782
2	EPA-200.8	10/24/13	10/24/13 22:00	SRM	PE-EL2	1	BWJ1939



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-07	<b>Client Sample Name:</b> JPL-GW, MW-20-2, 10/22/2013 9:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.26</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-07	<b>Client Sample Name:</b> JPL-GW, MW-20-2, 10/22/2013 9:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.15</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.48</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-07	<b>Client Sample Name:</b> JPL-GW, MW-20-2, 10/22/2013 9:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	92.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 09:45	MGC	MS-V5	1	BWJ1780



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-07	<b>Client Sample Name:</b> JPL-GW, MW-20-2, 10/22/2013 9:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 09:45	MGC	MS-V5	1	BWJ1780



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Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-07	<b>Client Sample Name:</b> JPL-GW, MW-20-2, 10/22/2013 9:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.3	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/01/13	11/01/13 21:06	LS1	IC6	1	BWJ2514

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505 King Ave.  
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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-07	<b>Client Sample Name:</b> JPL-GW, MW-20-2, 10/22/2013 9:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/22/13	10/22/13	23:57	LS1	KONE-1	1	BWJ1782
2	EPA-200.8	10/24/13	10/24/13	21:12	SRM	PE-EL2	1	BWJ1939



Battelle MHTS  
505 King Ave.  
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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-08	<b>Client Sample Name:</b> JPL-GW, MW-20-1, 10/22/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.17</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-08	<b>Client Sample Name:</b> JPL-GW, MW-20-1, 10/22/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.42</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.38</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-08	<b>Client Sample Name:</b> JPL-GW, MW-20-1, 10/22/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 17:20	MGC	MS-V5	1	BWJ1780



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-08	<b>Client Sample Name:</b> JPL-GW, MW-20-1, 10/22/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 17:20	MGC	MS-V5	1	BWJ1780

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-08	<b>Client Sample Name:</b> JPL-GW, MW-20-1, 10/22/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/01/13	11/01/13 21:20	LS1	IC6	1	BWJ2514

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-08	<b>Client Sample Name:</b> JPL-GW, MW-20-1, 10/22/2013 10:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/22/13	10/23/13 00:03	LS1	KONE-1	1	BWJ1782
2	EPA-200.8	10/24/13	10/24/13 22:04	SRM	PE-EL2	1	BWJ1939



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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-09	<b>Client Sample Name:</b> JPL-GW, MW-19-5, 10/22/2013 11:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.19</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-09	<b>Client Sample Name:</b> JPL-GW, MW-19-5, 10/22/2013 11:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.58</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.090</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-09	<b>Client Sample Name:</b> JPL-GW, MW-19-5, 10/22/2013 11:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 17:43	MGC	MS-V5	1	BWJ1780



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-09	<b>Client Sample Name:</b> JPL-GW, MW-19-5, 10/22/2013 11:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 17:43	MGC	MS-V5	1	BWJ1780

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-09	<b>Client Sample Name:</b> JPL-GW, MW-19-5, 10/22/2013 11:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.8	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/01/13	11/01/13 21:34	LS1	IC6	1	BWJ2514

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-09	<b>Client Sample Name:</b> JPL-GW, MW-19-5, 10/22/2013 11:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/22/13	10/23/13 00:03	LS1	KONE-1	1	BWJ1782
2	EPA-200.8	10/24/13	10/24/13 22:07	SRM	PE-EL2	1	BWJ1939

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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-10	<b>Client Sample Name:</b> JPL-GW, MW-19-4, 10/22/2013 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.17</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-10	<b>Client Sample Name:</b> JPL-GW, MW-19-4, 10/22/2013 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.31</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.090</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-10	<b>Client Sample Name:</b> JPL-GW, MW-19-4, 10/22/2013 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 18:05	MGC	MS-V5	1	BWJ1780

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-10	<b>Client Sample Name:</b> JPL-GW, MW-19-4, 10/22/2013 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 18:05	MGC	MS-V5	1	BWJ1780



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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-10	<b>Client Sample Name:</b> JPL-GW, MW-19-4, 10/22/2013 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.9	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/01/13	11/01/13 21:47	LS1	IC6	1	BWJ2514

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-10	<b>Client Sample Name:</b> JPL-GW, MW-19-4, 10/22/2013 12:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0018	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.5	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/22/13	10/23/13 00:03	LS1	KONE-1	1	BWJ1782
2	EPA-200.8	10/24/13	10/24/13 22:10	SRM	PE-EL2	1	BWJ1939

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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-11	<b>Client Sample Name:</b> JPL-GW, MW-19-3, 10/22/2013 1:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.14</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-11	<b>Client Sample Name:</b> JPL-GW, MW-19-3, 10/22/2013 1:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.32</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-11	<b>Client Sample Name:</b> JPL-GW, MW-19-3, 10/22/2013 1:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 18:28	MGC	MS-V5	1	BWJ1780

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Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-11	<b>Client Sample Name:</b> JPL-GW, MW-19-3, 10/22/2013 1:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 18:28	MGC	MS-V5	1	BWJ1780



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-11	<b>Client Sample Name:</b> JPL-GW, MW-19-3, 10/22/2013 1:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.4	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/01/13	11/04/13 11:41	LD1	IC6	1	BWJ2514



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-11	<b>Client Sample Name:</b> JPL-GW, MW-19-3, 10/22/2013 1:05:00PM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.6</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/22/13	10/23/13 00:03	LS1	KONE-1	1	BWJ1782
2	EPA-200.8	10/24/13	10/24/13 22:13	SRM	PE-EL2	1	BWJ1939

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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-12	<b>Client Sample Name:</b> JPL-GW, MW-19-2, 10/22/2013 1:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>0.23</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.61</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.18</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.23</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-12	<b>Client Sample Name:</b> JPL-GW, MW-19-2, 10/22/2013 1:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.74</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.49</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-12	<b>Client Sample Name:</b> JPL-GW, MW-19-2, 10/22/2013 1:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 23:23	MGC	MS-V5	1	BWJ1780



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-12	<b>Client Sample Name:</b> JPL-GW, MW-19-2, 10/22/2013 1:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 23:23	MGC	MS-V5	1	BWJ1780





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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-12	<b>Client Sample Name:</b> JPL-GW, MW-19-2, 10/22/2013 1:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	6.1	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/31/13 18:10	LS1	IC6	1	BWJ2106



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
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**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-12	<b>Client Sample Name:</b> JPL-GW, MW-19-2, 10/22/2013 1:35:00PM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/23/13	10/23/13 07:36	TDC	KONE-1	1	BWJ1784
2	EPA-200.8	10/24/13	10/24/13 18:56	SRM	PE-EL2	1	BWJ1942

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-13	<b>Client Sample Name:</b> JPL-GW, MW-19-1, 10/22/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-13	<b>Client Sample Name:</b> JPL-GW, MW-19-1, 10/22/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323038-13	<b>Client Sample Name:</b> JPL-GW, MW-19-1, 10/22/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 21:07	MGC	MS-V5	1	BWJ1781



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323038-13	<b>Client Sample Name:</b> JPL-GW, MW-19-1, 10/22/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/23/13	10/23/13 21:07	MGC	MS-V5	1	BWJ1781



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323038-13	<b>Client Sample Name:</b> JPL-GW, MW-19-1, 10/22/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	10/30/13	10/31/13 18:24	LS1	IC6	1	BWJ2106



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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323038-13	<b>Client Sample Name:</b> JPL-GW, MW-19-1, 10/22/2013 2:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/23/13	10/23/13 07:36	TDC	KONE-1	1	BWJ1784
2	EPA-200.8	10/24/13	10/24/13 17:48	SRM	PE-EL2	1	BWJ1942

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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1780</b>						
Benzene	BWJ1780-BLK1	ND	ug/L	0.50	0.083	
Bromobenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.13	
Bromochloromethane	BWJ1780-BLK1	ND	ug/L	0.50	0.24	
Bromodichloromethane	BWJ1780-BLK1	ND	ug/L	0.50	0.14	
Bromoform	BWJ1780-BLK1	ND	ug/L	0.50	0.27	
Bromomethane	BWJ1780-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.11	
sec-Butylbenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.15	
tert-Butylbenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.13	
Carbon tetrachloride	BWJ1780-BLK1	ND	ug/L	0.50	0.18	
Chlorobenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.093	
Chloroethane	BWJ1780-BLK1	ND	ug/L	0.50	0.14	
Chloroform	BWJ1780-BLK1	ND	ug/L	0.50	0.12	
Chloromethane	BWJ1780-BLK1	ND	ug/L	0.50	0.14	
2-Chlorotoluene	BWJ1780-BLK1	ND	ug/L	0.50	0.20	
4-Chlorotoluene	BWJ1780-BLK1	ND	ug/L	0.50	0.15	
Dibromochloromethane	BWJ1780-BLK1	ND	ug/L	0.50	0.13	
1,2-Dibromo-3-chloropropane	BWJ1780-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane	BWJ1780-BLK1	ND	ug/L	0.50	0.16	
Dibromomethane	BWJ1780-BLK1	ND	ug/L	0.50	0.24	
1,2-Dichlorobenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.072	
1,3-Dichlorobenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.15	
1,4-Dichlorobenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.062	
Dichlorodifluoromethane	BWJ1780-BLK1	ND	ug/L	0.50	0.099	
1,1-Dichloroethane	BWJ1780-BLK1	ND	ug/L	0.50	0.11	
1,2-Dichloroethane	BWJ1780-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	BWJ1780-BLK1	ND	ug/L	0.50	0.18	
cis-1,2-Dichloroethene	BWJ1780-BLK1	ND	ug/L	0.50	0.085	
trans-1,2-Dichloroethene	BWJ1780-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloropropane	BWJ1780-BLK1	ND	ug/L	0.50	0.13	
1,3-Dichloropropane	BWJ1780-BLK1	ND	ug/L	0.50	0.086	
2,2-Dichloropropane	BWJ1780-BLK1	ND	ug/L	0.50	0.13	
1,1-Dichloropropene	BWJ1780-BLK1	ND	ug/L	0.50	0.085	
cis-1,3-Dichloropropene	BWJ1780-BLK1	ND	ug/L	0.50	0.14	

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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1780</b>						
trans-1,3-Dichloropropene	BWJ1780-BLK1	ND	ug/L	0.50	0.079	
Ethylbenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.098	
Hexachlorobutadiene	BWJ1780-BLK1	ND	ug/L	0.50	0.17	
Isopropylbenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	BWJ1780-BLK1	ND	ug/L	0.50	0.12	
Methylene chloride	BWJ1780-BLK1	ND	ug/L	0.50	0.48	
Methyl t-butyl ether	BWJ1780-BLK1	ND	ug/L	0.50	0.11	
Naphthalene	BWJ1780-BLK1	ND	ug/L	0.50	0.36	
n-Propylbenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.11	
Styrene	BWJ1780-BLK1	ND	ug/L	0.50	0.068	
1,1,1,2-Tetrachloroethane	BWJ1780-BLK1	ND	ug/L	0.50	0.18	
1,1,2,2-Tetrachloroethane	BWJ1780-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	BWJ1780-BLK1	ND	ug/L	0.50	0.13	
Toluene	BWJ1780-BLK1	ND	ug/L	0.50	0.093	
1,2,3-Trichlorobenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.16	
1,2,4-Trichlorobenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.19	
1,1,1-Trichloroethane	BWJ1780-BLK1	ND	ug/L	0.50	0.11	
1,1,2-Trichloroethane	BWJ1780-BLK1	ND	ug/L	0.50	0.16	
Trichloroethene	BWJ1780-BLK1	ND	ug/L	0.50	0.085	
Trichlorofluoromethane	BWJ1780-BLK1	ND	ug/L	0.50	0.13	
1,2,3-Trichloropropane	BWJ1780-BLK1	ND	ug/L	1.0	0.24	
1,1,2-Trichloro-1,2,2-trifluoroethane	BWJ1780-BLK1	ND	ug/L	0.50	0.15	
1,2,4-Trimethylbenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.12	
1,3,5-Trimethylbenzene	BWJ1780-BLK1	ND	ug/L	0.50	0.12	
Vinyl chloride	BWJ1780-BLK1	ND	ug/L	0.50	0.12	
Acetone	BWJ1780-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BWJ1780-BLK1	ND	ug/L	5.0	1.2	
Allyl chloride	BWJ1780-BLK1	ND	ug/L	5.0	0.80	
t-Amyl Methyl ether	BWJ1780-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BWJ1780-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BWJ1780-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BWJ1780-BLK1	ND	ug/L	5.0	1.4	
Diethyl ether	BWJ1780-BLK1	ND	ug/L	2.0	0.21	
Ethyl methacrylate	BWJ1780-BLK1	ND	ug/L	4.0	0.97	

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**Reported:** 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
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**QC Batch ID: BWJ1780**

Ethyl t-butyl ether	BWJ1780-BLK1	ND	ug/L	0.50	0.18	
Hexachloroethane	BWJ1780-BLK1	ND	ug/L	0.50	0.16	
2-Hexanone	BWJ1780-BLK1	ND	ug/L	10	3.4	
Methacrylonitrile	BWJ1780-BLK1	ND	ug/L	10	1.7	
Methyl ethyl ketone	BWJ1780-BLK1	ND	ug/L	10	2.5	
Methyl iodide	BWJ1780-BLK1	ND	ug/L	2.0	0.47	
Methyl isobutyl ketone	BWJ1780-BLK1	ND	ug/L	10	2.1	
Methyl methacrylate	BWJ1780-BLK1	ND	ug/L	5.0	1.5	
Pentachloroethane	BWJ1780-BLK1	ND	ug/L	2.0	0.43	
Propionitrile	BWJ1780-BLK1	ND	ug/L	20	4.2	
Tetrahydrofuran	BWJ1780-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	BWJ1780-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BWJ1780-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	BWJ1780-BLK1	99.1	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWJ1780-BLK1	98.9	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWJ1780-BLK1	98.1	%	80 - 120 (LCL - UCL)		

**QC Batch ID: BWJ1781**

Benzene	BWJ1781-BLK1	ND	ug/L	0.50	0.083	
Bromobenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.13	
Bromochloromethane	BWJ1781-BLK1	ND	ug/L	0.50	0.24	
Bromodichloromethane	BWJ1781-BLK1	ND	ug/L	0.50	0.14	
Bromoform	BWJ1781-BLK1	ND	ug/L	0.50	0.27	
Bromomethane	BWJ1781-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.11	
sec-Butylbenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.15	
tert-Butylbenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.13	
Carbon tetrachloride	BWJ1781-BLK1	ND	ug/L	0.50	0.18	
Chlorobenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.093	
Chloroethane	BWJ1781-BLK1	ND	ug/L	0.50	0.14	
Chloroform	BWJ1781-BLK1	ND	ug/L	0.50	0.12	
Chloromethane	BWJ1781-BLK1	ND	ug/L	0.50	0.14	
2-Chlorotoluene	BWJ1781-BLK1	ND	ug/L	0.50	0.20	
4-Chlorotoluene	BWJ1781-BLK1	ND	ug/L	0.50	0.15	

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Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1781</b>						
Dibromochloromethane	BWJ1781-BLK1	ND	ug/L	0.50	0.13	
1,2-Dibromo-3-chloropropane	BWJ1781-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane	BWJ1781-BLK1	ND	ug/L	0.50	0.16	
Dibromomethane	BWJ1781-BLK1	ND	ug/L	0.50	0.24	
1,2-Dichlorobenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.072	
1,3-Dichlorobenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.15	
1,4-Dichlorobenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.062	
Dichlorodifluoromethane	BWJ1781-BLK1	ND	ug/L	0.50	0.099	
1,1-Dichloroethane	BWJ1781-BLK1	ND	ug/L	0.50	0.11	
1,2-Dichloroethane	BWJ1781-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	BWJ1781-BLK1	ND	ug/L	0.50	0.18	
cis-1,2-Dichloroethene	BWJ1781-BLK1	ND	ug/L	0.50	0.085	
trans-1,2-Dichloroethene	BWJ1781-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloropropane	BWJ1781-BLK1	ND	ug/L	0.50	0.13	
1,3-Dichloropropane	BWJ1781-BLK1	ND	ug/L	0.50	0.086	
2,2-Dichloropropane	BWJ1781-BLK1	ND	ug/L	0.50	0.13	
1,1-Dichloropropene	BWJ1781-BLK1	ND	ug/L	0.50	0.085	
cis-1,3-Dichloropropene	BWJ1781-BLK1	ND	ug/L	0.50	0.14	
trans-1,3-Dichloropropene	BWJ1781-BLK1	ND	ug/L	0.50	0.079	
Ethylbenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.098	
Hexachlorobutadiene	BWJ1781-BLK1	ND	ug/L	0.50	0.17	
Isopropylbenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	BWJ1781-BLK1	ND	ug/L	0.50	0.12	
Methylene chloride	BWJ1781-BLK1	ND	ug/L	0.50	0.48	
Methyl t-butyl ether	BWJ1781-BLK1	ND	ug/L	0.50	0.11	
Naphthalene	BWJ1781-BLK1	ND	ug/L	0.50	0.36	
n-Propylbenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.11	
Styrene	BWJ1781-BLK1	ND	ug/L	0.50	0.068	
1,1,1,2-Tetrachloroethane	BWJ1781-BLK1	ND	ug/L	0.50	0.18	
1,1,1,2,2-Tetrachloroethane	BWJ1781-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	BWJ1781-BLK1	ND	ug/L	0.50	0.13	
Toluene	BWJ1781-BLK1	ND	ug/L	0.50	0.093	
1,2,3-Trichlorobenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.16	
1,2,4-Trichlorobenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.19	

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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1781</b>						
1,1,1-Trichloroethane	BWJ1781-BLK1	ND	ug/L	0.50	0.11	
1,1,2-Trichloroethane	BWJ1781-BLK1	ND	ug/L	0.50	0.16	
Trichloroethene	BWJ1781-BLK1	ND	ug/L	0.50	0.085	
Trichlorofluoromethane	BWJ1781-BLK1	ND	ug/L	0.50	0.13	
1,2,3-Trichloropropane	BWJ1781-BLK1	ND	ug/L	1.0	0.24	
1,1,2-Trichloro-1,2,2-trifluoroethane	BWJ1781-BLK1	ND	ug/L	0.50	0.15	
1,2,4-Trimethylbenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.12	
1,3,5-Trimethylbenzene	BWJ1781-BLK1	ND	ug/L	0.50	0.12	
Vinyl chloride	BWJ1781-BLK1	ND	ug/L	0.50	0.12	
Acetone	BWJ1781-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BWJ1781-BLK1	ND	ug/L	5.0	1.2	
Allyl chloride	BWJ1781-BLK1	ND	ug/L	5.0	0.80	
t-Amyl Methyl ether	BWJ1781-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BWJ1781-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BWJ1781-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BWJ1781-BLK1	ND	ug/L	5.0	1.4	
Diethyl ether	BWJ1781-BLK1	ND	ug/L	2.0	0.21	
Ethyl methacrylate	BWJ1781-BLK1	ND	ug/L	4.0	0.97	
Ethyl t-butyl ether	BWJ1781-BLK1	ND	ug/L	0.50	0.18	
Hexachloroethane	BWJ1781-BLK1	ND	ug/L	0.50	0.16	
2-Hexanone	BWJ1781-BLK1	ND	ug/L	10	3.4	
Methacrylonitrile	BWJ1781-BLK1	ND	ug/L	10	1.7	
Methyl ethyl ketone	BWJ1781-BLK1	ND	ug/L	10	2.5	
Methyl iodide	BWJ1781-BLK1	ND	ug/L	2.0	0.47	
Methyl isobutyl ketone	BWJ1781-BLK1	ND	ug/L	10	2.1	
Methyl methacrylate	BWJ1781-BLK1	ND	ug/L	5.0	1.5	
Pentachloroethane	BWJ1781-BLK1	ND	ug/L	2.0	0.43	
Propionitrile	BWJ1781-BLK1	ND	ug/L	20	4.2	
Tetrahydrofuran	BWJ1781-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	BWJ1781-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BWJ1781-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	BWJ1781-BLK1	98.8	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWJ1781-BLK1	99.7	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWJ1781-BLK1	93.3	%	80 - 120 (LCL - UCL)		

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**Reported:** 11/07/2013 9:41  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ1780</b>										
Benzene	BWJ1780-BS1	LCS	24.860	25.000	ug/L	99.4		70 - 130		
Bromodichloromethane	BWJ1780-BS1	LCS	23.170	25.000	ug/L	92.7		70 - 130		
Chlorobenzene	BWJ1780-BS1	LCS	23.650	25.000	ug/L	94.6		70 - 130		
Chloroethane	BWJ1780-BS1	LCS	25.390	25.000	ug/L	102		70 - 130		
1,4-Dichlorobenzene	BWJ1780-BS1	LCS	24.930	25.000	ug/L	99.7		70 - 130		
1,1-Dichloroethane	BWJ1780-BS1	LCS	23.520	25.000	ug/L	94.1		70 - 130		
1,1-Dichloroethene	BWJ1780-BS1	LCS	23.520	25.000	ug/L	94.1		70 - 130		
Toluene	BWJ1780-BS1	LCS	24.430	25.000	ug/L	97.7		70 - 130		
Trichloroethene	BWJ1780-BS1	LCS	23.180	25.000	ug/L	92.7		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BWJ1780-BS1	LCS	9.4500	10.000	ug/L	94.5		75 - 125		
Toluene-d8 (Surrogate)	BWJ1780-BS1	LCS	9.7900	10.000	ug/L	97.9		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWJ1780-BS1	LCS	10.090	10.000	ug/L	101		80 - 120		
<b>QC Batch ID: BWJ1781</b>										
Benzene	BWJ1781-BS1	LCS	25.650	25.000	ug/L	103		70 - 130		
Bromodichloromethane	BWJ1781-BS1	LCS	24.410	25.000	ug/L	97.6		70 - 130		
Chlorobenzene	BWJ1781-BS1	LCS	24.050	25.000	ug/L	96.2		70 - 130		
Chloroethane	BWJ1781-BS1	LCS	26.000	25.000	ug/L	104		70 - 130		
1,4-Dichlorobenzene	BWJ1781-BS1	LCS	23.900	25.000	ug/L	95.6		70 - 130		
1,1-Dichloroethane	BWJ1781-BS1	LCS	24.060	25.000	ug/L	96.2		70 - 130		
1,1-Dichloroethene	BWJ1781-BS1	LCS	24.870	25.000	ug/L	99.5		70 - 130		
Toluene	BWJ1781-BS1	LCS	25.620	25.000	ug/L	102		70 - 130		
Trichloroethene	BWJ1781-BS1	LCS	26.910	25.000	ug/L	108		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BWJ1781-BS1	LCS	9.6900	10.000	ug/L	96.9		75 - 125		
Toluene-d8 (Surrogate)	BWJ1781-BS1	LCS	10.110	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWJ1781-BS1	LCS	9.9800	10.000	ug/L	99.8		80 - 120		

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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ1780</b>		Used client sample: Y - Description: MW-20-2, 10/22/2013 09:55								
Benzene	MS	1323038-07	ND	25.470	25.000	ug/L		102		70 - 130
	MSD	1323038-07	ND	25.780	25.000	ug/L	1.2	103	20	70 - 130
Bromodichloromethane	MS	1323038-07	ND	23.930	25.000	ug/L		95.7		70 - 130
	MSD	1323038-07	ND	25.090	25.000	ug/L	4.7	100	20	70 - 130
Chlorobenzene	MS	1323038-07	ND	24.860	25.000	ug/L		99.4		70 - 130
	MSD	1323038-07	ND	25.130	25.000	ug/L	1.1	101	20	70 - 130
Chloroethane	MS	1323038-07	ND	25.020	25.000	ug/L		100		70 - 130
	MSD	1323038-07	ND	26.240	25.000	ug/L	4.8	105	20	70 - 130
1,4-Dichlorobenzene	MS	1323038-07	ND	24.320	25.000	ug/L		97.3		70 - 130
	MSD	1323038-07	ND	24.670	25.000	ug/L	1.4	98.7	20	70 - 130
1,1-Dichloroethane	MS	1323038-07	ND	23.990	25.000	ug/L		96.0		70 - 130
	MSD	1323038-07	ND	24.310	25.000	ug/L	1.3	97.2	20	70 - 130
1,1-Dichloroethene	MS	1323038-07	ND	24.280	25.000	ug/L		97.1		70 - 130
	MSD	1323038-07	ND	24.910	25.000	ug/L	2.6	99.6	20	70 - 130
Toluene	MS	1323038-07	ND	25.370	25.000	ug/L		101		70 - 130
	MSD	1323038-07	ND	26.040	25.000	ug/L	2.6	104	20	70 - 130
Trichloroethene	MS	1323038-07	0.48000	24.620	25.000	ug/L		96.6		70 - 130
	MSD	1323038-07	0.48000	25.060	25.000	ug/L	1.8	98.3	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1323038-07	ND	9.0700	10.000	ug/L		90.7		75 - 125
	MSD	1323038-07	ND	9.1700	10.000	ug/L	1.1	91.7		75 - 125
Toluene-d8 (Surrogate)	MS	1323038-07	ND	9.8600	10.000	ug/L		98.6		80 - 120
	MSD	1323038-07	ND	9.9600	10.000	ug/L	1.0	99.6		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1323038-07	ND	9.9500	10.000	ug/L		99.5		80 - 120
	MSD	1323038-07	ND	10.020	10.000	ug/L	0.7	100		80 - 120

<b>QC Batch ID: BWJ1781</b>		Used client sample: Y - Description: MW-19-1, 10/22/2013 14:00								
Benzene	MS	1323038-13	ND	26.330	25.000	ug/L		105		70 - 130
	MSD	1323038-13	ND	25.660	25.000	ug/L	2.6	103	20	70 - 130
Bromodichloromethane	MS	1323038-13	ND	24.520	25.000	ug/L		98.1		70 - 130
	MSD	1323038-13	ND	24.670	25.000	ug/L	0.6	98.7	20	70 - 130
Chlorobenzene	MS	1323038-13	ND	25.160	25.000	ug/L		101		70 - 130
	MSD	1323038-13	ND	25.280	25.000	ug/L	0.5	101	20	70 - 130
Chloroethane	MS	1323038-13	ND	26.700	25.000	ug/L		107		70 - 130
	MSD	1323038-13	ND	25.810	25.000	ug/L	3.4	103	20	70 - 130
1,4-Dichlorobenzene	MS	1323038-13	ND	24.890	25.000	ug/L		99.6		70 - 130
	MSD	1323038-13	ND	24.790	25.000	ug/L	0.4	99.2	20	70 - 130
1,1-Dichloroethane	MS	1323038-13	ND	24.320	25.000	ug/L		97.3		70 - 130
	MSD	1323038-13	ND	24.480	25.000	ug/L	0.7	97.9	20	70 - 130

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Reported: 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWJ1781</b>		Used client sample: Y - Description: MW-19-1, 10/22/2013 14:00								
1,1-Dichloroethene	MS	1323038-13	ND	25.060	25.000	ug/L		100	70 - 130	
	MSD	1323038-13	ND	24.970	25.000	ug/L	0.4	99.9	20	70 - 130
Toluene	MS	1323038-13	ND	26.040	25.000	ug/L		104	70 - 130	
	MSD	1323038-13	ND	25.790	25.000	ug/L	1.0	103	20	70 - 130
Trichloroethene	MS	1323038-13	ND	24.050	25.000	ug/L		96.2	70 - 130	
	MSD	1323038-13	ND	24.140	25.000	ug/L	0.4	96.6	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1323038-13	ND	9.4400	10.000	ug/L		94.4	75 - 125	
	MSD	1323038-13	ND	9.4500	10.000	ug/L	0.1	94.5		75 - 125
Toluene-d8 (Surrogate)	MS	1323038-13	ND	9.9500	10.000	ug/L		99.5	80 - 120	
	MSD	1323038-13	ND	10.020	10.000	ug/L	0.7	100		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1323038-13	ND	9.9800	10.000	ug/L		99.8	80 - 120	
	MSD	1323038-13	ND	10.010	10.000	ug/L	0.3	100		80 - 120

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**Reported:** 11/07/2013 9:41  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
-------------	--------------	-----------	-------	-----	-----	-----------

**QC Batch ID: BWJ1780**

Chloroacetonitrile	BWJ1780-BLK1	0	ug/L			
1-Chlorobutane	BWJ1780-BLK1	0	ug/L			
1,1-Dichloropropanone	BWJ1780-BLK1	0	ug/L			
Methyl acrylate	BWJ1780-BLK1	0	ug/L			
Nitrobenzene	BWJ1780-BLK1	0	ug/L			
2-Nitropropane	BWJ1780-BLK1	0	ug/L			

**QC Batch ID: BWJ1781**

Chloroacetonitrile	BWJ1781-BLK1	0	ug/L			
1-Chlorobutane	BWJ1781-BLK1	0	ug/L			
1,1-Dichloropropanone	BWJ1781-BLK1	0	ug/L			
Methyl acrylate	BWJ1781-BLK1	0	ug/L			
Nitrobenzene	BWJ1781-BLK1	0	ug/L			
2-Nitropropane	BWJ1781-BLK1	0	ug/L			



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**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2106</b>						
Perchlorate	BWJ2106-BLK1	ND	ug/L	4.0	0.81	
<b>QC Batch ID: BWJ2414</b>						
Perchlorate	BWJ2414-BLK1	ND	ug/L	4.0	0.81	
<b>QC Batch ID: BWJ2514</b>						
Perchlorate	BWJ2514-BLK1	ND	ug/L	4.0	0.81	



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Project: JPL- GW Monitoring Wells  
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## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2106</b>										
Perchlorate	BWJ2106-BS1	LCS	9.5021	10.000	ug/L	95.0		85	115	
<b>QC Batch ID: BWJ2414</b>										
Perchlorate	BWJ2414-BS1	LCS	10.156	10.000	ug/L	102		85	115	
<b>QC Batch ID: BWJ2514</b>										
Perchlorate	BWJ2514-BS1	LCS	10.202	10.000	ug/L	102		85	115	



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Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2106</b>		Used client sample: N								
Perchlorate	DUP	1322922-03	9.5948	10.763		ug/L	11.5		15	
	MS	1322922-03	9.5948	20.658	10.101	ug/L		110		80 - 120
	MSD	1322922-03	9.5948	21.183	10.101	ug/L	2.5	115	15	80 - 120
<b>QC Batch ID: BWJ2414</b>		Used client sample: Y - Description: FBROUT, 10/31/2013 12:55								
Perchlorate	DUP	1323746-05	ND	ND		ug/L			15	
	MS	1323746-05	ND	8.3054	10.101	ug/L		82.2		80 - 120
	MSD	1323746-05	ND	8.2389	10.101	ug/L	0.8	81.6	15	80 - 120
<b>QC Batch ID: BWJ2514</b>		Used client sample: Y - Description: MW-20-2, 10/22/2013 09:55								
Perchlorate	DUP	1323038-07	2.3440	2.3540		ug/L	0.4		15	J
	MS	1323038-07	2.3440	11.525	10.101	ug/L		90.9		80 - 120
	MSD	1323038-07	2.3440	11.208	10.101	ug/L	2.8	87.8	15	80 - 120

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**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1782</b>						
Hexavalent Chromium	BWJ1782-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWJ1784</b>						
Hexavalent Chromium	BWJ1784-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWJ1939</b>						
Total Recoverable Chromium	BWJ1939-BLK1	ND	ug/L	3.0	0.50	
<b>QC Batch ID: BWJ1942</b>						
Total Recoverable Chromium	BWJ1942-BLK1	ND	ug/L	3.0	0.50	



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### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ1782</b>										
Hexavalent Chromium	BWJ1782-BS1	LCS	0.048771	0.050000	mg/L	97.5		85 - 115		
<b>QC Batch ID: BWJ1784</b>										
Hexavalent Chromium	BWJ1784-BS1	LCS	0.051827	0.050000	mg/L	104		85 - 115		
<b>QC Batch ID: BWJ1939</b>										
Total Recoverable Chromium	BWJ1939-BS1	LCS	42.409	40.000	ug/L	106		85 - 115		
<b>QC Batch ID: BWJ1942</b>										
Total Recoverable Chromium	BWJ1942-BS1	LCS	43.224	40.000	ug/L	108		85 - 115		

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**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ1782</b>		Used client sample: Y - Description: MW-20-2, 10/22/2013 09:55								
Hexavalent Chromium	DUP	1323038-07	ND	ND		mg/L			10	
	MS	1323038-07	ND	0.052554	0.052632	mg/L		99.9		85 - 115
	MSD	1323038-07	ND	0.052735	0.052632	mg/L	0.3	100	10	85 - 115
<b>QC Batch ID: BWJ1784</b>		Used client sample: Y - Description: MW-19-2, 10/22/2013 13:35								
Hexavalent Chromium	DUP	1323038-12	ND	ND		mg/L			10	
	MS	1323038-12	ND	0.048608	0.052632	mg/L		92.4		85 - 115
	MSD	1323038-12	ND	0.048688	0.052632	mg/L	0.2	92.5	10	85 - 115
<b>QC Batch ID: BWJ1939</b>		Used client sample: Y - Description: MW-20-2, 10/22/2013 09:55								
Total Recoverable Chromium	DUP	1323038-07	ND	ND		ug/L			20	
	MS	1323038-07	ND	38.570	40.000	ug/L		96.4		70 - 130
	MSD	1323038-07	ND	38.555	40.000	ug/L	0.0	96.4	20	70 - 130
<b>QC Batch ID: BWJ1942</b>		Used client sample: Y - Description: MW-19-1, 10/22/2013 14:00								
Total Recoverable Chromium	DUP	1323038-13	2.3100	ND		ug/L			20	
	MS	1323038-13	2.3100	41.049	40.000	ug/L		96.8		70 - 130
	MSD	1323038-13	2.3100	40.861	40.000	ug/L	0.5	96.4	20	70 - 130

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**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A40 Initial calibration linearity criteria not met.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.
- V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.





Date of Report: 11/07/2013

David Conner

Battelle MHTS

505 King Ave.

Columbus, OH 43201

Project: JPL- GW Monitoring Wells

BC Work Order: 1323134

Invoice ID: B159450

Enclosed are the results of analyses for samples received by the laboratory on 10/23/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



# Table of Contents

## Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	8

## Sample Results

<b>1323134-01 - TB-3-10-23-13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	13
Volatile Organic Analysis (EPA Method 524.2) TICs.....	16
<b>1323134-02 - EB-3-10-23-13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	17
Volatile Organic Analysis (EPA Method 524.2) TICs.....	20
Water Analysis (General Chemistry).....	21
Metals Analysis.....	22
<b>1323134-03 - MW-23-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	23
Volatile Organic Analysis (EPA Method 524.2) TICs.....	26
Water Analysis (General Chemistry).....	27
Metals Analysis.....	28
<b>1323134-04 - MW-23-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	29
Volatile Organic Analysis (EPA Method 524.2) TICs.....	32
Water Analysis (General Chemistry).....	33
Metals Analysis.....	34
<b>1323134-05 - MW-23-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	35
Volatile Organic Analysis (EPA Method 524.2) TICs.....	38
Water Analysis (General Chemistry).....	39
Metals Analysis.....	40
<b>1323134-06 - MW-23-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	41
Volatile Organic Analysis (EPA Method 524.2) TICs.....	44
Water Analysis (General Chemistry).....	45
Metals Analysis.....	46
<b>1323134-07 - MW-23-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	47
Volatile Organic Analysis (EPA Method 524.2) TICs.....	50
Water Analysis (General Chemistry).....	51
Metals Analysis.....	52
<b>1323134-08 - MW-14-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	53
Volatile Organic Analysis (EPA Method 524.2) TICs.....	56
Water Analysis (General Chemistry).....	57
Metals Analysis.....	58
<b>1323134-09 - MW-14-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	59
Volatile Organic Analysis (EPA Method 524.2) TICs.....	62
Water Analysis (General Chemistry).....	63
Metals Analysis.....	64
<b>1323134-10 - MW-14-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	65
Volatile Organic Analysis (EPA Method 524.2) TICs.....	68
Water Analysis (General Chemistry).....	69
Metals Analysis.....	70
<b>1323134-11 - MW-14-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	71



## Table of Contents

Volatile Organic Analysis (EPA Method 524.2) TICs.....	74
Water Analysis (General Chemistry).....	75
Metals Analysis.....	76
<b>1323134-12 - MW-14-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	77
Volatile Organic Analysis (EPA Method 524.2) TICs.....	80
Water Analysis (General Chemistry).....	81
Metals Analysis.....	82
<b>1323134-13 - DUPE-2-4Q13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	83
Volatile Organic Analysis (EPA Method 524.2) TICs.....	86
Water Analysis (General Chemistry).....	87
Metals Analysis.....	88
<b>Quality Control Reports</b>	
<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	89
Laboratory Control Sample.....	92
Precision and Accuracy.....	93
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	94
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	95
Laboratory Control Sample.....	96
Precision and Accuracy.....	97
<b>Metals Analysis</b>	
Method Blank Analysis.....	98
Laboratory Control Sample.....	99
Precision and Accuracy.....	100
<b>Notes</b>	
Notes and Definitions.....	101



Chain of Custody Form

Page 1 of 2

**Required Fields**

Report To: **Battelle MHTS**  
 Client: **David Conner**  
 Attn: **David Conner**  
 Street Address: **505 King Ave.**  
 City: **Columbus** State: **OH** Zip: **43201**  
 Phone#: **614 424 5489** Fax#: **614 458 5489**  
 Email Address: **connerd@battelle.org**  
 Submission #: **3-23134**

Project Description: **JPL-GW Monitoring**  
 Project Code: **4Q13**  
 Sampler (s): **Blaine Tech**

Sample #	Sample Description	Date	Time	Matrix*
-1	IB-3-10/23/13	10-23-13	0645	AQ
-2	EB-3-10/23/13		0650	
-3	MW-23-5		0730	
-4	MW-23-4		0800	
-5	MW-23-3		0905	
-6	MW-23-2		0945	
-7	MW-23-1		1010	
-8	MW-14-5		1130	
-9	MW-14-4		1215	
-10	MW-14-3		1250	
-11	MW-14-2		1325	

**Analysis Requested**

Analysis	Requested
VOCs EPA 524.2	X
Total Cr 200.8 (ug/L)	X
Perchlorate by 314.0	X
Hexavalent Cr (7196) (mg/L)	X
Chloride, Nitrate, Sulfate	X
Orthophosphate 365.1	X
Nitrite 353.2	X
CHLORINE	X
AMMONIUM	X
SUB-CUT	X
SHORT HOLDING TIME	X
Cr <sup>6+</sup> NO <sub>2</sub> NO <sub>3</sub> OP SS	X
DO Cl <sub>2</sub> BOD MRAS COI	X
Level IV	X

**Billing**  
 Client: **SAME**  
 Attn:  
 Address:  
 City:  
 State:  
 Zip:  
 Are there any tests with holding times? less than or equal to 48 hours?  
 Yes  No  
 \*Standard Turnaround = 10  
 Notes

**Matrix Types:** S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

Lab TAT Approval: \_\_\_\_\_ \* Additional Charges May Apply

**Comments:**  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR QC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (inform QC)

**Cost Center:**  
 1. Relinquished By: \_\_\_\_\_ Date: 10-23-13 Time: 1630  
 2. Relinquished By: \_\_\_\_\_ Date: 10-23-13 Time: 1645  
 3. Relinquished By: \_\_\_\_\_ Date: 10-23-13 Time: 1645

**Global ID:**  
 1. Received By: \_\_\_\_\_ Date: 10-23-13 Time: 1630  
 2. Received By: \_\_\_\_\_ Date: 10-23-13 Time: 1645  
 3. Received By: \_\_\_\_\_ Date: 10-23-13 Time: 1645

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-1918 www.bclabs.com

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Chain of Custody Form

Page 2 of 2

**Client:** Baille MHTS  
**Attn:** David Conner  
**Street Address:** 505 King Ave.  
**City:** Columbus **State:** OH **Zip:** 43201  
**Phone:** (614) 424-5489 **Fax:** (614) 450-5489  
**Email Address:** connerd@baille.org  
**Submission #:** 13-23134

**Project Description:** JPL-GW Monitoring  
**Project Code:** 4Q13  
**Sampler(s):** Blaine Tech

**Analysis Requested:**  
 Total Cr 200.8 (ug/L)   
 Perchlorate by 314.0   
 Hexavalent Cr (7196) (mg/L)   
 Chloride, Nitrate, Sulfate   
 Orthophosphate 365.1   
 Nitrite 353.2

**Matrix:**  S = Soil  SL = Sludge  DW = Drinking Water  WW = Wastewater  GW = Groundwater  L = Liquid  M = Miscellaneous  O = Other

**Turnaround # of working days:**  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

**Lab TAT Approval:** \_\_\_\_\_

**Matrix Types:** S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

**Global ID:** \_\_\_\_\_

**1. Relinquished By:** [Signature] **Date:** 10/23/13 **Time:** 1645  
**2. Relinquished By:** [Signature] **Date:** 10/23/13 **Time:** 1645  
**3. Relinquished By:** [Signature] **Date:** 10/23/13 **Time:** 1645

**Cost Center:** \_\_\_\_\_

**1. Relinquished By:** [Signature] **Date:** 10/23/13 **Time:** 1645  
**2. Relinquished By:** [Signature] **Date:** 10/23/13 **Time:** 1645  
**3. Relinquished By:** [Signature] **Date:** 10/23/13 **Time:** 1645

**Comments:**  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR GC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (inform GC)

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Chain of Custody and Cooler Receipt Form for 1323134 Page 3 of 4

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

Submission #: 13-23134

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. 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: 0.97. Container: VOA. Thermometer ID: 207. Date/Time: 10/23/13. Analyst Init: KLG 2008. Temperature: (A) 2-3 °C / (C) 2-2 °C.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT GENERAL MINERAL, PT PE UNPRESERVED, etc.

Comments: KLG Date/Time: 10/23/13 @ 2:15



Chain of Custody and Cooler Receipt Form for 1323134 Page 4 of 4

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 4 of 4

Submission #: 13-23134

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. 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: 0.97. Container: VOA. Thermometer ID: 207. Date/Time: 10/23/13. Analyst Init: KLG 2000. Temperature: (A) 2-3 °C / (C) 2-2 °C.

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT GENERAL MINERAL, PT PE UNPRESERVED, etc.

Comments:



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323134-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-3-10-23-13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/23/2013 19:55 <b>Sampling Date:</b> 10/23/2013 06:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-3-10-23-13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323134-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-3-10-23-13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/23/2013 19:55 <b>Sampling Date:</b> 10/23/2013 06:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-3-10-23-13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323134-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-23-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/23/2013 19:55 <b>Sampling Date:</b> 10/23/2013 07:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-23-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323134-04</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 10/23/2013 19:55
	<b>Project Number:</b> JPL-GW	<b>Sampling Date:</b> 10/23/2013 08:00
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MW-23-4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Blaine Tech of BAT	<b>Sample Type:</b> Aqueous
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): MW-23-4
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:

<b>1323134-05</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 10/23/2013 19:55
	<b>Project Number:</b> JPL-GW	<b>Sampling Date:</b> 10/23/2013 09:05
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MW-23-3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Blaine Tech of BAT	<b>Sample Type:</b> Aqueous
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): MW-23-3
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:

<b>1323134-06</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 10/23/2013 19:55
	<b>Project Number:</b> JPL-GW	<b>Sampling Date:</b> 10/23/2013 09:45
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MW-23-2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Blaine Tech of BAT	<b>Sample Type:</b> Aqueous
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): MW-23-2
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323134-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-23-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/23/2013 19:55 <b>Sampling Date:</b> 10/23/2013 10:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-23-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323134-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-14-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/23/2013 19:55 <b>Sampling Date:</b> 10/23/2013 11:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-14-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323134-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-14-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/23/2013 19:55 <b>Sampling Date:</b> 10/23/2013 12:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-14-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323134-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-14-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/23/2013 19:55 <b>Sampling Date:</b> 10/23/2013 12:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-14-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323134-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-14-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/23/2013 19:55 <b>Sampling Date:</b> 10/23/2013 13:25 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-14-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323134-12</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-14-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/23/2013 19:55 <b>Sampling Date:</b> 10/23/2013 14:05 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-14-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323134-13</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 10/23/2013 19:55
	<b>Project Number:</b> JPL-GW	<b>Sampling Date:</b> 10/23/2013 14:15
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> DUPE-2-4Q13	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Blaine Tech of BAT	<b>Sample Type:</b> Aqueous
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): DUPE-2-4Q13
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-01	<b>Client Sample Name:</b> JPL-GW, TB-3-10-23-13, 10/23/2013 6:45:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-01	<b>Client Sample Name:</b> JPL-GW, TB-3-10-23-13, 10/23/2013 6:45:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-01	<b>Client Sample Name:</b> JPL-GW, TB-3-10-23-13, 10/23/2013 6:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 13:05	MGC	MS-V5	1	BWJ1881



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-01	<b>Client Sample Name:</b> JPL-GW, TB-3-10-23-13, 10/23/2013 6:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 13:05	MGC	MS-V5	1	BWJ1881





Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-02	<b>Client Sample Name:</b> JPL-GW, EB-3-10-23-13, 10/23/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-02	<b>Client Sample Name:</b> JPL-GW, EB-3-10-23-13, 10/23/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-02	<b>Client Sample Name:</b> JPL-GW, EB-3-10-23-13, 10/23/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 13:27	MGC	MS-V5	1	BWJ1881



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-02	<b>Client Sample Name:</b> JPL-GW, EB-3-10-23-13, 10/23/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 13:27	MGC	MS-V5	1	BWJ1881



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-02	<b>Client Sample Name:</b> JPL-GW, EB-3-10-23-13, 10/23/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/05/13 22:06	LD1	IC6	1	BWK0466



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-02	<b>Client Sample Name:</b> JPL-GW, EB-3-10-23-13, 10/23/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/23/13	10/23/13 23:17	LS1	KONE-1	1	BWJ1878
2	EPA-200.8	10/25/13	10/25/13 21:14	JSS	PE-EL2	1	BWJ2013



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-03	<b>Client Sample Name:</b> JPL-GW, MW-23-5, 10/23/2013 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1323134-03		Client Sample Name: JPL-GW, MW-23-5, 10/23/2013 7:30:00AM, Blaine Tech						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
<b>Ethylbenzene</b>	<b>0.10</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.098</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.35</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.068</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.51</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.38</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-03	<b>Client Sample Name:</b> JPL-GW, MW-23-5, 10/23/2013 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 13:50	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-03	<b>Client Sample Name:</b> JPL-GW, MW-23-5, 10/23/2013 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 13:50	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-03	<b>Client Sample Name:</b> JPL-GW, MW-23-5, 10/23/2013 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/05/13 23:01	LD1	IC6	1	BWK0466



Battelle MHTS  
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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-03	<b>Client Sample Name:</b> JPL-GW, MW-23-5, 10/23/2013 7:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/23/13	10/23/13 23:17	LS1	KONE-1	1	BWJ1878
2	EPA-200.8	10/25/13	10/25/13 21:17	JSS	PE-EL2	1	BWJ2013

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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-04	<b>Client Sample Name:</b> JPL-GW, MW-23-4, 10/23/2013 8:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-04	<b>Client Sample Name:</b> JPL-GW, MW-23-4, 10/23/2013 8:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-04	<b>Client Sample Name:</b> JPL-GW, MW-23-4, 10/23/2013 8:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 14:13	MGC	MS-V5	1	BWJ1881



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-04	<b>Client Sample Name:</b> JPL-GW, MW-23-4, 10/23/2013 8:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 14:13	MGC	MS-V5	1	BWJ1881





Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-04	<b>Client Sample Name:</b> JPL-GW, MW-23-4, 10/23/2013 8:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/05/13 23:15	LD1	IC6	1	BWK0466



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-04	<b>Client Sample Name:</b> JPL-GW, MW-23-4, 10/23/2013 8:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0026	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>ND</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/23/13	10/23/13 23:17	LS1	KONE-1	1	BWJ1878
2	EPA-200.8	10/25/13	10/25/13 21:20	JSS	PE-EL2	1	BWJ2013

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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-05	<b>Client Sample Name:</b> JPL-GW, MW-23-3, 10/23/2013 9:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-05	<b>Client Sample Name:</b> JPL-GW, MW-23-3, 10/23/2013 9:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-05	<b>Client Sample Name:</b> JPL-GW, MW-23-3, 10/23/2013 9:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 14:35	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-05	<b>Client Sample Name:</b> JPL-GW, MW-23-3, 10/23/2013 9:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 14:35	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-05	<b>Client Sample Name:</b> JPL-GW, MW-23-3, 10/23/2013 9:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.1	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/05/13 23:56	LD1	IC6	1	BWK0466



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-05	<b>Client Sample Name:</b> JPL-GW, MW-23-3, 10/23/2013 9:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0029	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	2.7	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/23/13	10/24/13 00:00	LS1	KONE-1	1	BWJ1878
2	EPA-200.8	10/28/13	10/28/13 23:26	JSS	PE-EL2	1	BWJ2163





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Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-06	<b>Client Sample Name:</b> JPL-GW, MW-23-2, 10/23/2013 9:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.47</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.17</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-06	<b>Client Sample Name:</b> JPL-GW, MW-23-2, 10/23/2013 9:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.32</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.75</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-06	<b>Client Sample Name:</b> JPL-GW, MW-23-2, 10/23/2013 9:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 14:58	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-06	<b>Client Sample Name:</b> JPL-GW, MW-23-2, 10/23/2013 9:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 14:58	MGC	MS-V5	1	BWJ1881

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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-06	<b>Client Sample Name:</b> JPL-GW, MW-23-2, 10/23/2013 9:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	4.1	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/06/13 00:10	LD1	IC6	1	BWK0466

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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-06	<b>Client Sample Name:</b> JPL-GW, MW-23-2, 10/23/2013 9:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0012	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	0.91	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/23/13	10/23/13 23:17	LS1	KONE-1	1	BWJ1878
2	EPA-200.8	10/28/13	10/29/13 01:09	JSS	PE-EL2	1	BWJ2163



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-07	<b>Client Sample Name:</b> JPL-GW, MW-23-1, 10/23/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.39</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-07	<b>Client Sample Name:</b> JPL-GW, MW-23-1, 10/23/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.29</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>2.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-07	<b>Client Sample Name:</b> JPL-GW, MW-23-1, 10/23/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 15:21	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-07	<b>Client Sample Name:</b> JPL-GW, MW-23-1, 10/23/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 15:21	MGC	MS-V5	1	BWJ1881



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Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-07	<b>Client Sample Name:</b> JPL-GW, MW-23-1, 10/23/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	4.7	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/06/13 00:24	LD1	IC6	1	BWK0466



Battelle MHTS  
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Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-07	<b>Client Sample Name:</b> JPL-GW, MW-23-1, 10/23/2013 10:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.0</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/23/13	10/23/13 23:23	LS1	KONE-1	1	BWJ1878
2	EPA-200.8	10/28/13	10/29/13 01:13	JSS	PE-EL2	1	BWJ2163

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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-08	<b>Client Sample Name:</b> JPL-GW, MW-14-5, 10/23/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-08	<b>Client Sample Name:</b> JPL-GW, MW-14-5, 10/23/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-08	<b>Client Sample Name:</b> JPL-GW, MW-14-5, 10/23/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 15:44	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-08	<b>Client Sample Name:</b> JPL-GW, MW-14-5, 10/23/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 15:44	MGC	MS-V5	1	BWJ1881





Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-08	<b>Client Sample Name:</b> JPL-GW, MW-14-5, 10/23/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/06/13 00:38	LD1	IC6	1	BWK0466



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-08	<b>Client Sample Name:</b> JPL-GW, MW-14-5, 10/23/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/23/13	10/23/13	23:23	LS1	KONE-1	1	BWJ1878
2	EPA-200.8	10/28/13	10/29/13	01:16	JSS	PE-EL2	1	BWJ2163



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Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-09	<b>Client Sample Name:</b> JPL-GW, MW-14-4, 10/23/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.18</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
<b>1,2-Dichlorobenzene</b>	<b>0.080</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.072</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.12</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-09	<b>Client Sample Name:</b> JPL-GW, MW-14-4, 10/23/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.15</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.19</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-09	<b>Client Sample Name:</b> JPL-GW, MW-14-4, 10/23/2013 12:10:00PM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 16:06	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-09	<b>Client Sample Name:</b> JPL-GW, MW-14-4, 10/23/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 16:06	MGC	MS-V5	1	BWJ1881



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-09	<b>Client Sample Name:</b> JPL-GW, MW-14-4, 10/23/2013 12:10:00PM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	5.3	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/06/13 00:52	LD1	IC6	1	BWK0466



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-09	<b>Client Sample Name:</b> JPL-GW, MW-14-4, 10/23/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0019	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/23/13	10/23/13	23:41	LS1	KONE-1	1	BWJ1878
2	EPA-200.8	10/28/13	10/29/13	01:19	JSS	PE-EL2	1	BWJ2163





Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-10	<b>Client Sample Name:</b> JPL-GW, MW-14-3, 10/23/2013 12:50:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.52</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.29</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.15</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-10	<b>Client Sample Name:</b> JPL-GW, MW-14-3, 10/23/2013 12:50:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.48</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>2.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-10	<b>Client Sample Name:</b> JPL-GW, MW-14-3, 10/23/2013 12:50:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 16:29	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-10	<b>Client Sample Name:</b> JPL-GW, MW-14-3, 10/23/2013 12:50:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 16:29	MGC	MS-V5	1	BWJ1881

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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-10	<b>Client Sample Name:</b> JPL-GW, MW-14-3, 10/23/2013 12:50:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	5.7	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/06/13 17:32	OLH	IC6	1	BWK0466



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-10	<b>Client Sample Name:</b> JPL-GW, MW-14-3, 10/23/2013 12:50:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/23/13	10/23/13	23:23	LS1	KONE-1	1	BWJ1878
2	EPA-200.8	10/28/13	10/29/13	01:22	JSS	PE-EL2	1	BWJ2163

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Columbus, OH 43201

Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-11	<b>Client Sample Name:</b> JPL-GW, MW-14-2, 10/23/2013 1:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.49</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.13</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.25</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
<b>trans-1,2-Dichloroethene</b>	<b>0.17</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.15</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-11	<b>Client Sample Name:</b> JPL-GW, MW-14-2, 10/23/2013 1:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.30</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>4.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-11	<b>Client Sample Name:</b> JPL-GW, MW-14-2, 10/23/2013 1:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 16:52	MGC	MS-V5	1	BWJ1881



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-11	<b>Client Sample Name:</b> JPL-GW, MW-14-2, 10/23/2013 1:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 16:52	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-11	<b>Client Sample Name:</b> JPL-GW, MW-14-2, 10/23/2013 1:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/06/13 01:19	LD1	IC6	1	BWK0466



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-11	<b>Client Sample Name:</b> JPL-GW, MW-14-2, 10/23/2013 1:25:00PM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/23/13	10/23/13	23:23	LS1	KONE-1	1	BWJ1878
2	EPA-200.8	10/28/13	10/29/13	01:25	JSS	PE-EL2	1	BWJ2163

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Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-12	<b>Client Sample Name:</b> JPL-GW, MW-14-1, 10/23/2013 2:05:00PM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.50</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.090</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-12	<b>Client Sample Name:</b> JPL-GW, MW-14-1, 10/23/2013 2:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
<b>Methyl t-butyl ether</b>	<b>0.40</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.18</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>1.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-12	<b>Client Sample Name:</b> JPL-GW, MW-14-1, 10/23/2013 2:05:00PM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 17:14	MGC	MS-V5	1	BWJ1881



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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-12	<b>Client Sample Name:</b> JPL-GW, MW-14-1, 10/23/2013 2:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 17:14	MGC	MS-V5	1	BWJ1881





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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-12	<b>Client Sample Name:</b> JPL-GW, MW-14-1, 10/23/2013 2:05:00PM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	4.0	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/06/13 18:00	OLH	IC6	1	BWK0467

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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-12	<b>Client Sample Name:</b> JPL-GW, MW-14-1, 10/23/2013 2:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.76</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/24/13	10/24/13 07:41	TDC	KONE-1	1	BWJ1879
2	EPA-200.8	10/28/13	10/29/13 01:29	JSS	PE-EL2	1	BWJ2163



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Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-13	<b>Client Sample Name:</b> JPL-GW, DUPE-2-4Q13, 10/23/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.41</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-13	<b>Client Sample Name:</b> JPL-GW, DUPE-2-4Q13, 10/23/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
<b>Methyl t-butyl ether</b>	<b>0.38</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.14</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>1.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323134-13	<b>Client Sample Name:</b> JPL-GW, DUPE-2-4Q13, 10/23/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 17:37	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323134-13	<b>Client Sample Name:</b> JPL-GW, DUPE-2-4Q13, 10/23/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/24/13	10/24/13 17:37	MGC	MS-V5	1	BWJ1881



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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323134-13	<b>Client Sample Name:</b> JPL-GW, DUPE-2-4Q13, 10/23/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.7	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/05/13	11/06/13 03:10	LD1	IC6	1	BWK0467

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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323134-13	<b>Client Sample Name:</b> JPL-GW, DUPE-2-4Q13, 10/23/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.0</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/24/13	10/24/13 07:41	TDC	KONE-1	1	BWJ1879
2	EPA-200.8	10/28/13	10/29/13 01:32	JSS	PE-EL2	1	BWJ2163





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Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1881</b>						
Benzene	BWJ1881-BLK1	ND	ug/L	0.50	0.083	
Bromobenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.13	
Bromochloromethane	BWJ1881-BLK1	ND	ug/L	0.50	0.24	
Bromodichloromethane	BWJ1881-BLK1	ND	ug/L	0.50	0.14	
Bromoform	BWJ1881-BLK1	ND	ug/L	0.50	0.27	
Bromomethane	BWJ1881-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.11	
sec-Butylbenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.15	
tert-Butylbenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.13	
Carbon tetrachloride	BWJ1881-BLK1	ND	ug/L	0.50	0.18	
Chlorobenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.093	
Chloroethane	BWJ1881-BLK1	ND	ug/L	0.50	0.14	
Chloroform	BWJ1881-BLK1	ND	ug/L	0.50	0.12	
Chloromethane	BWJ1881-BLK1	ND	ug/L	0.50	0.14	
2-Chlorotoluene	BWJ1881-BLK1	ND	ug/L	0.50	0.20	
4-Chlorotoluene	BWJ1881-BLK1	ND	ug/L	0.50	0.15	
Dibromochloromethane	BWJ1881-BLK1	ND	ug/L	0.50	0.13	
1,2-Dibromo-3-chloropropane	BWJ1881-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane	BWJ1881-BLK1	ND	ug/L	0.50	0.16	
Dibromomethane	BWJ1881-BLK1	ND	ug/L	0.50	0.24	
1,2-Dichlorobenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.072	
1,3-Dichlorobenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.15	
1,4-Dichlorobenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.062	
Dichlorodifluoromethane	BWJ1881-BLK1	ND	ug/L	0.50	0.099	
1,1-Dichloroethane	BWJ1881-BLK1	ND	ug/L	0.50	0.11	
1,2-Dichloroethane	BWJ1881-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	BWJ1881-BLK1	ND	ug/L	0.50	0.18	
cis-1,2-Dichloroethene	BWJ1881-BLK1	ND	ug/L	0.50	0.085	
trans-1,2-Dichloroethene	BWJ1881-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloropropane	BWJ1881-BLK1	ND	ug/L	0.50	0.13	
1,3-Dichloropropane	BWJ1881-BLK1	ND	ug/L	0.50	0.086	
2,2-Dichloropropane	BWJ1881-BLK1	ND	ug/L	0.50	0.13	
1,1-Dichloropropene	BWJ1881-BLK1	ND	ug/L	0.50	0.085	
cis-1,3-Dichloropropene	BWJ1881-BLK1	ND	ug/L	0.50	0.14	

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Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1881</b>						
trans-1,3-Dichloropropene	BWJ1881-BLK1	ND	ug/L	0.50	0.079	
Ethylbenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.098	
Hexachlorobutadiene	BWJ1881-BLK1	ND	ug/L	0.50	0.17	
Isopropylbenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	BWJ1881-BLK1	ND	ug/L	0.50	0.12	
Methylene chloride	BWJ1881-BLK1	ND	ug/L	0.50	0.48	
Methyl t-butyl ether	BWJ1881-BLK1	ND	ug/L	0.50	0.11	
Naphthalene	BWJ1881-BLK1	ND	ug/L	0.50	0.36	
n-Propylbenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.11	
Styrene	BWJ1881-BLK1	ND	ug/L	0.50	0.068	
1,1,1,2-Tetrachloroethane	BWJ1881-BLK1	ND	ug/L	0.50	0.18	
1,1,2,2-Tetrachloroethane	BWJ1881-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	BWJ1881-BLK1	ND	ug/L	0.50	0.13	
Toluene	BWJ1881-BLK1	ND	ug/L	0.50	0.093	
1,2,3-Trichlorobenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.16	
1,2,4-Trichlorobenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.19	
1,1,1-Trichloroethane	BWJ1881-BLK1	ND	ug/L	0.50	0.11	
1,1,2-Trichloroethane	BWJ1881-BLK1	ND	ug/L	0.50	0.16	
Trichloroethene	BWJ1881-BLK1	ND	ug/L	0.50	0.085	
Trichlorofluoromethane	BWJ1881-BLK1	ND	ug/L	0.50	0.13	
1,2,3-Trichloropropane	BWJ1881-BLK1	ND	ug/L	1.0	0.24	
1,1,2-Trichloro-1,2,2-trifluoroethane	BWJ1881-BLK1	ND	ug/L	0.50	0.15	
1,2,4-Trimethylbenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.12	
1,3,5-Trimethylbenzene	BWJ1881-BLK1	ND	ug/L	0.50	0.12	
Vinyl chloride	BWJ1881-BLK1	ND	ug/L	0.50	0.12	
Acetone	BWJ1881-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BWJ1881-BLK1	ND	ug/L	5.0	1.2	
Allyl chloride	BWJ1881-BLK1	ND	ug/L	5.0	0.80	
t-Amyl Methyl ether	BWJ1881-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BWJ1881-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BWJ1881-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BWJ1881-BLK1	ND	ug/L	5.0	1.4	
Diethyl ether	BWJ1881-BLK1	ND	ug/L	2.0	0.21	
Ethyl methacrylate	BWJ1881-BLK1	ND	ug/L	4.0	0.97	

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1881</b>						
Ethyl t-butyl ether	BWJ1881-BLK1	ND	ug/L	0.50	0.18	
Hexachloroethane	BWJ1881-BLK1	ND	ug/L	0.50	0.16	
2-Hexanone	BWJ1881-BLK1	ND	ug/L	10	3.4	
Methacrylonitrile	BWJ1881-BLK1	ND	ug/L	10	1.7	
Methyl ethyl ketone	BWJ1881-BLK1	ND	ug/L	10	2.5	
Methyl iodide	BWJ1881-BLK1	ND	ug/L	2.0	0.47	
Methyl isobutyl ketone	BWJ1881-BLK1	ND	ug/L	10	2.1	
Methyl methacrylate	BWJ1881-BLK1	ND	ug/L	5.0	1.5	
Pentachloroethane	BWJ1881-BLK1	ND	ug/L	2.0	0.43	
Propionitrile	BWJ1881-BLK1	ND	ug/L	20	4.2	
Tetrahydrofuran	BWJ1881-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	BWJ1881-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BWJ1881-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	BWJ1881-BLK1	99.5	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWJ1881-BLK1	99.1	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWJ1881-BLK1	93.6	%	80 - 120 (LCL - UCL)		



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## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ1881</b>										
Benzene	BWJ1881-BS1	LCS	26.510	25.000	ug/L	106		70 - 130		
Bromodichloromethane	BWJ1881-BS1	LCS	25.630	25.000	ug/L	103		70 - 130		
Chlorobenzene	BWJ1881-BS1	LCS	25.410	25.000	ug/L	102		70 - 130		
Chloroethane	BWJ1881-BS1	LCS	26.760	25.000	ug/L	107		70 - 130		
1,4-Dichlorobenzene	BWJ1881-BS1	LCS	26.430	25.000	ug/L	106		70 - 130		
1,1-Dichloroethane	BWJ1881-BS1	LCS	24.060	25.000	ug/L	96.2		70 - 130		
1,1-Dichloroethene	BWJ1881-BS1	LCS	25.470	25.000	ug/L	102		70 - 130		
Toluene	BWJ1881-BS1	LCS	26.310	25.000	ug/L	105		70 - 130		
Trichloroethene	BWJ1881-BS1	LCS	25.500	25.000	ug/L	102		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BWJ1881-BS1	LCS	9.4800	10.000	ug/L	94.8		75 - 125		
Toluene-d8 (Surrogate)	BWJ1881-BS1	LCS	9.8300	10.000	ug/L	98.3		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWJ1881-BS1	LCS	9.9600	10.000	ug/L	99.6		80 - 120		



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Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery		Lab Quals
								RPD	Percent	
<b>QC Batch ID: BWJ1881</b>		Used client sample: N								
Benzene	MS	1323144-02	ND	25.850	25.000	ug/L		103		70 - 130
	MSD	1323144-02	ND	25.890	25.000	ug/L	0.2	104	20	70 - 130
Bromodichloromethane	MS	1323144-02	ND	25.670	25.000	ug/L		103		70 - 130
	MSD	1323144-02	ND	25.270	25.000	ug/L	1.6	101	20	70 - 130
Chlorobenzene	MS	1323144-02	ND	25.390	25.000	ug/L		102		70 - 130
	MSD	1323144-02	ND	25.290	25.000	ug/L	0.4	101	20	70 - 130
Chloroethane	MS	1323144-02	ND	24.770	25.000	ug/L		99.1		70 - 130
	MSD	1323144-02	ND	25.830	25.000	ug/L	4.2	103	20	70 - 130
1,4-Dichlorobenzene	MS	1323144-02	ND	25.430	25.000	ug/L		102		70 - 130
	MSD	1323144-02	ND	25.390	25.000	ug/L	0.2	102	20	70 - 130
1,1-Dichloroethane	MS	1323144-02	ND	23.600	25.000	ug/L		94.4		70 - 130
	MSD	1323144-02	ND	23.510	25.000	ug/L	0.4	94.0	20	70 - 130
1,1-Dichloroethene	MS	1323144-02	ND	24.310	25.000	ug/L		97.2		70 - 130
	MSD	1323144-02	ND	24.730	25.000	ug/L	1.7	98.9	20	70 - 130
Toluene	MS	1323144-02	ND	26.000	25.000	ug/L		104		70 - 130
	MSD	1323144-02	ND	25.970	25.000	ug/L	0.1	104	20	70 - 130
Trichloroethene	MS	1323144-02	ND	25.350	25.000	ug/L		101		70 - 130
	MSD	1323144-02	ND	25.090	25.000	ug/L	1.0	100	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1323144-02	ND	9.4800	10.000	ug/L		94.8		75 - 125
	MSD	1323144-02	ND	9.2100	10.000	ug/L	2.9	92.1		75 - 125
Toluene-d8 (Surrogate)	MS	1323144-02	ND	9.9000	10.000	ug/L		99.0		80 - 120
	MSD	1323144-02	ND	9.9300	10.000	ug/L	0.3	99.3		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1323144-02	ND	9.8800	10.000	ug/L		98.8		80 - 120
	MSD	1323144-02	ND	9.6500	10.000	ug/L	2.4	96.5		80 - 120



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1881</b>						
Chloroacetonitrile	BWJ1881-BLK1	0	ug/L			
1-Chlorobutane	BWJ1881-BLK1	0	ug/L			
1,1-Dichloropropanone	BWJ1881-BLK1	0	ug/L			
Methyl acrylate	BWJ1881-BLK1	0	ug/L			
Nitrobenzene	BWJ1881-BLK1	0	ug/L			
2-Nitropropane	BWJ1881-BLK1	0	ug/L			



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**Reported:** 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWK0466</b>						
Perchlorate	BWK0466-BLK1	ND	ug/L	4.0	0.81	
<b>QC Batch ID: BWK0467</b>						
Perchlorate	BWK0467-BLK1	ND	ug/L	4.0	0.81	



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Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
<b>QC Batch ID: BWK0466</b>											
Perchlorate	BWK0466-BS1	LCS	11.034	10.000	ug/L	110		85	115		
<b>QC Batch ID: BWK0467</b>											
Perchlorate	BWK0467-BS1	LCS	11.272	10.000	ug/L	113		85	115		





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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BWK0466</b>		Used client sample: Y - Description: EB-3-10-23-13, 10/23/2013 06:50								
Perchlorate	DUP	1323134-02	ND	ND		ug/L			15	
	MS	1323134-02	ND	10.823	10.101	ug/L		107		80 - 120
	MSD	1323134-02	ND	10.170	10.101	ug/L	6.2	101	15	80 - 120
<b>QC Batch ID: BWK0467</b>		Used client sample: Y - Description: MW-14-1, 10/23/2013 14:05								
Perchlorate	DUP	1323134-12	4.6362	3.6657		ug/L	23.4		15	J,A02
	MS	1323134-12	4.6362	14.627	10.101	ug/L		98.9		80 - 120
	MSD	1323134-12	4.6362	14.803	10.101	ug/L	1.2	101	15	80 - 120

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**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ1878</b>						
Hexavalent Chromium	BWJ1878-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWJ1879</b>						
Hexavalent Chromium	BWJ1879-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWJ2013</b>						
Total Recoverable Chromium	BWJ2013-BLK1	ND	ug/L	3.0	0.50	
<b>QC Batch ID: BWJ2163</b>						
Total Recoverable Chromium	BWJ2163-BLK1	ND	ug/L	3.0	0.50	



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**Reported:** 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
<b>QC Batch ID: BWJ1878</b>											
Hexavalent Chromium	BWJ1878-BS1	LCS	0.048923	0.050000	mg/L	97.8		85	115		
<b>QC Batch ID: BWJ1879</b>											
Hexavalent Chromium	BWJ1879-BS1	LCS	0.048007	0.050000	mg/L	96.0		85	115		
<b>QC Batch ID: BWJ2013</b>											
Total Recoverable Chromium	BWJ2013-BS1	LCS	41.269	40.000	ug/L	103		85	115		
<b>QC Batch ID: BWJ2163</b>											
Total Recoverable Chromium	BWJ2163-BS1	LCS	41.021	40.000	ug/L	103		85	115		



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Reported: 11/07/2013 16:04  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWJ1878</b>		Used client sample: Y - Description: EB-3-10-23-13, 10/23/2013 06:50								
Hexavalent Chromium	DUP	1323134-02	ND	ND		mg/L			10	
	MS	1323134-02	ND	0.051444	0.052632	mg/L		97.7		85 - 115
	MSD	1323134-02	ND	0.051589	0.052632	mg/L	0.3	98.0	10	85 - 115
<b>QC Batch ID: BWJ1879</b>		Used client sample: Y - Description: DUPE-2-4Q13, 10/23/2013 14:15								
Hexavalent Chromium	DUP	1323134-13	ND	ND		mg/L			10	
	MS	1323134-13	ND	0.051593	0.052632	mg/L		98.0		85 - 115
	MSD	1323134-13	ND	0.051454	0.052632	mg/L	0.3	97.8	10	85 - 115
<b>QC Batch ID: BWJ2013</b>		Used client sample: N								
Total Recoverable Chromium	DUP	1323017-02	4.6070	4.5000		ug/L	2.3		20	
	MS	1323017-02	4.6070	44.501	40.000	ug/L		99.7		70 - 130
	MSD	1323017-02	4.6070	44.542	40.000	ug/L	0.1	99.8	20	70 - 130
<b>QC Batch ID: BWJ2163</b>		Used client sample: Y - Description: MW-23-3, 10/23/2013 09:05								
Total Recoverable Chromium	DUP	1323134-05	2.6890	2.7170		ug/L	1.0		20	J
	MS	1323134-05	2.6890	41.851	40.000	ug/L		97.9		70 - 130
	MSD	1323134-05	2.6890	40.561	40.000	ug/L	3.1	94.7	20	70 - 130

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/07/2013 16:04  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A02 The difference between duplicate readings is less than the PQL.
- A40 Initial calibration linearity criteria not met.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.
- V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.



Date of Report: 11/08/2013

David Conner

Battelle MHTS

505 King Ave.

Columbus, OH 43201

Project: JPL- GW Monitoring Wells

BC Work Order: 1323218

Invoice ID: B159490

Enclosed are the results of analyses for samples received by the laboratory on 10/24/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



# Table of Contents

## Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	10

## Sample Results

<b>1323218-01 - TB-4-10/24/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	15
Volatile Organic Analysis (EPA Method 524.2) TICs.....	18
<b>1323218-02 - EB-4-10/24/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	19
Volatile Organic Analysis (EPA Method 524.2) TICs.....	22
Water Analysis (General Chemistry).....	23
Metals Analysis.....	24
<b>1323218-03 - MW-22-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	25
Volatile Organic Analysis (EPA Method 524.2) TICs.....	28
Water Analysis (General Chemistry).....	29
Metals Analysis.....	30
<b>1323218-04 - MW-22-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	31
Volatile Organic Analysis (EPA Method 524.2) TICs.....	34
Water Analysis (General Chemistry).....	35
Metals Analysis.....	36
<b>1323218-05 - MW-22-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	37
Volatile Organic Analysis (EPA Method 524.2) TICs.....	40
Water Analysis (General Chemistry).....	41
Metals Analysis.....	42
<b>1323218-06 - MW-22-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	43
Volatile Organic Analysis (EPA Method 524.2) TICs.....	46
Water Analysis (General Chemistry).....	47
Metals Analysis.....	48
<b>1323218-07 - MW-22-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	49
Volatile Organic Analysis (EPA Method 524.2) TICs.....	52
Water Analysis (General Chemistry).....	53
Metals Analysis.....	54
<b>1323218-08 - MW-24-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	55
Volatile Organic Analysis (EPA Method 524.2) TICs.....	58
Water Analysis (General Chemistry).....	59
Metals Analysis.....	60
<b>1323218-09 - MW-24-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	61
Volatile Organic Analysis (EPA Method 524.2) TICs.....	64
Water Analysis (General Chemistry).....	65
Metals Analysis.....	66
<b>1323218-10 - MW-24-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	67
Volatile Organic Analysis (EPA Method 524.2) TICs.....	70
Water Analysis (General Chemistry).....	71
Metals Analysis.....	72
<b>1323218-11 - MW-24-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	73



## Table of Contents

Volatile Organic Analysis (EPA Method 524.2) TICs.....	76
Water Analysis (General Chemistry).....	77
Metals Analysis.....	78
<b>1323218-12 - MW-24-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	79
Volatile Organic Analysis (EPA Method 524.2) TICs.....	82
Water Analysis (General Chemistry).....	83
Metals Analysis.....	84
<b>1323218-13 - MW-26-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	85
Volatile Organic Analysis (EPA Method 524.2) TICs.....	88
Water Analysis (General Chemistry).....	89
Metals Analysis.....	90
<b>1323218-14 - MW-26-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	91
Volatile Organic Analysis (EPA Method 524.2) TICs.....	94
Water Analysis (General Chemistry).....	95
Metals Analysis.....	96
<b>1323218-15 - DUPE-3-4Q13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	97
Volatile Organic Analysis (EPA Method 524.2) TICs.....	100
Water Analysis (General Chemistry).....	101
Metals Analysis.....	102
<b>Quality Control Reports</b>	
<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	103
Laboratory Control Sample.....	106
Precision and Accuracy.....	107
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	108
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	109
Laboratory Control Sample.....	110
Precision and Accuracy.....	111
<b>Metals Analysis</b>	
Method Blank Analysis.....	112
Laboratory Control Sample.....	113
Precision and Accuracy.....	114
<b>Notes</b>	
Notes and Definitions.....	115





Chain of Custody Form

Page 1 of 2

**Report To:** Battelle MHTS  
**Client:** Battelle MHTS  
**Attn:** David Conner  
**Street Address:** 505 King Ave.  
**City:** Columbus **State:** OH **Zip:** 43201  
**Phone:** (614) 424-5489 **Fax:** (614) 458-5489  
**Email Address:** connerd@battelle.org  
**Submission #:** 13-23218

**Project Description:** JPL-GW Monitoring  
**Project Code:** 4013  
**Sampler(s):** Blaine Tech

**Analysis Requested:**  
 VOCs EPA 524.2  
 Total Cr 200.8 (ug/L)  
 Perchlorate by 314.0  
 Hexavalent Cr (7196) (mg/L)  
 Chloride, Nitrate, Sulfate  
 Orthophosphate 365.1  
 Nitrite 353.2

**Billing:**  
 Client: SAME  
 Attn:  
 Address:  
 City:  
 State:  
 Zip:  
 Are there any tests with holding times? less than or equal to 48 hours?  
 Yes  No  
 \*Standard Turnaround = 10

Sample #	Sample Description	Date	Time	Matrix*
1	TB-4-10/24/13	10-24-13	0630	AO
2	EB-4-10/24/13		0645	
3	MW-22-5		0735	
4	MW-22-4		0805	
5	MW-22-3		0835	
6	MW-22-2		0900	
7	MW-22-1		0925	
8	MW-24-5		1025	
9	MW-24-4		1100	
10	MW-24-3		1130	
11	MW-24-2		1200	

**Matrix Types:** S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

**Turnaround # of working days:**  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

**Lab TAT Approval:** \_\_\_\_\_ \*Additional Charges May Apply

**Comments:**  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR QC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

**Cost Center:**  
 1. Relinquished By: [Signature] Date: 10-24-13 Time: 1600  
 2. Relinquished By: Nicole Date: 10-24-13 Time: 1610  
 3. Relinquished By: [Signature] Date: 10-24-13 Time: 1640

**Global ID:**  
 1. Received By: [Signature] Date: 10-24-13 Time: 1600  
 2. Received By: [Signature] Date: 10-24-13 Time: 1610  
 3. Received By: [Signature] Date: 10-24-13 Time: 1640

**Notes:**  
 LCC SW...  
 SS...  
 TIME SCHEDULE...  
 LEVEL IV...  
 GIK BY: [Signature]  
 DISTRIBUTION: [Signature]  
 MS/MSD Level IV  
 MS/MSD Level IV

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-1918 www.bclabs.com

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Chain of Custody Form



Page 2 of 2

Report To: Battelle MHTS  
 Client: Battelle MHTS  
 Attn: David Corner  
 Street Address: 505 King Ave.  
 City: Columbus State: OH Zip: 43201  
 Phone: (614) 424-5489 Fax: (614) 458-5489  
 Email Address: connerd@battelle.org  
 Submission #: 13-23218

Project Description: JPL-GW Monitoring  
 Project Code: 4Q13  
 Sampler(s): Blaine Tech

Analysis Requested:  
 VOCs EPA 524.2  
 Total Cr 200.8 (ug/L)  
 Perchlorate by 314.0  
 Hexavalent Cr (7196) (mg/L)  
 Chloride, Nitrate, Sulfate  
 Orthophosphate 365.1  
 Nitrite 353.2

Sample #	Sample Description	Date	Time	Matrix*
-12	MW-24-1	10-24-13	1245	10
-13	MW-26-2	1340		
-14	MW-26-1	1410		
-15	DUP-3-4Q13	1430		

Notes:  
 Yes  No  
 \*Standard Turnaround = 10

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other  
 Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)  
 Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

Cost Center:  
 1. Relinquished By: [Signature] Date: 10-24-13 Time: 1600  
 2. Relinquished By: [Signature] Date: 10-24-13 Time: 1610  
 3. Relinquished By: [Signature] Date: 10-24-13 Time: 1940

Global ID: 10-24-13 1940

Comments:  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR QC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-1918 www.bclabs.com

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Chain of Custody and Cooler Receipt Form for 1323218 Page 3 of 6

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 1 of 4

Submission #: 13-23218

SHIPPING INFORMATION Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/>
---	--	--	---

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: OTPC Thermometer ID: 207 Date/Time 10/24/13  
 Temperature: (A) 2.7 °C / (C) 2.8 °C Analyst Init KIQ 1945

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL		B	B	B						
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS		C	C	C						
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
1oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
1A PHENOLICS										
10ml VOA VIAL TRAVEL BLANK	A2									
10ml VOA VIAL	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
10 ml VOA VIAL- 504										
QT EPA 508/608/800										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
100ml EPA 547										
100ml EPA 531.1										
QT EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
PT AMBER										
1 OZ. JAR										
1 OZ. JAR										
OIL SLEEVE										
1CB VIAL										
PLASTIC BAG										
FERRIC IRON										
INCORE										
MARK KIT										
10ml Canister										
Comments:	_____									
Sample Numbering Completed By:	M Date/Time: 10/24/13 0920									



Chain of Custody and Cooler Receipt Form for 1323218 Page 4 of 6

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 of 4

Submission #: 13-23218

SHIPPING INFORMATION Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> C Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	--	---

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

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

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

COC Received  YES  NO

Emissivity: 0.95 Container: DTPC Thermometer ID: 207 Date/Time 10/24/13  
 Temperature: (A) 2.7 °C / (C) 2.8 °C Analyst Init KIQ 1945

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
GENERAL MINERAL/ GENERAL	B									
PE UNPRESERVED										
INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS	C									
CYANIDE										
NITROGEN FORMS										
TOTAL SULFIDE										
NITRATE / NITRITE										
TOTAL ORGANIC CARBON										
TOX										
CHEMICAL OXYGEN DEMAND										
PHENOLICS										
VOA VIAL TRAVEL BLANK										
VOA VIAL	A.9	A.3	A.3	A.3	A.3					
EPA 413.1, 413.2, 418.1										
ODOR										
BIOLOGICAL										
STERIOLOGICAL										
VOA VIAL- 504										
EPA 508/608/8080										
EPA 515.1/8150										
EPA 525										
EPA 525 TRAVEL BLANK										
EPA 547										
EPA 531.1										
EPA 548										
EPA 549										
EPA 632										
EPA 8015M										
AMBER										
L JAR										
Z JAR										
L SLEEVE										
VIAL										
STIC BAG										
ROUS IRON										
CORE										
RT KI										
uma Canister										
ments:										



Chain of Custody and Cooler Receipt Form for 1323218 Page 5 of 6

LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 3 of 4 Submission #: 13-23218

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments. Study Seals: Ice Chest, Containers, None. Intact: Yes, No.

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

COC Received: YES, NO. Emissivity: 0.95. Container: Ope. Thermometer ID: 207. Date/Time: 10/24/13. Analyst Init: KIQ 1945. Temperature: (A) 4.9 °C, (C) 5.0 °C.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include: GENERAL MINERAL/GENERAL UNPRESERVED, ORGANIC CHEMICAL METALS, ANIDE, FROGEN FORMS, TAL SULFIDE, TRATE/NITRITE, TAL ORGANIC CARBON, EMICAL OXYGEN DEMAND, ENOLICS, QA VIAL TRAVEL BLANK, QA VIAL, LOGICAL, BIOLOGICAL, QA VIAL-504, 508/608/8080, 515.1/8150, 525, 525 TRAVEL BLANK, QA 547, QA 531.1, 548, 549, 532, 015M, ER, R, EVE, BAG, TROU.



Chain of Custody and Cooler Receipt Form for 1323218 Page 6 of 6

BC LABORATORIES, INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 4 of 4

Submission #: 13-23218

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, C Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Intact? Yes, No.

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

COC Received: YES, NO. Emissivity: 0.95, Container: Ope, Thermometer ID: 207, Date/Time: 10/24/13, Analyst Init: K10 1945, Temperature: (A) 4.9 °C, (C) 15.0 °C.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include: GENERAL MINERAL/GENERAL, PE UNPRESERVED, INORGANIC CHEMICAL METALS, INORGANIC CHEMICAL METALS, CYANIDE, NITROGEN FORMS, TOTAL SULFIDE, NITRATE / NITRITE, TOTAL ORGANIC CARBON, TOX, CHEMICAL OXYGEN DEMAND, PHENOLICS, VOA VIAL TRAVEL BLANK, VOA VIAL, EPA 413.1, 413.2, 418.1, DOR, BIOLOGICAL, PERIOLOGICAL, VOA VIAL-504, PA 508/608/8080, PA 515.1/8150, PA 525, PA 525 TRAVEL BLANK, EPA 547, EPA 531.1, PA 548, PA 549, PA 632, PA 8015M, TBER, JAR, JAR, SLEEVE, JAL, TIC BAG, TUS IRON, RE, FKH.



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323218-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-4-10/24/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 06:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-4-10/24/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323218-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-4-10/24/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 06:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-4-10/24/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323218-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-22-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 07:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-22-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323218-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-22-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 08:05 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-22-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323218-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-22-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 08:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-22-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323218-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-22-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 09:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-22-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323218-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-22-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 09:25 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-22-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323218-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-24-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 10:25 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-24-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323218-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-24-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 11:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-24-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323218-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-24-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 11:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-24-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323218-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-24-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 12:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-24-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323218-12</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-24-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 12:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-24-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323218-13</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-26-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 13:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-26-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323218-14</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-26-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 14:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-26-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323218-15</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUPE-3-4Q13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/24/2013 19:40 <b>Sampling Date:</b> 10/24/2013 14:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUPE-3-4Q13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 1323218-01      **Client Sample Name:** JPL-GW, TB-4-10/24/13, 10/24/2013 6:30:00AM, Blaine Tech

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-01	<b>Client Sample Name:</b> JPL-GW, TB-4-10/24/13, 10/24/2013 6:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-01	<b>Client Sample Name:</b> JPL-GW, TB-4-10/24/13, 10/24/2013 6:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	88.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 11:02	MGC	MS-V5	1	BWJ2115



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-01	<b>Client Sample Name:</b> JPL-GW, TB-4-10/24/13, 10/24/2013 6:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 11:02	MGC	MS-V5	1	BWJ2115



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-02	<b>Client Sample Name:</b> JPL-GW, EB-4-10/24/13, 10/24/2013 6:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-02	<b>Client Sample Name:</b> JPL-GW, EB-4-10/24/13, 10/24/2013 6:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-02	<b>Client Sample Name:</b> JPL-GW, EB-4-10/24/13, 10/24/2013 6:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 11:25	MGC	MS-V5	1	BWJ2115



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-02	<b>Client Sample Name:</b> JPL-GW, EB-4-10/24/13, 10/24/2013 6:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 11:25	MGC	MS-V5	1	BWJ2115



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-02	<b>Client Sample Name:</b> JPL-GW, EB-4-10/24/13, 10/24/2013 6:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/06/13 22:28	LD1	IC6	1	BWK0535

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-02	<b>Client Sample Name:</b> JPL-GW, EB-4-10/24/13, 10/24/2013 6:45:00AM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.7</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.97</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/24/13	10/24/13 22:20	LS1	KONE-1	1	BWJ2021
2	EPA-200.8	10/30/13	10/30/13 17:27	SRM	PE-EL2	1	BWJ2363

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-03	<b>Client Sample Name:</b> JPL-GW, MW-22-5, 10/24/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Columbus, OH 43201

Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-03	<b>Client Sample Name:</b> JPL-GW, MW-22-5, 10/24/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.74</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.38</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-03	<b>Client Sample Name:</b> JPL-GW, MW-22-5, 10/24/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	95.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	85.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 11:48	MGC	MS-V5	1	BWJ2115





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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-03	<b>Client Sample Name:</b> JPL-GW, MW-22-5, 10/24/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 11:48	MGC	MS-V5	1	BWJ2115

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-03	<b>Client Sample Name:</b> JPL-GW, MW-22-5, 10/24/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/06/13 23:10	LD1	IC6	1	BWK0535

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-03	<b>Client Sample Name:</b> JPL-GW, MW-22-5, 10/24/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	0.97		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/24/13	10/24/13 22:20	LS1	KONE-1	1	BWJ2021
2	EPA-200.8	10/30/13	10/30/13 17:30	SRM	PE-EL2	1	BWJ2363



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**Reported:** 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-04	<b>Client Sample Name:</b> JPL-GW, MW-22-4, 10/24/2013 8:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-04	<b>Client Sample Name:</b> JPL-GW, MW-22-4, 10/24/2013 8:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-04	<b>Client Sample Name:</b> JPL-GW, MW-22-4, 10/24/2013 8:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	93.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	80.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 05:13	MGC	MS-V5	1	BWJ2115

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-04	<b>Client Sample Name:</b> JPL-GW, MW-22-4, 10/24/2013 8:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 05:13	MGC	MS-V5	1	BWJ2115

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-04	<b>Client Sample Name:</b> JPL-GW, MW-22-4, 10/24/2013 8:05:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/06/13 23:24	LD1	IC6	1	BWK0535





Battelle MHTS  
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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-04	<b>Client Sample Name:</b> JPL-GW, MW-22-4, 10/24/2013 8:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0017	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.0	ug/L	3.0	0.50	EPA-200.8	0.97	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/24/13	10/24/13 22:20	LS1	KONE-1	1	BWJ2021
2	EPA-200.8	10/30/13	10/30/13 17:33	SRM	PE-EL2	1	BWJ2363



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-05	<b>Client Sample Name:</b> JPL-GW, MW-22-3, 10/24/2013 8:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-05	<b>Client Sample Name:</b> JPL-GW, MW-22-3, 10/24/2013 8:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.10</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-05	<b>Client Sample Name:</b> JPL-GW, MW-22-3, 10/24/2013 8:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	72.3	%	80 - 120 (LCL - UCL)		EPA-524.2		S09	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 12:33	MGC	MS-V5	1	BWJ2115



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-05	<b>Client Sample Name:</b> JPL-GW, MW-22-3, 10/24/2013 8:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 12:33	MGC	MS-V5	1	BWJ2115



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-05	<b>Client Sample Name:</b> JPL-GW, MW-22-3, 10/24/2013 8:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.6	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/06/13 23:38	LD1	IC6	1	BWK0535



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-05	<b>Client Sample Name:</b> JPL-GW, MW-22-3, 10/24/2013 8:35:00AM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0020	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	3.2	ug/L	3.0	0.50	EPA-200.8	0.97		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/24/13	10/24/13 22:20	LS1	KONE-1	1	BWJ2021
2	EPA-200.8	10/30/13	10/30/13 17:36	SRM	PE-EL2	1	BWJ2363

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Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-06	<b>Client Sample Name:</b> JPL-GW, MW-22-2, 10/24/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.15</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-06	<b>Client Sample Name:</b> JPL-GW, MW-22-2, 10/24/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.17</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-06	<b>Client Sample Name:</b> JPL-GW, MW-22-2, 10/24/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	84.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	86.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 12:56	MGC	MS-V5	1	BWJ2115



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-06	<b>Client Sample Name:</b> JPL-GW, MW-22-2, 10/24/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 12:56	MGC	MS-V5	1	BWJ2115



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-06	<b>Client Sample Name:</b> JPL-GW, MW-22-2, 10/24/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.5	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/06/13 23:51	LD1	IC6	1	BWK0535

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-06	<b>Client Sample Name:</b> JPL-GW, MW-22-2, 10/24/2013 9:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0012	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.4	ug/L	3.0	0.50	EPA-200.8	0.97	J	2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/24/13	10/24/13 22:26	LS1	KONE-1	1	BWJ2021
2	EPA-200.8	10/30/13	10/30/13 17:39	SRM	PE-EL2	1	BWJ2363

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Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-07	<b>Client Sample Name:</b> JPL-GW, MW-22-1, 10/24/2013 9:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.39</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-07	<b>Client Sample Name:</b> JPL-GW, MW-22-1, 10/24/2013 9:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.22</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-07	<b>Client Sample Name:</b> JPL-GW, MW-22-1, 10/24/2013 9:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	117	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	86.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	82.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 13:41	MGC	MS-V5	1	BWJ2115





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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-07	<b>Client Sample Name:</b> JPL-GW, MW-22-1, 10/24/2013 9:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 13:41	MGC	MS-V5	1	BWJ2115



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-07	<b>Client Sample Name:</b> JPL-GW, MW-22-1, 10/24/2013 9:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.7	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/07/13 11:28	LD1	IC6	1	BWK0535



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-07	<b>Client Sample Name:</b> JPL-GW, MW-22-1, 10/24/2013 9:25:00AM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.0</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>0.97</b>	<b>J</b>	<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/24/13	10/24/13 23:09	LS1	KONE-1	1	BWJ2021
2	EPA-200.8	10/30/13	10/30/13 17:42	SRM	PE-EL2	1	BWJ2363

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**Reported:** 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-08	<b>Client Sample Name:</b> JPL-GW, MW-24-5, 10/24/2013 10:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-08	<b>Client Sample Name:</b> JPL-GW, MW-24-5, 10/24/2013 10:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-08	<b>Client Sample Name:</b> JPL-GW, MW-24-5, 10/24/2013 10:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 14:04	MGC	MS-V5	1	BWJ2115



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-08	<b>Client Sample Name:</b> JPL-GW, MW-24-5, 10/24/2013 10:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 14:04	MGC	MS-V5	1	BWJ2115



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-08	<b>Client Sample Name:</b> JPL-GW, MW-24-5, 10/24/2013 10:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/07/13 00:19	LD1	IC6	1	BWK0535





Battelle MHTS  
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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-08	<b>Client Sample Name:</b> JPL-GW, MW-24-5, 10/24/2013 10:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0014	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	3.1	ug/L	3.0	0.50	EPA-200.8	0.97		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/24/13	10/24/13 22:26	LS1	KONE-1	1	BWJ2021
2	EPA-200.8	10/30/13	10/30/13 17:46	SRM	PE-EL2	1	BWJ2363

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-09	<b>Client Sample Name:</b> JPL-GW, MW-24-4, 10/24/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-09	<b>Client Sample Name:</b> JPL-GW, MW-24-4, 10/24/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
<b>Ethylbenzene</b>	<b>0.15</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.098</b>	<b>EPA-524.2</b>	ND	J	1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.21</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.068</b>	<b>EPA-524.2</b>	ND	J	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-09	<b>Client Sample Name:</b> JPL-GW, MW-24-4, 10/24/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	103	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 14:27	MGC	MS-V5	1	BWJ2115



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-09	<b>Client Sample Name:</b> JPL-GW, MW-24-4, 10/24/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 14:27	MGC	MS-V5	1	BWJ2115

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-09	<b>Client Sample Name:</b> JPL-GW, MW-24-4, 10/24/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/07/13 00:33	LD1	IC6	1	BWK0535



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-09	<b>Client Sample Name:</b> JPL-GW, MW-24-4, 10/24/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	0.97		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/24/13	10/24/13 22:26	LS1	KONE-1	1	BWJ2021
2	EPA-200.8	10/30/13	10/30/13 17:49	SRM	PE-EL2	1	BWJ2363

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Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-10	<b>Client Sample Name:</b> JPL-GW, MW-24-3, 10/24/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.11</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-10	<b>Client Sample Name:</b> JPL-GW, MW-24-3, 10/24/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.39</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.38</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-10	<b>Client Sample Name:</b> JPL-GW, MW-24-3, 10/24/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	94.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 14:50	MGC	MS-V5	1	BWJ2115

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-10	<b>Client Sample Name:</b> JPL-GW, MW-24-3, 10/24/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 14:50	MGC	MS-V5	1	BWJ2115



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-10	<b>Client Sample Name:</b> JPL-GW, MW-24-3, 10/24/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/07/13 01:14	LD1	IC6	1	BWK0536



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-10	<b>Client Sample Name:</b> JPL-GW, MW-24-3, 10/24/2013 11:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	0.97		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/24/13	10/24/13 22:26	LS1	KONE-1	1	BWJ2021
2	EPA-200.8	10/30/13	10/30/13 17:52	SRM	PE-EL2	1	BWJ2363



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Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-11	<b>Client Sample Name:</b> JPL-GW, MW-24-2, 10/24/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>0.81</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>0.36</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.18</b>	<b>EPA-524.2</b>	ND	J	1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.27</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	J	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-11	<b>Client Sample Name:</b> JPL-GW, MW-24-2, 10/24/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.32</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.16</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-11	<b>Client Sample Name:</b> JPL-GW, MW-24-2, 10/24/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	89.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 08:23	MGC	MS-V5	1	BWJ2115

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-11	<b>Client Sample Name:</b> JPL-GW, MW-24-2, 10/24/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 08:23	MGC	MS-V5	1	BWJ2115



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-11	<b>Client Sample Name:</b> JPL-GW, MW-24-2, 10/24/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	9.7	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/07/13 10:22	LD1	IC6	1	BWK0536



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-11	<b>Client Sample Name:</b> JPL-GW, MW-24-2, 10/24/2013 12:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0017	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.3	ug/L	3.0	0.50	EPA-200.8	0.97	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/24/13	10/24/13 22:20	LS1	KONE-1	1	BWJ2021
2	EPA-200.8	10/30/13	10/30/13 16:53	SRM	PE-EL2	1	BWJ2363

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Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-12	<b>Client Sample Name:</b> JPL-GW, MW-24-1, 10/24/2013 12:45:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>0.19</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	J	1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>5.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-12	<b>Client Sample Name:</b> JPL-GW, MW-24-1, 10/24/2013 12:45:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-12	<b>Client Sample Name:</b> JPL-GW, MW-24-1, 10/24/2013 12:45:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	106	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	79.5	%	80 - 120 (LCL - UCL)		EPA-524.2		S09	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 15:13	MGC	MS-V5	1	BWJ2115

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-12	<b>Client Sample Name:</b> JPL-GW, MW-24-1, 10/24/2013 12:45:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 15:13	MGC	MS-V5	1	BWJ2115



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-12	<b>Client Sample Name:</b> JPL-GW, MW-24-1, 10/24/2013 12:45:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	76	mg/L	0.50	0.067	EPA-300.0	0.13		1
Nitrate as N	1.3	mg/L	0.10	0.025	EPA-300.0	ND		1
Sulfate	42	mg/L	1.0	0.18	EPA-300.0	ND		1
Nitrite as N	0.016	mg/L	0.050	0.012	EPA-353.2	ND	J	2
Perchlorate	2.3	ug/L	4.0	0.81	EPA-314.0	ND	J	3
ortho-Phosphate as P	0.0081	mg/L	0.020	0.0040	EPA-365.1	ND	J,Z1	4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	10/25/13	10/26/13 01:20	LD1	IC1	1	BWJ2109
2	EPA-353.2	10/25/13	10/25/13 08:32	TDC	KONE-1	1	BWJ2020
3	EPA-314.0	11/06/13	11/07/13 02:51	LD1	IC6	1	BWK0536
4	EPA-365.1	10/25/13	10/25/13 09:15	TDC	KONE-1	1	BWJ2025

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-12	<b>Client Sample Name:</b> JPL-GW, MW-24-1, 10/24/2013 12:45:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0064	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	9.9	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 08:00	TDC	KONE-1	1	BWJ2022
2	EPA-200.8	10/31/13	10/31/13 18:46	SRM	PE-EL2	1	BWJ2461

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Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-13	<b>Client Sample Name:</b> JPL-GW, MW-26-2, 10/24/2013 1:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>0.18</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.32</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-13	<b>Client Sample Name:</b> JPL-GW, MW-26-2, 10/24/2013 1:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>2.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.33</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-13	<b>Client Sample Name:</b> JPL-GW, MW-26-2, 10/24/2013 1:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 15:35	MGC	MS-V5	1	BWJ2115



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505 King Ave.  
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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-13	<b>Client Sample Name:</b> JPL-GW, MW-26-2, 10/24/2013 1:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 15:35	MGC	MS-V5	1	BWJ2115



Battelle MHTS  
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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-13	<b>Client Sample Name:</b> JPL-GW, MW-26-2, 10/24/2013 1:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.3	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/07/13 03:05	LD1	IC6	1	BWK0536



Battelle MHTS  
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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-13	<b>Client Sample Name:</b> JPL-GW, MW-26-2, 10/24/2013 1:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 08:00	TDC	KONE-1	1	BWJ2022
2	EPA-200.8	10/31/13	10/31/13 19:17	SRM	PE-EL2	1	BWJ2461



Battelle MHTS  
505 King Ave.  
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Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-14	<b>Client Sample Name:</b> JPL-GW, MW-26-1, 10/24/2013 2:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.27</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-14	<b>Client Sample Name:</b> JPL-GW, MW-26-1, 10/24/2013 2:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.40</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.35</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-14	<b>Client Sample Name:</b> JPL-GW, MW-26-1, 10/24/2013 2:10:00PM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	109	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 15:58	MGC	MS-V5	1	BWJ2115



Battelle MHTS  
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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-14	<b>Client Sample Name:</b> JPL-GW, MW-26-1, 10/24/2013 2:10:00PM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 15:58	MGC	MS-V5	1	BWJ2115



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-14	<b>Client Sample Name:</b> JPL-GW, MW-26-1, 10/24/2013 2:10:00PM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	4.5	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/07/13 03:19	LD1	IC6	1	BWK0536

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-14	<b>Client Sample Name:</b> JPL-GW, MW-26-1, 10/24/2013 2:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 08:00	TDC	KONE-1	1	BWJ2022
2	EPA-200.8	10/31/13	10/31/13 19:20	SRM	PE-EL2	1	BWJ2461



Battelle MHTS  
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Columbus, OH 43201

Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-15	<b>Client Sample Name:</b> JPL-GW, DUPE-3-4Q13, 10/24/2013 2:20:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.30</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 1323218-15		Client Sample Name: JPL-GW, DUPE-3-4Q13, 10/24/2013 2:20:00PM, Blaine Tech						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.46</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.42</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND	V11	1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323218-15	<b>Client Sample Name:</b> JPL-GW, DUPE-3-4Q13, 10/24/2013 2:20:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	86.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 16:21	MGC	MS-V5	1	BWJ2115

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323218-15	<b>Client Sample Name:</b> JPL-GW, DUPE-3-4Q13, 10/24/2013 2:20:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 16:21	MGC	MS-V5	1	BWJ2115



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323218-15	<b>Client Sample Name:</b> JPL-GW, DUPE-3-4Q13, 10/24/2013 2:20:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	4.2	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/06/13	11/07/13 03:33	LD1	IC6	1	BWK0536

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323218-15	<b>Client Sample Name:</b> JPL-GW, DUPE-3-4Q13, 10/24/2013 2:20:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>7.2</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 08:00	TDC	KONE-1	1	BWJ2022
2	EPA-200.8	10/31/13	10/31/13 19:23	SRM	PE-EL2	1	BWJ2461

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Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2115</b>						
Benzene	BWJ2115-BLK1	ND	ug/L	0.50	0.083	
Bromobenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.13	
Bromochloromethane	BWJ2115-BLK1	ND	ug/L	0.50	0.24	
Bromodichloromethane	BWJ2115-BLK1	ND	ug/L	0.50	0.14	
Bromoform	BWJ2115-BLK1	ND	ug/L	0.50	0.27	
Bromomethane	BWJ2115-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.11	
sec-Butylbenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.15	
tert-Butylbenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.13	
Carbon tetrachloride	BWJ2115-BLK1	ND	ug/L	0.50	0.18	
Chlorobenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.093	
Chloroethane	BWJ2115-BLK1	ND	ug/L	0.50	0.14	
Chloroform	BWJ2115-BLK1	ND	ug/L	0.50	0.12	
Chloromethane	BWJ2115-BLK1	ND	ug/L	0.50	0.14	
2-Chlorotoluene	BWJ2115-BLK1	ND	ug/L	0.50	0.20	
4-Chlorotoluene	BWJ2115-BLK1	ND	ug/L	0.50	0.15	
Dibromochloromethane	BWJ2115-BLK1	ND	ug/L	0.50	0.13	
1,2-Dibromo-3-chloropropane	BWJ2115-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane	BWJ2115-BLK1	ND	ug/L	0.50	0.16	
Dibromomethane	BWJ2115-BLK1	ND	ug/L	0.50	0.24	
1,2-Dichlorobenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.072	
1,3-Dichlorobenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.15	
1,4-Dichlorobenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.062	
Dichlorodifluoromethane	BWJ2115-BLK1	ND	ug/L	0.50	0.099	
1,1-Dichloroethane	BWJ2115-BLK1	ND	ug/L	0.50	0.11	
1,2-Dichloroethane	BWJ2115-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	BWJ2115-BLK1	ND	ug/L	0.50	0.18	
cis-1,2-Dichloroethene	BWJ2115-BLK1	ND	ug/L	0.50	0.085	
trans-1,2-Dichloroethene	BWJ2115-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloropropane	BWJ2115-BLK1	ND	ug/L	0.50	0.13	
1,3-Dichloropropane	BWJ2115-BLK1	ND	ug/L	0.50	0.086	
2,2-Dichloropropane	BWJ2115-BLK1	ND	ug/L	0.50	0.13	
1,1-Dichloropropene	BWJ2115-BLK1	ND	ug/L	0.50	0.085	
cis-1,3-Dichloropropene	BWJ2115-BLK1	ND	ug/L	0.50	0.14	

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Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2115</b>						
trans-1,3-Dichloropropene	BWJ2115-BLK1	ND	ug/L	0.50	0.079	
Ethylbenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.098	
Hexachlorobutadiene	BWJ2115-BLK1	ND	ug/L	0.50	0.17	
Isopropylbenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	BWJ2115-BLK1	ND	ug/L	0.50	0.12	
Methylene chloride	BWJ2115-BLK1	ND	ug/L	0.50	0.48	
Methyl t-butyl ether	BWJ2115-BLK1	ND	ug/L	0.50	0.11	
Naphthalene	BWJ2115-BLK1	ND	ug/L	0.50	0.36	
n-Propylbenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.11	
Styrene	BWJ2115-BLK1	ND	ug/L	0.50	0.068	
1,1,1,2-Tetrachloroethane	BWJ2115-BLK1	ND	ug/L	0.50	0.18	
1,1,2,2-Tetrachloroethane	BWJ2115-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	BWJ2115-BLK1	ND	ug/L	0.50	0.13	
Toluene	BWJ2115-BLK1	ND	ug/L	0.50	0.093	
1,2,3-Trichlorobenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.16	
1,2,4-Trichlorobenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.19	
1,1,1-Trichloroethane	BWJ2115-BLK1	ND	ug/L	0.50	0.11	
1,1,2-Trichloroethane	BWJ2115-BLK1	ND	ug/L	0.50	0.16	
Trichloroethene	BWJ2115-BLK1	ND	ug/L	0.50	0.085	
Trichlorofluoromethane	BWJ2115-BLK1	ND	ug/L	0.50	0.13	
1,2,3-Trichloropropane	BWJ2115-BLK1	ND	ug/L	1.0	0.24	
1,1,2-Trichloro-1,2,2-trifluoroethane	BWJ2115-BLK1	ND	ug/L	0.50	0.15	
1,2,4-Trimethylbenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.12	
1,3,5-Trimethylbenzene	BWJ2115-BLK1	ND	ug/L	0.50	0.12	
Vinyl chloride	BWJ2115-BLK1	ND	ug/L	0.50	0.12	
Acetone	BWJ2115-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BWJ2115-BLK1	ND	ug/L	5.0	1.2	
Allyl chloride	BWJ2115-BLK1	ND	ug/L	5.0	0.80	
t-Amyl Methyl ether	BWJ2115-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BWJ2115-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BWJ2115-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BWJ2115-BLK1	ND	ug/L	5.0	1.4	
Diethyl ether	BWJ2115-BLK1	ND	ug/L	2.0	0.21	
Ethyl methacrylate	BWJ2115-BLK1	ND	ug/L	4.0	0.97	

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2115</b>						
Ethyl t-butyl ether	BWJ2115-BLK1	ND	ug/L	0.50	0.18	
Hexachloroethane	BWJ2115-BLK1	ND	ug/L	0.50	0.16	
2-Hexanone	BWJ2115-BLK1	ND	ug/L	10	3.4	
Methacrylonitrile	BWJ2115-BLK1	ND	ug/L	10	1.7	
Methyl ethyl ketone	BWJ2115-BLK1	ND	ug/L	10	2.5	
Methyl iodide	BWJ2115-BLK1	ND	ug/L	2.0	0.47	
Methyl isobutyl ketone	BWJ2115-BLK1	ND	ug/L	10	2.1	
Methyl methacrylate	BWJ2115-BLK1	ND	ug/L	5.0	1.5	
Pentachloroethane	BWJ2115-BLK1	ND	ug/L	2.0	0.43	
Propionitrile	BWJ2115-BLK1	ND	ug/L	20	4.2	
Tetrahydrofuran	BWJ2115-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	BWJ2115-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BWJ2115-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	BWJ2115-BLK1	106	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWJ2115-BLK1	100	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWJ2115-BLK1	94.4	%	80 - 120 (LCL - UCL)		



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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
<b>QC Batch ID: BWJ2115</b>											
Benzene	BWJ2115-BS1	LCS	24.080	25.000	ug/L	96.3		70 - 130			
Bromodichloromethane	BWJ2115-BS1	LCS	25.750	25.000	ug/L	103		70 - 130			
Chlorobenzene	BWJ2115-BS1	LCS	24.180	25.000	ug/L	96.7		70 - 130			
Chloroethane	BWJ2115-BS1	LCS	24.450	25.000	ug/L	97.8		70 - 130			
1,4-Dichlorobenzene	BWJ2115-BS1	LCS	23.430	25.000	ug/L	93.7		70 - 130			
1,1-Dichloroethane	BWJ2115-BS1	LCS	23.210	25.000	ug/L	92.8		70 - 130			
1,1-Dichloroethene	BWJ2115-BS1	LCS	23.760	25.000	ug/L	95.0		70 - 130			
Toluene	BWJ2115-BS1	LCS	25.550	25.000	ug/L	102		70 - 130			
Trichloroethene	BWJ2115-BS1	LCS	24.880	25.000	ug/L	99.5		70 - 130			
1,2-Dichloroethane-d4 (Surrogate)	BWJ2115-BS1	LCS	9.3000	10.000	ug/L	93.0		75 - 125			
Toluene-d8 (Surrogate)	BWJ2115-BS1	LCS	10.190	10.000	ug/L	102		80 - 120			
4-Bromofluorobenzene (Surrogate)	BWJ2115-BS1	LCS	9.5900	10.000	ug/L	95.9		80 - 120			



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Reported: 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2115</b>		Used client sample: Y - Description: MW-24-2, 10/24/2013 12:00								
Benzene	MS	1323218-11	ND	25.480	25.000	ug/L		102		70 - 130
	MSD	1323218-11	ND	25.800	25.000	ug/L	1.2	103	20	70 - 130
Bromodichloromethane	MS	1323218-11	0.81000	26.170	25.000	ug/L		101		70 - 130
	MSD	1323218-11	0.81000	25.960	25.000	ug/L	0.8	101	20	70 - 130
Chlorobenzene	MS	1323218-11	ND	25.900	25.000	ug/L		104		70 - 130
	MSD	1323218-11	ND	24.930	25.000	ug/L	3.8	99.7	20	70 - 130
Chloroethane	MS	1323218-11	ND	26.290	25.000	ug/L		105		70 - 130
	MSD	1323218-11	ND	26.780	25.000	ug/L	1.8	107	20	70 - 130
1,4-Dichlorobenzene	MS	1323218-11	ND	24.360	25.000	ug/L		97.4		70 - 130
	MSD	1323218-11	ND	24.330	25.000	ug/L	0.1	97.3	20	70 - 130
1,1-Dichloroethane	MS	1323218-11	0.27000	25.080	25.000	ug/L		99.2		70 - 130
	MSD	1323218-11	0.27000	24.750	25.000	ug/L	1.3	97.9	20	70 - 130
1,1-Dichloroethene	MS	1323218-11	ND	25.080	25.000	ug/L		100		70 - 130
	MSD	1323218-11	ND	24.840	25.000	ug/L	1.0	99.4	20	70 - 130
Toluene	MS	1323218-11	ND	25.480	25.000	ug/L		102		70 - 130
	MSD	1323218-11	ND	25.680	25.000	ug/L	0.8	103	20	70 - 130
Trichloroethene	MS	1323218-11	0.16000	25.000	25.000	ug/L		99.4		70 - 130
	MSD	1323218-11	0.16000	25.280	25.000	ug/L	1.1	100	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1323218-11	ND	9.3500	10.000	ug/L		93.5		75 - 125
	MSD	1323218-11	ND	9.3100	10.000	ug/L	0.4	93.1		75 - 125
Toluene-d8 (Surrogate)	MS	1323218-11	ND	9.7200	10.000	ug/L		97.2		80 - 120
	MSD	1323218-11	ND	9.9100	10.000	ug/L	1.9	99.1		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1323218-11	ND	9.5300	10.000	ug/L		95.3		80 - 120
	MSD	1323218-11	ND	9.7100	10.000	ug/L	1.9	97.1		80 - 120

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**Reported:** 11/08/2013 8:42  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2115</b>						
Chloroacetonitrile	BWJ2115-BLK1	0	ug/L			
1-Chlorobutane	BWJ2115-BLK1	0	ug/L			
1,1-Dichloropropanone	BWJ2115-BLK1	0	ug/L			
Methyl acrylate	BWJ2115-BLK1	0	ug/L			
Nitrobenzene	BWJ2115-BLK1	0	ug/L			
2-Nitropropane	BWJ2115-BLK1	0	ug/L			



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**Project Manager:** David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2020</b>						
Nitrite as N	BWJ2020-BLK1	0.0058710	mg/L	0.050	0.0013	J
<b>QC Batch ID: BWJ2025</b>						
ortho-Phosphate as P	BWJ2025-BLK1	ND	mg/L	0.020	0.0040	
<b>QC Batch ID: BWJ2109</b>						
Chloride	BWJ2109-BLK1	0.12700	mg/L	0.50	0.067	J
Nitrate as N	BWJ2109-BLK1	ND	mg/L	0.10	0.025	
Sulfate	BWJ2109-BLK1	ND	mg/L	1.0	0.18	
<b>QC Batch ID: BWK0535</b>						
Perchlorate	BWK0535-BLK1	ND	ug/L	4.0	0.81	
<b>QC Batch ID: BWK0536</b>						
Perchlorate	BWK0536-BLK1	ND	ug/L	4.0	0.81	



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**Project Number:** 4Q13  
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### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2020</b>										
Nitrite as N	BWJ2020-BS1	LCS	0.51608	0.50000	mg/L	103		90 - 110		
<b>QC Batch ID: BWJ2025</b>										
ortho-Phosphate as P	BWJ2025-BS1	LCS	0.22232	0.20000	mg/L	111		90 - 110		L01
<b>QC Batch ID: BWJ2109</b>										
Chloride	BWJ2109-BS1	LCS	50.755	50.000	mg/L	102		90 - 110		
Nitrate as N	BWJ2109-BS1	LCS	5.0520	5.0000	mg/L	101		90 - 110		
Sulfate	BWJ2109-BS1	LCS	101.26	100.00	mg/L	101		90 - 110		
<b>QC Batch ID: BWK0535</b>										
Perchlorate	BWK0535-BS1	LCS	11.284	10.000	ug/L	113		85 - 115		
<b>QC Batch ID: BWK0536</b>										
Perchlorate	BWK0536-BS1	LCS	10.652	10.000	ug/L	107		85 - 115		



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### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWJ2020</b>		Used client sample: Y - Description: MW-24-1, 10/24/2013 12:45								
Nitrite as N	DUP	1323218-12	0.016261	0.018532		mg/L	13.1		10	J,A02
	MS	1323218-12	0.016261	0.49284	0.52632	mg/L		90.6	90 - 110	
	MSD	1323218-12	0.016261	0.49315	0.52632	mg/L	0.1	90.6	10 90 - 110	
<b>QC Batch ID: BWJ2025</b>		Used client sample: Y - Description: MW-24-1, 10/24/2013 12:45								
ortho-Phosphate as P	DUP	1323218-12	0.0081260	0.0087570		mg/L	7.5		10	J
	MS	1323218-12	0.0081260	0.21798	0.21053	mg/L		99.7	90 - 110	
	MSD	1323218-12	0.0081260	0.21948	0.21053	mg/L	0.7	100	10 90 - 110	
<b>QC Batch ID: BWJ2109</b>		Used client sample: N								
Chloride	DUP	1323177-01	871.21	881.56		mg/L	1.2		10	
	MS	1323177-01	871.21	1393.7	505.05	mg/L		103	80 - 120	
	MSD	1323177-01	871.21	1396.3	505.05	mg/L	0.2	104	10 80 - 120	
Nitrate as N	DUP	1323177-01	10.130	10.120		mg/L	0.1		10	
	MS	1323177-01	10.130	60.242	50.505	mg/L		99.2	80 - 120	
	MSD	1323177-01	10.130	60.323	50.505	mg/L	0.1	99.4	10 80 - 120	
Sulfate	DUP	1323177-01	553.15	558.56		mg/L	1.0		10	
	MS	1323177-01	553.15	1618.4	1010.1	mg/L		105	80 - 120	
	MSD	1323177-01	553.15	1621.6	1010.1	mg/L	0.2	106	10 80 - 120	
<b>QC Batch ID: BWK0535</b>		Used client sample: N								
Perchlorate	DUP	1323214-01	17.557	17.374		ug/L	1.0		15	
	MS	1323214-01	17.557	28.640	10.101	ug/L		110	80 - 120	
	MSD	1323214-01	17.557	27.682	10.101	ug/L	3.4	100	15 80 - 120	
<b>QC Batch ID: BWK0536</b>		Used client sample: Y - Description: MW-24-3, 10/24/2013 11:30								
Perchlorate	DUP	1323218-10	ND	ND		ug/L			15	
	MS	1323218-10	ND	10.177	10.101	ug/L		101	80 - 120	
	MSD	1323218-10	ND	10.642	10.101	ug/L	4.5	105	15 80 - 120	

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**Reported:** 11/08/2013 8:42  
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**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2021</b>						
Hexavalent Chromium	BWJ2021-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWJ2022</b>						
Hexavalent Chromium	BWJ2022-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWJ2363</b>						
Total Recoverable Chromium	BWJ2363-BLK1	0.96600	ug/L	3.0	0.50	J
<b>QC Batch ID: BWJ2461</b>						
Total Recoverable Chromium	BWJ2461-BLK1	ND	ug/L	3.0	0.50	



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### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2021</b>										
Hexavalent Chromium	BWJ2021-BS1	LCS	0.048930	0.050000	mg/L	97.9		85	115	
<b>QC Batch ID: BWJ2022</b>										
Hexavalent Chromium	BWJ2022-BS1	LCS	0.048858	0.050000	mg/L	97.7		85	115	
<b>QC Batch ID: BWJ2363</b>										
Total Recoverable Chromium	BWJ2363-BS1	LCS	43.843	40.000	ug/L	110		85	115	
<b>QC Batch ID: BWJ2461</b>										
Total Recoverable Chromium	BWJ2461-BS1	LCS	39.040	40.000	ug/L	97.6		85	115	



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### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWJ2021</b>		Used client sample: Y - Description: MW-24-2, 10/24/2013 12:00								
Hexavalent Chromium	DUP	1323218-11	0.0016570	0.0017160		mg/L	3.5		10	J
	MS	1323218-11	0.0016570	0.053773	0.052632	mg/L		99.0	85 - 115	
	MSD	1323218-11	0.0016570	0.053602	0.052632	mg/L	0.3	98.7	10	85 - 115
<b>QC Batch ID: BWJ2022</b>		Used client sample: Y - Description: MW-24-1, 10/24/2013 12:45								
Hexavalent Chromium	DUP	1323218-12	0.0064090	0.0064840		mg/L	1.2		10	
	MS	1323218-12	0.0064090	0.058994	0.052632	mg/L		99.9	85 - 115	
	MSD	1323218-12	0.0064090	0.058798	0.052632	mg/L	0.3	99.5	10	85 - 115
<b>QC Batch ID: BWJ2363</b>		Used client sample: Y - Description: MW-24-2, 10/24/2013 12:00								
Total Recoverable Chromium	DUP	1323218-11	2.3190	3.3740		ug/L	37.1		20	A02
	MS	1323218-11	2.3190	41.548	40.000	ug/L		98.1	70 - 130	
	MSD	1323218-11	2.3190	42.210	40.000	ug/L	1.6	99.7	20	70 - 130
<b>QC Batch ID: BWJ2461</b>		Used client sample: Y - Description: MW-24-1, 10/24/2013 12:45								
Total Recoverable Chromium	DUP	1323218-12	9.9400	10.098		ug/L	1.6		20	
	MS	1323218-12	9.9400	46.002	40.000	ug/L		90.2	70 - 130	
	MSD	1323218-12	9.9400	46.692	40.000	ug/L	1.5	91.9	20	70 - 130

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**Reported:** 11/08/2013 8:42  
**Project:** JPL- GW Monitoring Wells  
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**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A02 The difference between duplicate readings is less than the PQL.
- A40 Initial calibration linearity criteria not met.
- L01 The Laboratory Control Sample Water (LCSW) recovery is not within laboratory established control limits.
- S09 The surrogate recovery on the sample for this compound was not within the control limits.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.
- V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.
- Z1 The sample was reanalyzed past holding time to confirm original result.





Date of Report: 11/12/2013

David Conner

Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Project: JPL- GW Monitoring Wells  
BC Work Order: 1323307  
Invoice ID: B159690

Enclosed are the results of analyses for samples received by the laboratory on 10/25/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



# Table of Contents

## Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	11

## Sample Results

<b>1323307-01 - TB-5-10/25/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	16
Volatile Organic Analysis (EPA Method 524.2) TICs.....	19
<b>1323307-02 - SB-5-10/25/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	20
Volatile Organic Analysis (EPA Method 524.2) TICs.....	23
Water Analysis (General Chemistry).....	24
Metals Analysis.....	25
<b>1323307-03 - EB-5-10/25/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	26
Volatile Organic Analysis (EPA Method 524.2) TICs.....	29
Water Analysis (General Chemistry).....	30
Metals Analysis.....	31
<b>1323307-04 - MW-25-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	32
Volatile Organic Analysis (EPA Method 524.2) TICs.....	35
Water Analysis (General Chemistry).....	36
Metals Analysis.....	37
<b>1323307-05 - MW-25-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	38
Volatile Organic Analysis (EPA Method 524.2) TICs.....	41
Water Analysis (General Chemistry).....	42
Metals Analysis.....	43
<b>1323307-06 - MW-25-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	44
Volatile Organic Analysis (EPA Method 524.2) TICs.....	47
Water Analysis (General Chemistry).....	48
Metals Analysis.....	49
<b>1323307-07 - MW-25-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	50
Volatile Organic Analysis (EPA Method 524.2) TICs.....	53
Water Analysis (General Chemistry).....	54
Metals Analysis.....	55
<b>1323307-08 - DUPE-4-4Q13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	56
Volatile Organic Analysis (EPA Method 524.2) TICs.....	59
Water Analysis (General Chemistry).....	60
Metals Analysis.....	61
<b>1323307-09 - MW-25-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	62
Volatile Organic Analysis (EPA Method 524.2) TICs.....	65
Water Analysis (General Chemistry).....	66
Metals Analysis.....	67
<b>1323307-10 - MW-21-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	68
Volatile Organic Analysis (EPA Method 524.2) TICs.....	71
Water Analysis (General Chemistry).....	72
Metals Analysis.....	73
<b>1323307-11 - MW-21-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	74



## Table of Contents

Volatile Organic Analysis (EPA Method 524.2) TICs.....	77
Water Analysis (General Chemistry).....	78
Metals Analysis.....	79
<b>1323307-12 - MW-21-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	80
Volatile Organic Analysis (EPA Method 524.2) TICs.....	83
Water Analysis (General Chemistry).....	84
Metals Analysis.....	85
<b>1323307-13 - MW-21-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	86
Volatile Organic Analysis (EPA Method 524.2) TICs.....	89
Water Analysis (General Chemistry).....	90
Metals Analysis.....	91
<b>1323307-14 - MW-21-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	92
Volatile Organic Analysis (EPA Method 524.2) TICs.....	95
Water Analysis (General Chemistry).....	96
Metals Analysis.....	97
<b>Quality Control Reports</b>	
<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	98
Laboratory Control Sample.....	101
Precision and Accuracy.....	102
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	103
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	104
Laboratory Control Sample.....	105
Precision and Accuracy.....	106
<b>Metals Analysis</b>	
Method Blank Analysis.....	107
Laboratory Control Sample.....	108
Precision and Accuracy.....	109
<b>Notes</b>	
Notes and Definitions.....	110



Chain of Custody Form

Page 1 of 2

BC Laboratories, Inc.

\*Required Fields # 13-23307

Report To: Battelle MHTS  
 Client: David Conner  
 Attn: David Conner  
 Street Address: 505 King Ave. Zip: 43201  
 City: Columbus State: OH Fax: (614) 458-5489  
 Phone: (614) 424-5489  
 Email Address: connerd@battelle.org  
 Submission In: [ ]  
 Project Description: JPL-GW Monitoring  
 Project Code: 4013  
 Sampler(s): Blaine Tech

Sample #	Sample Description	Date	Time	Matrix*	Analysis Requested							Notes			
					Total Cr 200.8 (ug/L)	Perchlorate by 314.0	Hexavalent Cr (7196) (mg/L)	Chloride, Nitrate, Sulfate	Orthophosphate 365.1	Nitrite 353.2	DO		Cl <sub>2</sub>	BOD	MBAS
-1	TB-5-10/25/13	10-25-13	0600	AG	X	X	X	X	X	X	X	X	X	X	SHORT HOLDING TIME
-2	SB-2-10/25/13		0610		X	X	X	X	X	X	X	X	X	X	OP SS
-3	EB-5-10/25/13		0615		X	X	X	X	X	X	X	X	X	X	
-4	MW-2.5-5		0650		X	X	X	X	X	X	X	X	X	X	
-5	MW-2.5-4		0725		X	X	X	X	X	X	X	X	X	X	
-6	MW-2.5-3		0755		X	X	X	X	X	X	X	X	X	X	
-7	MW-2.5-2		0820		X	X	X	X	X	X	X	X	X	X	Level IV
-8	DUPE-4-4Q13		0830		X	X	X	X	X	X	X	X	X	X	CHK BY DISTRIBUTION
-9	MW-2.5-1		0910		X	X	X	X	X	X	X	X	X	X	KAO MAINTENANCE
-10	MW-2.1-5		1020		X	X	X	X	X	X	X	X	X	X	
-11	MW-2.1-4		1055	↓	X	X	X	X	X	X	X	X	X	X	SUB-OUT

Matrix Types: 5 = Soil 5L = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

Lab TAT Approval: \_\_\_\_\_ \* Additional Charges May Apply

Cost Center: \_\_\_\_\_ Global ID: \_\_\_\_\_

1. Relinquished By: [Signature] Date: 10-25-13 Time: 1500  
 2. Relinquished By: Nicole Date: 10-25-13 Time: 1545  
 3. Relinquished By: [Signature] Date: 10-25-13 Time: 1940

1. Received By: Nicole Date: 10/25/13 Time: 1500  
 2. Received By: [Signature] Date: 10-25-13 Time: 1545  
 3. Received By: [Signature] Date: 10/25/13 Time: 1940

MBU Site   
 CVX RCRA   
 Geotracker 5 File (CA Default)   
 Geotracker 2 File   
 Other (Specify) \_\_\_\_\_

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-4911 www.bclabs.com



Chain of Custody Form



Page 2 of 2

\*Required Fields 13-23307

Report To: Battelle MHTS  
 Client: David Conner  
 Attn: David Conner  
 Street Address: 505 King Ave.  
 City: Columbus State: OH Zip: 43201  
 Phone: (614) 424-5489 Fax: (614) 458-5489  
 Email Address: connerd@battelle.org  
 Submission #:

Project Description: JPL-GW Monitoring  
 Project Code: 4Q13  
 Sampler(s): Blaine Tech

Sample #	Sample Description	Date	Time	Matrix*
-12	MW-21-3	10-25-13	1120	GB
-13	MW-21-2	↓	1145	↓
-14	MW-21-1	↓	1225	↓

Analysis Requested:  
 VOCs EPA 524.2  
 Total Cr 200.8 (ug/L)  
 Perchlorate by 314.0  
 Hexavalent Cr (7196) (mg/L)  
 Chloride, Nitrate, Sulfate  
 Orthophosphate 365.1  
 Nitrite 353.2

Billing:  
 Client: SAME  
 Attn:  
 Address:  
 City:  
 State:  
 Zip:  
 Are there any tests with holding times? less than or equal to 48 hours?  
 Yes  No  
 \*Standard Turnaround = 10

Notes: MS/MSD

Matrix Types: 5 = Soil 5L = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

Comments:  
 PLEASE NOTIFY WHICH SAMPLES TO USE FOR QC (MS/MSD) 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

Cost Center:  
 1. Relinquished By: [Signature] Time: 1:50 Date: 10-25-13  
 2. Relinquished By: Nicole Time: 1:45 Date: 10/25/13  
 3. Relinquished By: [Signature] Time: 1:40 Date: 10/25/13

Global ID:  
 1. Received By: ANICOLE Time: 1:50 Date: 10/25/13  
 2. Received By: Jen M Time: 1:45 Date: 10/25/13  
 3. Received By: [Signature] Time: 1:40 Date: 10/25/13

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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 1323307 Page 3 of 7

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

Submission #: 13-23307

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Intact? Yes, No.

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

COC Received: YES, NO. Emmissivity: 0.95. Container: GPE. Thermometer ID: 207. Date/Time: 10/25/13. Temperature: (A) 3.3, (C) 3.4. Analyst Init: KIQ 1940.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various test types like GENERAL MINERAL, INORGANIC CHEMICAL METALS, TOX, etc. Handwritten 'A 2' and 'A 3' are present in some cells.



Chain of Custody and Cooler Receipt Form for 1323307 Page 4 of 7

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 of 2

Submission #: 13-23307

SHIPPING INFORMATION Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/>
---	--	--	---

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: Opte Thermometer ID: 207 Date/Time 10/25/13  
 Temperature: (A) 3.3 °C / (C) 3.4 °C Analyst Init KIQ 1940

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
GENERAL MINERAL/ GENERAL										
PE UNPRESERVED										
INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS										
CYANIDE										
NITROGEN FORMS										
TOTAL SULFIDE										
oz. NITRATE / NITRITE										
TOTAL ORGANIC CARBON										
TOX										
CHEMICAL OXYGEN DEMAND										
PHENOLICS										
0ml VOA VIAL TRAVEL BLANK										
0ml VOA VIAL	A 3	A 3	A 9	A 3						
EPA 413.1, 413.2, 418.1										
ODOR										
RADIOLOGICAL										
ACTINOLOGICAL										
0 ml VOA VIAL- 504										
EPA 508/608/8080										
EPA 515.1/8150										
EPA 525										
EPA 525 TRAVEL BLANK										
00ml EPA 547										
00ml EPA 531.1										
EPA 548										
EPA 549										
EPA 632										
EPA 8015M										
AMBER										
OZ. JAR										
2 OZ. JAR										
OIL SLEEVE										
CB VIAL										
LASTIC BAG										
FERROUS IRON										
NCORE										
MART KIT										
umma Canister										

Comments: \_\_\_\_\_



Chain of Custody and Cooler Receipt Form for 1323307 Page 5 of 7

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 5 of 7

Submission #: 13-23307

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. 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: GRE. Thermometer ID: 207. Date/Time: 10/25/13. Analyst Init: KIQ. Temperature: (A) 4.6 °C / (C) 4.7 °C.

Table with columns: SAMPLE CONTAINERS, SAMPLE NUMBERS (1-13). Rows include: GENERAL MINERAL/GENERAL, PE UNPRESERVED, INORGANIC CHEMICAL METALS, CYANIDE, NITROGEN FORMS, TOTAL SULFIDE, NITRATE/NITRITE, TOTAL ORGANIC CARBON, TOX, CHEMICAL OXYGEN DEMAND, PHENOLICS, VOA VIAL TRAVEL BLANK, VOA VIAL, EPA 413.1, 413.2, 418.1, ODOR, RADIOLOGICAL, BACTERIOLOGICAL, VOA VIAL-504, EPA 508/608/8080, EPA 515.1/8150, EPA 525, EPA 525 TRAVEL BLANK, EPA 547, EPA 531.1, EPA 548, EPA 549, EPA 632, EPA 8015M, AMBER, OZ. JAR, 2 OZ. JAR, SOIL SLEEVE, PCB VIAL, PLASTIC BAG, FERROUS IRON, ENCORE, SMART KIT, Summa Canister.

Comments:





Chain of Custody and Cooler Receipt Form for 1323307 Page 6 of 7

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page \_\_\_ Of \_\_\_ Submission #: 13-23307

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:

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

COC Received YES NO Emissivity: 0.95 Container: Ape Thermometer ID: 207 Date/Time 10/25/13 Temperature: (A) 1.5 C (C) 1.6 C Analyst Init KIQ 1940

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various chemical and physical tests like GENERAL MINERAL, INORGANIC CHEMICAL METALS, etc.



Chain of Custody and Cooler Receipt Form for 1323307 Page 7 of 7

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 7 of 7

Submission #: 13-23307

SHIPPING INFORMATION Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---

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

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

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

COC Received  YES  NO Emissivity: 0.95 Container: QTR Thermometer ID: 207 Date/Time 10/25/13  
 Temperature: (A) 4.6 °C / (C) 4.7 °C Analyst Init KIQ 1940

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
GENERAL MINERAL/ GENERAL	B									
PE UNPRESERVED										
INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS	C									
CYANIDE										
NITROGEN FORMS										
TOTAL SULFIDE										
NITRATE /NITRITE										
TOTAL ORGANIC CARBON										
TOX										
CHEMICAL OXYGEN DEMAND										
PHENOLICS										
1 VOA VIAL TRAVEL BLANK										
1 VOA VIAL										
EPA 413.1, 413.2, 418.1										
ODOR										
BIOLOGICAL										
STEREOLOGICAL										
1 VOA VIAL- 504										
EPA 508/608/8080										
EPA 515.1/8150										
EPA 525										
EPA 525 TRAVEL BLANK										
1 EPA 547										
1 EPA 531.1										
EPA 548										
EPA 549										
EPA 632										
EPA 8015M										
AMBER										
1 JAR										
2 JAR										
1 SLEEVE										
VIAL										
STIC BAG										
ROUS IRON										
ORE										
RT KIT										
100 Canister										
NAME:										



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323307-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-5-10/25/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 06:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-5-10/25/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323307-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> SB-5-10/25/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 06:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): SB-5-10/25/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323307-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-5-10/25/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 06:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-5-10/25/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323307-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 06:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323307-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 07:25 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323307-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 07:55 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323307-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 08:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323307-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUPE-4-4Q13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 08:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUPE-4-4Q13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323307-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 09:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323307-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-21-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 10:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-21-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323307-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-21-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 10:55 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-21-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323307-12</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-21-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 11:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-21-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323307-13</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-21-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 11:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-21-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323307-14</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-21-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/25/2013 19:40 <b>Sampling Date:</b> 10/25/2013 12:25 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-21-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-01	<b>Client Sample Name:</b> JPL-GW, TB-5-10/25/13, 10/25/2013 6:00:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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.





Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-01	<b>Client Sample Name:</b> JPL-GW, TB-5-10/25/13, 10/25/2013 6:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-01	<b>Client Sample Name:</b> JPL-GW, TB-5-10/25/13, 10/25/2013 6:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 22:24	MGC	MS-V5	1	BWJ2116

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Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-01	<b>Client Sample Name:</b> JPL-GW, TB-5-10/25/13, 10/25/2013 6:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 22:24	MGC	MS-V5	1	BWJ2116



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-02	<b>Client Sample Name:</b> JPL-GW, SB-5-10/25/13, 10/25/2013 6:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-02	<b>Client Sample Name:</b> JPL-GW, SB-5-10/25/13, 10/25/2013 6:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-02	<b>Client Sample Name:</b> JPL-GW, SB-5-10/25/13, 10/25/2013 6:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	106	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 22:47	MGC	MS-V5	1	BWJ2116



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-02	<b>Client Sample Name:</b> JPL-GW, SB-5-10/25/13, 10/25/2013 6:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 22:47	MGC	MS-V5	1	BWJ2116



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-02	<b>Client Sample Name:</b> JPL-GW, SB-5-10/25/13, 10/25/2013 6:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 14:29	LD1	IC6	1	BWK0659

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-02	<b>Client Sample Name:</b> JPL-GW, SB-5-10/25/13, 10/25/2013 6:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 22:19	LS1	KONE-1	1	BWJ2145
2	EPA-200.8	10/31/13	10/31/13 19:26	SRM	PE-EL2	1	BWJ2461



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-03	<b>Client Sample Name:</b> JPL-GW, EB-5-10/25/13, 10/25/2013 6:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-03	<b>Client Sample Name:</b> JPL-GW, EB-5-10/25/13, 10/25/2013 6:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-03	<b>Client Sample Name:</b> JPL-GW, EB-5-10/25/13, 10/25/2013 6:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	88.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	89.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 23:10	MGC	MS-V5	1	BWJ2116

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505 King Ave.  
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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-03	<b>Client Sample Name:</b> JPL-GW, EB-5-10/25/13, 10/25/2013 6:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 23:10	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-03	<b>Client Sample Name:</b> JPL-GW, EB-5-10/25/13, 10/25/2013 6:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 14:43	LD1	IC6	1	BWK0659

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-03	<b>Client Sample Name:</b> JPL-GW, EB-5-10/25/13, 10/25/2013 6:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/25/13	10/25/13 22:19	LS1	KONE-1	1	BWJ2145
2	EPA-200.8	10/31/13	10/31/13 19:29	SRM	PE-EL2	1	BWJ2461



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-04	<b>Client Sample Name:</b> JPL-GW, MW-25-5, 10/25/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-04	<b>Client Sample Name:</b> JPL-GW, MW-25-5, 10/25/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.66</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.38</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-04	<b>Client Sample Name:</b> JPL-GW, MW-25-5, 10/25/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	109	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	106	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 23:32	MGC	MS-V5	1	BWJ2116



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505 King Ave.  
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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-04	<b>Client Sample Name:</b> JPL-GW, MW-25-5, 10/25/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 23:32	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-04	<b>Client Sample Name:</b> JPL-GW, MW-25-5, 10/25/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 14:57	LD1	IC6	1	BWK0659



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-04	<b>Client Sample Name:</b> JPL-GW, MW-25-5, 10/25/2013 6:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/25/13	10/25/13 22:19	LS1	KONE-1	1	BWJ2145
2	EPA-200.8	10/31/13	10/31/13 19:33	SRM	PE-EL2	1	BWJ2461

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-05	<b>Client Sample Name:</b> JPL-GW, MW-25-4, 10/25/2013 7:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-05	<b>Client Sample Name:</b> JPL-GW, MW-25-4, 10/25/2013 7:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
<b>Carbon disulfide</b>	<b>0.52</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.38</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-05	<b>Client Sample Name:</b> JPL-GW, MW-25-4, 10/25/2013 7:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	103	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 23:55	MGC	MS-V5	1	BWJ2116

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-05	<b>Client Sample Name:</b> JPL-GW, MW-25-4, 10/25/2013 7:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 23:55	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-05	<b>Client Sample Name:</b> JPL-GW, MW-25-4, 10/25/2013 7:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	10	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 15:11	LD1	IC6	1	BWK0659



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-05	<b>Client Sample Name:</b> JPL-GW, MW-25-4, 10/25/2013 7:25:00AM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 22:19	LS1	KONE-1	1	BWJ2145
2	EPA-200.8	10/31/13	10/31/13 19:36	SRM	PE-EL2	1	BWJ2461

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Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-06	<b>Client Sample Name:</b> JPL-GW, MW-25-3, 10/25/2013 7:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.87</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Columbus, OH 43201

Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-06	<b>Client Sample Name:</b> JPL-GW, MW-25-3, 10/25/2013 7:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.21</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-06	<b>Client Sample Name:</b> JPL-GW, MW-25-3, 10/25/2013 7:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	87.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 00:18	MGC	MS-V5	1	BWJ2116

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-06	<b>Client Sample Name:</b> JPL-GW, MW-25-3, 10/25/2013 7:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 00:18	MGC	MS-V5	1	BWJ2116

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-06	<b>Client Sample Name:</b> JPL-GW, MW-25-3, 10/25/2013 7:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	13	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 15:24	LD1	IC6	1	BWK0659

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-06	<b>Client Sample Name:</b> JPL-GW, MW-25-3, 10/25/2013 7:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0021	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	2.4	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 22:19	LS1	KONE-1	1	BWJ2145
2	EPA-200.8	10/31/13	10/31/13 19:39	SRM	PE-EL2	1	BWJ2461

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Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-07	<b>Client Sample Name:</b> JPL-GW, MW-25-2, 10/25/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.14</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-07	<b>Client Sample Name:</b> JPL-GW, MW-25-2, 10/25/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.20</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-07	<b>Client Sample Name:</b> JPL-GW, MW-25-2, 10/25/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	92.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	109	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 00:41	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-07	<b>Client Sample Name:</b> JPL-GW, MW-25-2, 10/25/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 00:41	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-07	<b>Client Sample Name:</b> JPL-GW, MW-25-2, 10/25/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	15	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 15:38	LD1	IC6	1	BWK0659



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-07	<b>Client Sample Name:</b> JPL-GW, MW-25-2, 10/25/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0011	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.5	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 22:26	LS1	KONE-1	1	BWJ2145
2	EPA-200.8	10/31/13	10/31/13 19:42	SRM	PE-EL2	1	BWJ2461

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Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-08	<b>Client Sample Name:</b> JPL-GW, DUPE-4-4Q13, 10/25/2013 8:30:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.17</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-08	<b>Client Sample Name:</b> JPL-GW, DUPE-4-4Q13, 10/25/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.20</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-08	<b>Client Sample Name:</b> JPL-GW, DUPE-4-4Q13, 10/25/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	85.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 01:03	MGC	MS-V5	1	BWJ2116

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-08	<b>Client Sample Name:</b> JPL-GW, DUPE-4-4Q13, 10/25/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 01:03	MGC	MS-V5	1	BWJ2116



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Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-08	<b>Client Sample Name:</b> JPL-GW, DUPE-4-4Q13, 10/25/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	16	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 17:01	LD1	IC6	1	BWK0659



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-08	<b>Client Sample Name:</b> JPL-GW, DUPE-4-4Q13, 10/25/2013 8:30:00AM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0011	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
<b>Total Recoverable Chromium</b>	<b>3.7</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	<b>1.4</b>		<b>2</b>

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 22:26	LS1	KONE-1	1	BWJ2145
2	EPA-200.8	11/05/13	11/05/13 18:14	SRM	PE-EL2	1	BWK0280

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Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-09	<b>Client Sample Name:</b> JPL-GW, MW-25-1, 10/25/2013 9:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.62</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-09	<b>Client Sample Name:</b> JPL-GW, MW-25-1, 10/25/2013 9:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
<b>Methyl t-butyl ether</b>	<b>0.27</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>2.5</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-09	<b>Client Sample Name:</b> JPL-GW, MW-25-1, 10/25/2013 9:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	86.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	105	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 01:26	MGC	MS-V5	1	BWJ2116





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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-09	<b>Client Sample Name:</b> JPL-GW, MW-25-1, 10/25/2013 9:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 01:26	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-09	<b>Client Sample Name:</b> JPL-GW, MW-25-1, 10/25/2013 9:10:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	11	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 17:15	LD1	IC6	1	BWK0659



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**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-09	<b>Client Sample Name:</b> JPL-GW, MW-25-1, 10/25/2013 9:10:00AM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.4	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 22:26	LS1	KONE-1	1	BWJ2145
2	EPA-200.8	11/05/13	11/05/13 18:17	SRM	PE-EL2	1	BWK0280

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Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-10	<b>Client Sample Name:</b> JPL-GW, MW-21-5, 10/25/2013 10:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>5.8</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	1323307-10							Client Sample Name:	JPL-GW, MW-21-5, 10/25/2013 10:20:00AM, Blaine Tech				
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #					
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1					
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1					
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1					
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1					
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1					
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1					
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1					
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1					
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1					
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1					
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1					
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1					
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1					
<b>Tetrachloroethene</b>	<b>0.84</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1					
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1					
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1					
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1					
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1					
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1					
<b>Trichloroethene</b>	<b>0.11</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1					
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1					
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1					
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1					
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1					
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1					
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1					
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1					
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1					
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1					
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1					
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1					
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1					
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1					

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-10	<b>Client Sample Name:</b> JPL-GW, MW-21-5, 10/25/2013 10:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	119	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 01:49	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-10	<b>Client Sample Name:</b> JPL-GW, MW-21-5, 10/25/2013 10:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 01:49	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-10	<b>Client Sample Name:</b> JPL-GW, MW-21-5, 10/25/2013 10:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.0	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 17:29	LD1	IC6	1	BWK0659





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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-10	<b>Client Sample Name:</b> JPL-GW, MW-21-5, 10/25/2013 10:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0010	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.3	ug/L	3.0	0.50	EPA-200.8	1.4	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 22:26	LS1	KONE-1	1	BWJ2145
2	EPA-200.8	11/05/13	11/05/13 18:21	SRM	PE-EL2	1	BWK0280

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Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-11	<b>Client Sample Name:</b> JPL-GW, MW-21-4, 10/25/2013 10:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>8.8</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.15</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-11	<b>Client Sample Name:</b> JPL-GW, MW-21-4, 10/25/2013 10:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.81</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.14</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-11	<b>Client Sample Name:</b> JPL-GW, MW-21-4, 10/25/2013 10:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	86.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 02:11	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-11	<b>Client Sample Name:</b> JPL-GW, MW-21-4, 10/25/2013 10:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 02:11	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-11	<b>Client Sample Name:</b> JPL-GW, MW-21-4, 10/25/2013 10:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	2.1	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 17:43	LD1	IC6	1	BWK0659



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-11	<b>Client Sample Name:</b> JPL-GW, MW-21-4, 10/25/2013 10:55:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.9</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.4	J	2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/25/13	10/25/13 22:29	LS1	KONE-1	1	BWJ2146
2	EPA-200.8	11/05/13	11/05/13 18:24	SRM	PE-EL2	1	BWK0280

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Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-12	<b>Client Sample Name:</b> JPL-GW, MW-21-3, 10/25/2013 11:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.4</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.16</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.71</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-12	<b>Client Sample Name:</b> JPL-GW, MW-21-3, 10/25/2013 11:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
<b>Methyl t-butyl ether</b>	<b>0.31</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	J	1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>3.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.90</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-12	<b>Client Sample Name:</b> JPL-GW, MW-21-3, 10/25/2013 11:20:00AM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	83.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 02:34	MGC	MS-V5	1	BWJ2116

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-12	<b>Client Sample Name:</b> JPL-GW, MW-21-3, 10/25/2013 11:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 02:34	MGC	MS-V5	1	BWJ2116



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Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-12	<b>Client Sample Name:</b> JPL-GW, MW-21-3, 10/25/2013 11:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.5	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 17:57	LD1	IC6	1	BWK0659

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-12	<b>Client Sample Name:</b> JPL-GW, MW-21-3, 10/25/2013 11:20:00AM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>2.0</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.4	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 22:29	LS1	KONE-1	1	BWJ2146
2	EPA-200.8	11/05/13	11/05/13 18:27	SRM	PE-EL2	1	BWK0280



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505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-13	<b>Client Sample Name:</b> JPL-GW, MW-21-2, 10/25/2013 11:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.61</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.15</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-13	<b>Client Sample Name:</b> JPL-GW, MW-21-2, 10/25/2013 11:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
<b>Methyl t-butyl ether</b>	<b>0.21</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>1.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.29</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-13	<b>Client Sample Name:</b> JPL-GW, MW-21-2, 10/25/2013 11:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	86.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 20:08	MGC	MS-V5	1	BWJ2116





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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-13	<b>Client Sample Name:</b> JPL-GW, MW-21-2, 10/25/2013 11:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/28/13 20:08	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-13	<b>Client Sample Name:</b> JPL-GW, MW-21-2, 10/25/2013 11:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.5	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/07/13 19:06	LD1	IC6	1	BWK0660



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-13	<b>Client Sample Name:</b> JPL-GW, MW-21-2, 10/25/2013 11:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>1.3</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.4	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 22:44	LS1	KONE-1	1	BWJ2146
2	EPA-200.8	11/05/13	11/05/13 17:47	SRM	PE-EL2	1	BWK0280



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Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-14	<b>Client Sample Name:</b> JPL-GW, MW-21-1, 10/25/2013 12:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.4</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-14	<b>Client Sample Name:</b> JPL-GW, MW-21-1, 10/25/2013 12:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.42</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.88</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323307-14	<b>Client Sample Name:</b> JPL-GW, MW-21-1, 10/25/2013 12:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	A40,V01	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	88.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	119	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 02:57	MGC	MS-V5	1	BWJ2116

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Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323307-14	<b>Client Sample Name:</b> JPL-GW, MW-21-1, 10/25/2013 12:25:00PM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/28/13	10/29/13 02:57	MGC	MS-V5	1	BWJ2116



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323307-14	<b>Client Sample Name:</b> JPL-GW, MW-21-1, 10/25/2013 12:25:00PM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	9.3	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/07/13	11/08/13 08:30	LD1	IC6	1	BWK0660

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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323307-14	<b>Client Sample Name:</b> JPL-GW, MW-21-1, 10/25/2013 12:25:00PM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>3.9</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	1.4		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/25/13	10/25/13 22:29	LS1	KONE-1	1	BWJ2146
2	EPA-200.8	11/05/13	11/05/13 18:30	SRM	PE-EL2	1	BWK0280

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Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2116</b>						
Benzene	BWJ2116-BLK1	ND	ug/L	0.50	0.083	
Bromobenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.13	
Bromochloromethane	BWJ2116-BLK1	ND	ug/L	0.50	0.24	
Bromodichloromethane	BWJ2116-BLK1	ND	ug/L	0.50	0.14	
Bromoform	BWJ2116-BLK1	ND	ug/L	0.50	0.27	
Bromomethane	BWJ2116-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.11	
sec-Butylbenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.15	
tert-Butylbenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.13	
Carbon tetrachloride	BWJ2116-BLK1	ND	ug/L	0.50	0.18	
Chlorobenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.093	
Chloroethane	BWJ2116-BLK1	ND	ug/L	0.50	0.14	
Chloroform	BWJ2116-BLK1	ND	ug/L	0.50	0.12	
Chloromethane	BWJ2116-BLK1	ND	ug/L	0.50	0.14	
2-Chlorotoluene	BWJ2116-BLK1	ND	ug/L	0.50	0.20	
4-Chlorotoluene	BWJ2116-BLK1	ND	ug/L	0.50	0.15	
Dibromochloromethane	BWJ2116-BLK1	ND	ug/L	0.50	0.13	
1,2-Dibromo-3-chloropropane	BWJ2116-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane	BWJ2116-BLK1	ND	ug/L	0.50	0.16	
Dibromomethane	BWJ2116-BLK1	ND	ug/L	0.50	0.24	
1,2-Dichlorobenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.072	
1,3-Dichlorobenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.15	
1,4-Dichlorobenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.062	
Dichlorodifluoromethane	BWJ2116-BLK1	ND	ug/L	0.50	0.099	
1,1-Dichloroethane	BWJ2116-BLK1	ND	ug/L	0.50	0.11	
1,2-Dichloroethane	BWJ2116-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	BWJ2116-BLK1	ND	ug/L	0.50	0.18	
cis-1,2-Dichloroethene	BWJ2116-BLK1	ND	ug/L	0.50	0.085	
trans-1,2-Dichloroethene	BWJ2116-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloropropane	BWJ2116-BLK1	ND	ug/L	0.50	0.13	
1,3-Dichloropropane	BWJ2116-BLK1	ND	ug/L	0.50	0.086	
2,2-Dichloropropane	BWJ2116-BLK1	ND	ug/L	0.50	0.13	
1,1-Dichloropropene	BWJ2116-BLK1	ND	ug/L	0.50	0.085	
cis-1,3-Dichloropropene	BWJ2116-BLK1	ND	ug/L	0.50	0.14	

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**Reported:** 11/12/2013 9:36  
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Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2116</b>						
trans-1,3-Dichloropropene	BWJ2116-BLK1	ND	ug/L	0.50	0.079	
Ethylbenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.098	
Hexachlorobutadiene	BWJ2116-BLK1	ND	ug/L	0.50	0.17	
Isopropylbenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	BWJ2116-BLK1	ND	ug/L	0.50	0.12	
Methylene chloride	BWJ2116-BLK1	ND	ug/L	0.50	0.48	
Methyl t-butyl ether	BWJ2116-BLK1	ND	ug/L	0.50	0.11	
Naphthalene	BWJ2116-BLK1	ND	ug/L	0.50	0.36	
n-Propylbenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.11	
Styrene	BWJ2116-BLK1	ND	ug/L	0.50	0.068	
1,1,1,2-Tetrachloroethane	BWJ2116-BLK1	ND	ug/L	0.50	0.18	
1,1,2,2-Tetrachloroethane	BWJ2116-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	BWJ2116-BLK1	ND	ug/L	0.50	0.13	
Toluene	BWJ2116-BLK1	ND	ug/L	0.50	0.093	
1,2,3-Trichlorobenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.16	
1,2,4-Trichlorobenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.19	
1,1,1-Trichloroethane	BWJ2116-BLK1	ND	ug/L	0.50	0.11	
1,1,2-Trichloroethane	BWJ2116-BLK1	ND	ug/L	0.50	0.16	
Trichloroethene	BWJ2116-BLK1	ND	ug/L	0.50	0.085	
Trichlorofluoromethane	BWJ2116-BLK1	ND	ug/L	0.50	0.13	
1,2,3-Trichloropropane	BWJ2116-BLK1	ND	ug/L	1.0	0.24	
1,1,2-Trichloro-1,2,2-trifluoroethane	BWJ2116-BLK1	ND	ug/L	0.50	0.15	
1,2,4-Trimethylbenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.12	
1,3,5-Trimethylbenzene	BWJ2116-BLK1	ND	ug/L	0.50	0.12	
Vinyl chloride	BWJ2116-BLK1	ND	ug/L	0.50	0.12	
Acetone	BWJ2116-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BWJ2116-BLK1	ND	ug/L	5.0	1.2	
Allyl chloride	BWJ2116-BLK1	ND	ug/L	5.0	0.80	
t-Amyl Methyl ether	BWJ2116-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BWJ2116-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BWJ2116-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BWJ2116-BLK1	ND	ug/L	5.0	1.4	
Diethyl ether	BWJ2116-BLK1	ND	ug/L	2.0	0.21	
Ethyl methacrylate	BWJ2116-BLK1	ND	ug/L	4.0	0.97	

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**Reported:** 11/12/2013 9:36  
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Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2116</b>						
Ethyl t-butyl ether	BWJ2116-BLK1	ND	ug/L	0.50	0.18	
Hexachloroethane	BWJ2116-BLK1	ND	ug/L	0.50	0.16	
2-Hexanone	BWJ2116-BLK1	ND	ug/L	10	3.4	
Methacrylonitrile	BWJ2116-BLK1	ND	ug/L	10	1.7	
Methyl ethyl ketone	BWJ2116-BLK1	ND	ug/L	10	2.5	
Methyl iodide	BWJ2116-BLK1	ND	ug/L	2.0	0.47	
Methyl isobutyl ketone	BWJ2116-BLK1	ND	ug/L	10	2.1	
Methyl methacrylate	BWJ2116-BLK1	ND	ug/L	5.0	1.5	
Pentachloroethane	BWJ2116-BLK1	ND	ug/L	2.0	0.43	
Propionitrile	BWJ2116-BLK1	ND	ug/L	20	4.2	
Tetrahydrofuran	BWJ2116-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	BWJ2116-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BWJ2116-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	BWJ2116-BLK1	98.7	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWJ2116-BLK1	100	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWJ2116-BLK1	81.1	%	80 - 120 (LCL - UCL)		



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## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2116</b>										
Benzene	BWJ2116-BS1	LCS	24.390	25.000	ug/L	97.6		70 - 130		
Bromodichloromethane	BWJ2116-BS1	LCS	25.410	25.000	ug/L	102		70 - 130		
Chlorobenzene	BWJ2116-BS1	LCS	24.710	25.000	ug/L	98.8		70 - 130		
Chloroethane	BWJ2116-BS1	LCS	25.100	25.000	ug/L	100		70 - 130		
1,4-Dichlorobenzene	BWJ2116-BS1	LCS	19.400	25.000	ug/L	77.6		70 - 130		
1,1-Dichloroethane	BWJ2116-BS1	LCS	23.910	25.000	ug/L	95.6		70 - 130		
1,1-Dichloroethene	BWJ2116-BS1	LCS	24.700	25.000	ug/L	98.8		70 - 130		
Toluene	BWJ2116-BS1	LCS	24.650	25.000	ug/L	98.6		70 - 130		
Trichloroethene	BWJ2116-BS1	LCS	27.250	25.000	ug/L	109		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BWJ2116-BS1	LCS	9.3800	10.000	ug/L	93.8		75 - 125		
Toluene-d8 (Surrogate)	BWJ2116-BS1	LCS	9.9000	10.000	ug/L	99.0		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWJ2116-BS1	LCS	10.140	10.000	ug/L	101		80 - 120		



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### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery		Lab
								RPD	Percent Recovery	
<b>QC Batch ID: BWJ2116</b>										
Used client sample: Y - Description: MW-21-2, 10/25/2013 11:45										
Benzene	MS	1323307-13	ND	25.050	25.000	ug/L		100		70 - 130
	MSD	1323307-13	ND	25.450	25.000	ug/L	1.6	102	20	70 - 130
Bromodichloromethane	MS	1323307-13	ND	26.140	25.000	ug/L		105		70 - 130
	MSD	1323307-13	ND	26.400	25.000	ug/L	1.0	106	20	70 - 130
Chlorobenzene	MS	1323307-13	ND	26.570	25.000	ug/L		106		70 - 130
	MSD	1323307-13	ND	25.370	25.000	ug/L	4.6	101	20	70 - 130
Chloroethane	MS	1323307-13	ND	26.100	25.000	ug/L		104		70 - 130
	MSD	1323307-13	ND	26.340	25.000	ug/L	0.9	105	20	70 - 130
1,4-Dichlorobenzene	MS	1323307-13	ND	26.860	25.000	ug/L		107		70 - 130
	MSD	1323307-13	ND	20.110	25.000	ug/L	28.7	80.4	20	70 - 130 Q02
1,1-Dichloroethane	MS	1323307-13	ND	24.700	25.000	ug/L		98.8		70 - 130
	MSD	1323307-13	ND	25.590	25.000	ug/L	3.5	102	20	70 - 130
1,1-Dichloroethene	MS	1323307-13	ND	24.650	25.000	ug/L		98.6		70 - 130
	MSD	1323307-13	ND	26.010	25.000	ug/L	5.4	104	20	70 - 130
Toluene	MS	1323307-13	ND	24.510	25.000	ug/L		98.0		70 - 130
	MSD	1323307-13	ND	25.980	25.000	ug/L	5.8	104	20	70 - 130
Trichloroethene	MS	1323307-13	0.29000	26.420	25.000	ug/L		105		70 - 130
	MSD	1323307-13	0.29000	26.460	25.000	ug/L	0.2	105	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1323307-13	ND	9.3400	10.000	ug/L		93.4		75 - 125
	MSD	1323307-13	ND	9.4500	10.000	ug/L	1.2	94.5		75 - 125
Toluene-d8 (Surrogate)	MS	1323307-13	ND	9.9200	10.000	ug/L		99.2		80 - 120
	MSD	1323307-13	ND	10.020	10.000	ug/L	1.0	100		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1323307-13	ND	12.830	10.000	ug/L		128		80 - 120 S09
	MSD	1323307-13	ND	10.100	10.000	ug/L	23.8	101		80 - 120

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Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2116</b>						
Chloroacetonitrile	BWJ2116-BLK1	0	ug/L			
1-Chlorobutane	BWJ2116-BLK1	0	ug/L			
1,1-Dichloropropanone	BWJ2116-BLK1	0	ug/L			
Methyl acrylate	BWJ2116-BLK1	0	ug/L			
Nitrobenzene	BWJ2116-BLK1	0	ug/L			
2-Nitropropane	BWJ2116-BLK1	0	ug/L			



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## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWK0659</b>						
Perchlorate	BWK0659-BLK1	ND	ug/L	4.0	0.81	
<b>QC Batch ID: BWK0660</b>						
Perchlorate	BWK0660-BLK1	ND	ug/L	4.0	0.81	





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### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWK0659</b>										
Perchlorate	BWK0659-BS1	LCS	10.758	10.000	ug/L	108		85 - 115		
<b>QC Batch ID: BWK0660</b>										
Perchlorate	BWK0660-BS1	LCS	11.019	10.000	ug/L	110		85 - 115		



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### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BWK0659</b>		Used client sample: Y - Description: MW-25-2, 10/25/2013 08:20								
Perchlorate	DUP	1323307-07	15.401	16.615		ug/L	7.6		15	
	MS	1323307-07	15.401	26.323	10.101	ug/L		108		80 - 120
	MSD	1323307-07	15.401	26.266	10.101	ug/L	0.2	108	15	80 - 120
<b>QC Batch ID: BWK0660</b>		Used client sample: Y - Description: MW-21-2, 10/25/2013 11:45								
Perchlorate	DUP	1323307-13	3.4976	3.9230		ug/L	11.5		15	J
	MS	1323307-13	3.4976	13.225	10.101	ug/L		96.3		80 - 120
	MSD	1323307-13	3.4976	13.777	10.101	ug/L	4.1	102	15	80 - 120

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### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2145</b>						
Hexavalent Chromium	BWJ2145-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWJ2146</b>						
Hexavalent Chromium	BWJ2146-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWJ2461</b>						
Total Recoverable Chromium	BWJ2461-BLK1	ND	ug/L	3.0	0.50	
<b>QC Batch ID: BWK0280</b>						
Total Recoverable Chromium	BWK0280-BLK1	1.4160	ug/L	3.0	0.50	J



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2145</b>										
Hexavalent Chromium	BWJ2145-BS1	LCS	0.050109	0.050000	mg/L	100		85 - 115		
<b>QC Batch ID: BWJ2146</b>										
Hexavalent Chromium	BWJ2146-BS1	LCS	0.049271	0.050000	mg/L	98.5		85 - 115		
<b>QC Batch ID: BWJ2461</b>										
Total Recoverable Chromium	BWJ2461-BS1	LCS	39.040	40.000	ug/L	97.6		85 - 115		
<b>QC Batch ID: BWK0280</b>										
Total Recoverable Chromium	BWK0280-BS1	LCS	39.956	40.000	ug/L	99.9		85 - 115		



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Columbus, OH 43201

Reported: 11/12/2013 9:36  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWJ2145</b>		Used client sample: Y - Description: SB-5-10/25/13, 10/25/2013 06:10								
Hexavalent Chromium	DUP	1323307-02	ND	ND		mg/L			10	
	MS	1323307-02	ND	0.050041	0.052632	mg/L		95.1		85 - 115
	MSD	1323307-02	ND	0.051354	0.052632	mg/L	2.6	97.6	10	85 - 115
<b>QC Batch ID: BWJ2146</b>		Used client sample: Y - Description: MW-21-2, 10/25/2013 11:45								
Hexavalent Chromium	DUP	1323307-13	ND	ND		mg/L			10	
	MS	1323307-13	ND	0.053344	0.052632	mg/L		101		85 - 115
	MSD	1323307-13	ND	0.053469	0.052632	mg/L	0.2	102	10	85 - 115
<b>QC Batch ID: BWJ2461</b>		Used client sample: Y - Description: MW-24-1, 10/24/2013 12:45								
Total Recoverable Chromium	DUP	1323218-12	9.9400	10.098		ug/L	1.6		20	
	MS	1323218-12	9.9400	46.002	40.000	ug/L		90.2		70 - 130
	MSD	1323218-12	9.9400	46.692	40.000	ug/L	1.5	91.9	20	70 - 130
<b>QC Batch ID: BWK0280</b>		Used client sample: Y - Description: MW-21-2, 10/25/2013 11:45								
Total Recoverable Chromium	DUP	323307-13RE'	1.3020	1.3650		ug/L	4.7		20	J
	MS	323307-13RE'	1.3020	37.013	40.000	ug/L		89.3		70 - 130
	MSD	323307-13RE'	1.3020	36.964	40.000	ug/L	0.1	89.2	20	70 - 130

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.



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**Reported:** 11/12/2013 9:36  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A40 Initial calibration linearity criteria not met.
- Q02 Matrix spike precision is not within the control limits.
- S09 The surrogate recovery on the sample for this compound was not within the control limits.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.
- V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.



Date of Report: 11/12/2013

David Conner

Battelle MHTS

505 King Ave.

Columbus, OH 43201

Project: JPL- GW Monitoring Wells

BC Work Order: 1323375

Invoice ID: B159763

Enclosed are the results of analyses for samples received by the laboratory on 10/28/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



# Table of Contents

## Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	7

## Sample Results

<b>1323375-01 - TB-6-10/28/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	11
Volatile Organic Analysis (EPA Method 524.2) TICs.....	14
<b>1323375-02 - EB-6-10/28/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	15
Volatile Organic Analysis (EPA Method 524.2) TICs.....	18
Water Analysis (General Chemistry).....	19
Metals Analysis.....	20
<b>1323375-03 - MW-17-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	21
Volatile Organic Analysis (EPA Method 524.2) TICs.....	24
Water Analysis (General Chemistry).....	25
Metals Analysis.....	26
<b>1323375-04 - MW-17-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	27
Volatile Organic Analysis (EPA Method 524.2) TICs.....	30
Water Analysis (General Chemistry).....	31
Metals Analysis.....	32
<b>1323375-05 - MW-17-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	33
Volatile Organic Analysis (EPA Method 524.2) TICs.....	36
Water Analysis (General Chemistry).....	37
Metals Analysis.....	38
<b>1323375-06 - MW-17-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	39
Volatile Organic Analysis (EPA Method 524.2) TICs.....	42
Water Analysis (General Chemistry).....	43
Metals Analysis.....	44
<b>1323375-07 - MW-17-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	45
Volatile Organic Analysis (EPA Method 524.2) TICs.....	48
Water Analysis (General Chemistry).....	49
Metals Analysis.....	50
<b>1323375-08 - MW-18-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	51
Volatile Organic Analysis (EPA Method 524.2) TICs.....	54
Water Analysis (General Chemistry).....	55
Metals Analysis.....	56
<b>1323375-09 - MW-18-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	57
Volatile Organic Analysis (EPA Method 524.2) TICs.....	60
Water Analysis (General Chemistry).....	61
Metals Analysis.....	62
<b>1323375-10 - MW-18-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	63
Volatile Organic Analysis (EPA Method 524.2) TICs.....	66
Water Analysis (General Chemistry).....	67
Metals Analysis.....	68
<b>1323375-11 - MW-18-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	69





## Table of Contents

Volatile Organic Analysis (EPA Method 524.2) TICs.....	72
Water Analysis (General Chemistry).....	73
Metals Analysis.....	74
<b>Quality Control Reports</b>	
<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	75
Laboratory Control Sample.....	78
Precision and Accuracy.....	79
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	80
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	81
Laboratory Control Sample.....	82
Precision and Accuracy.....	83
<b>Metals Analysis</b>	
Method Blank Analysis.....	84
Laboratory Control Sample.....	85
Precision and Accuracy.....	86
<b>Notes</b>	
Notes and Definitions.....	87



Chain of Custody Form



Report to: Battelle MHTS  
 Client: David Corner  
 Attn: David Corner  
 Street Address: 505 King Ave.  
 City: Columbus State: OH Zip: 43201  
 Phone: (614) 424-5489 Fax: (614) 458-5489  
 Email Address: cornerd@battelle.org  
 Submission #: 13-03375

Project Description: JPL-GW Monitoring  
 Project Code: 4Q13  
 Sampler(s): Blaine Tech

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days: 24 Hr Rush 48 Hr Rush 3-5 Day Rush Normal (10 - Days)

Lab TAT Approval: Additional Charges May Apply

Sample #	Sample Description	Date	Time	Matrix*	VOCs EPA 524.2	Total Cr 200.8 (ug/L)	Perchlorate by 314.0	Hexavalent Cr (7196) (mg/L)	Chloride, Nitrate, Sulfate	Orthophosphate 365.1	Nitrite 353.2	Analysis Requested	Billing
-1	TB-6-10-12-13	10-28-13	0700	W	X	X	X	X					SAME
-2	EB-6-10-12-13		0720	W	X	X	X	X					
-3	MW-17-3		0745	W	X	X	X	X					
-4	MW-17-4		0825	W	X	X	X	X					
-5	MW-17-3		0850	W	X	X	X	X					
-6	MW-17-2		0970	W	X	X	X	X					
-7	MW-17-1		0950	W	X	X	X	X					
-8	MW-18-5		1100	W	X	X	X	X					
-9	MW-18-4		1140	W	X	X	X	X					
-10	MW-18-3		1210	W	X	X	X	X					
-11	MW-18-2		1300	W	X	X	X	X					

Notes: CHK BY DISTRIBUTION  
 SUB OUT  
 SHORT HOLDING TIME  
 DO Cl<sub>2</sub> BOD MBAS  
 Level IV / MS/MSD

Client: SAME  
 Address: State: Zip:  
 City: Are there any tests with holding times less than or equal to 48 hours?  
 Yes  No  
 \*Standard Turnaround = 10

Cost Center: 1. Requisitioned By: 2. Requisitioned By: 3. Requisitioned By:  
 Date: 10-28-13 1450 Time: 10/28/13 1450  
 Date: 10/28/13 1615 Time: 10/28/13 1615  
 Date: 10/28/13 1940 Time: 10-28-13 1940

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327 - 4911 Fax: (661) 327 - 1918 www.bclabs.com



Chain of Custody and Cooler Receipt Form for 1323375 Page 2 of 3

LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 Of

Submission #: 13-23375

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. Comments:

Samples received? All samples containers intact? Description(s) match COC?

COC Received: YES, NO. Emissivity: 0.97, Container: Voa, Thermometer ID: 207, Date/Time: 10-25-13 1940, Temperature: (A) 2.3, (C) 2.2, Analyst Init: SAS

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various test types like GENERAL MINERAL, INORGANIC CHEMICAL METALS, etc.

Labels: K10, 11/28/13 @ 2:25

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Chain of Custody and Cooler Receipt Form for 1323375 Page 3 of 3

LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page \_\_\_ Of \_\_\_

Submission #: 13-23375

SHIPPING INFORMATION Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	--	--	---

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

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

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

COC Received  YES  NO

Emissivity: 0.97 Container: Voa Thermometer ID: 207 Date/Time 10-28-13 1940  
 Temperature: (A) 2.3 °C / (C) 2.2 °C Analyst Init SAS

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
GENERAL MINERAL/ GENERAL	B									
VE UNPRESERVED										
INORGANIC CHEMICAL METALS										
NORGANIC CHEMICAL METALS	C									
CYANIDE										
NITROGEN FORMS										
TOTAL SULFIDE										
NITRATE / NITRITE										
TOTAL ORGANIC CARBON										
TOX										
CHEMICAL OXYGEN DEMAND										
PHENOLICS										
VOA VIAL TRAVEL BLANK										
VOA VIAL	A, B									
EPA 413.1, 413.2, 418.1										
ODOR										
TOLOGICAL										
TERIOLOGICAL										
VOA VIAL- 504										
EPA 503/608/8080										
EPA 515.1/8150										
EPA 525										
EPA 525 TRAVEL BLANK										
al EPA 547										
al EPA 531.1										
EPA 548										
EPA 549										
EPA 632										
EPA 8015M										
AMBER										
L JAR										
Z JAR										
L SLEEVE										
VIAL										
STIC BAG										
ROUS IRON										
TORE										
ART KIT										
ina Computer										



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323375-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-6-10/28/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/28/2013 19:40 <b>Sampling Date:</b> 10/28/2013 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-6-10/28/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323375-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-6-10/28/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/28/2013 19:40 <b>Sampling Date:</b> 10/28/2013 07:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-6-10/28/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323375-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-17-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/28/2013 19:40 <b>Sampling Date:</b> 10/28/2013 07:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-17-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323375-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-17-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/28/2013 19:40 <b>Sampling Date:</b> 10/28/2013 08:25 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-17-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323375-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-17-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/28/2013 19:40 <b>Sampling Date:</b> 10/28/2013 08:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-17-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323375-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-17-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/28/2013 19:40 <b>Sampling Date:</b> 10/28/2013 09:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-17-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323375-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-17-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/28/2013 19:40 <b>Sampling Date:</b> 10/28/2013 09:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-17-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323375-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-18-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/28/2013 19:40 <b>Sampling Date:</b> 10/28/2013 11:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-18-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323375-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-18-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/28/2013 19:40 <b>Sampling Date:</b> 10/28/2013 11:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-18-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323375-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-18-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/28/2013 19:40 <b>Sampling Date:</b> 10/28/2013 12:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-18-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323375-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-18-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/28/2013 19:40 <b>Sampling Date:</b> 10/28/2013 13:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-18-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-01	<b>Client Sample Name:</b> JPL-GW, TB-6-10/28/13, 10/28/2013 7:00:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-01	<b>Client Sample Name:</b> JPL-GW, TB-6-10/28/13, 10/28/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-01	<b>Client Sample Name:</b> JPL-GW, TB-6-10/28/13, 10/28/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	109	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 15:15	MGC	MS-V5	1	BWJ2329



Battelle MHTS  
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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323375-01	<b>Client Sample Name:</b> JPL-GW, TB-6-10/28/13, 10/28/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 15:15	MGC	MS-V5	1	BWJ2329



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-02	<b>Client Sample Name:</b> JPL-GW, EB-6-10/28/13, 10/28/2013 7:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-02	<b>Client Sample Name:</b> JPL-GW, EB-6-10/28/13, 10/28/2013 7:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-02	<b>Client Sample Name:</b> JPL-GW, EB-6-10/28/13, 10/28/2013 7:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 15:38	MGC	MS-V5	1	BWJ2329



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323375-02	<b>Client Sample Name:</b> JPL-GW, EB-6-10/28/13, 10/28/2013 7:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 15:38	MGC	MS-V5	1	BWJ2329





Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323375-02	<b>Client Sample Name:</b> JPL-GW, EB-6-10/28/13, 10/28/2013 7:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/08/13	11/09/13 00:16	TMS	IC6	1	BWK0684

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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323375-02	<b>Client Sample Name:</b> JPL-GW, EB-6-10/28/13, 10/28/2013 7:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/28/13	10/28/13 22:31	LS1	KONE-1	1	BWJ2253
2	EPA-200.8	11/01/13	11/01/13 20:23	SRM	PE-EL2	1	BWK0049

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-03	<b>Client Sample Name:</b> JPL-GW, MW-17-5, 10/28/2013 7:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>0.37</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.18</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.73</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-03	<b>Client Sample Name:</b> JPL-GW, MW-17-5, 10/28/2013 7:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.30</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>2.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-03	<b>Client Sample Name:</b> JPL-GW, MW-17-5, 10/28/2013 7:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 16:01	MGC	MS-V5	1	BWJ2329



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323375-03	<b>Client Sample Name:</b> JPL-GW, MW-17-5, 10/28/2013 7:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 16:01	MGC	MS-V5	1	BWJ2329



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323375-03	<b>Client Sample Name:</b> JPL-GW, MW-17-5, 10/28/2013 7:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	9.9	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/08/13	11/09/13 01:39	LD1	IC6	1	BWK0684

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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323375-03	<b>Client Sample Name:</b> JPL-GW, MW-17-5, 10/28/2013 7:45:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/28/13	10/28/13 22:31	LS1	KONE-1	1	BWJ2253
2	EPA-200.8	11/01/13	11/01/13 20:33	SRM	PE-EL2	1	BWK0049

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Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-04	<b>Client Sample Name:</b> JPL-GW, MW-17-4, 10/28/2013 8:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>0.61</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.18</b>	<b>EPA-524.2</b>	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.55</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-04	<b>Client Sample Name:</b> JPL-GW, MW-17-4, 10/28/2013 8:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.34</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>2.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-04	<b>Client Sample Name:</b> JPL-GW, MW-17-4, 10/28/2013 8:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 16:24	MGC	MS-V5	1	BWJ2329

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323375-04	<b>Client Sample Name:</b> JPL-GW, MW-17-4, 10/28/2013 8:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 16:24	MGC	MS-V5	1	BWJ2329



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323375-04	<b>Client Sample Name:</b> JPL-GW, MW-17-4, 10/28/2013 8:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	15	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/08/13	11/09/13 01:53	LD1	IC6	1	BWK0684



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323375-04	<b>Client Sample Name:</b> JPL-GW, MW-17-4, 10/28/2013 8:25:00AM, Blaine Tech							
<b>Constituent</b>	<b>Result</b>	<b>Units</b>	<b>PQL</b>	<b>MDL</b>	<b>Method</b>	<b>MB Bias</b>	<b>Lab Quals</b>	<b>Run #</b>
Hexavalent Chromium	0.0017	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.0	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/28/13	10/28/13 22:31	LS1	KONE-1	1	BWJ2253
2	EPA-200.8	11/01/13	11/01/13 20:36	SRM	PE-EL2	1	BWK0049

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Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-05	<b>Client Sample Name:</b> JPL-GW, MW-17-3, 10/28/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.15</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-05	<b>Client Sample Name:</b> JPL-GW, MW-17-3, 10/28/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.13</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-05	<b>Client Sample Name:</b> JPL-GW, MW-17-3, 10/28/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 16:46	MGC	MS-V5	1	BWJ2329



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323375-05	<b>Client Sample Name:</b> JPL-GW, MW-17-3, 10/28/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 16:46	MGC	MS-V5	1	BWJ2329



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323375-05	<b>Client Sample Name:</b> JPL-GW, MW-17-3, 10/28/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	7.1	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/08/13	11/09/13 02:07	LD1	IC6	1	BWK0684

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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323375-05	<b>Client Sample Name:</b> JPL-GW, MW-17-3, 10/28/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/28/13	10/28/13 22:31	LS1	KONE-1	1	BWJ2253
2	EPA-200.8	11/01/13	11/01/13 20:39	SRM	PE-EL2	1	BWK0049

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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-06	<b>Client Sample Name:</b> JPL-GW, MW-17-2, 10/28/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-06	<b>Client Sample Name:</b> JPL-GW, MW-17-2, 10/28/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-06	<b>Client Sample Name:</b> JPL-GW, MW-17-2, 10/28/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 17:09	MGC	MS-V5	1	BWJ2329



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323375-06	<b>Client Sample Name:</b> JPL-GW, MW-17-2, 10/28/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 17:09	MGC	MS-V5	1	BWJ2329

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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323375-06	<b>Client Sample Name:</b> JPL-GW, MW-17-2, 10/28/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/08/13	11/09/13 02:21	LD1	IC6	1	BWK0684



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323375-06	<b>Client Sample Name:</b> JPL-GW, MW-17-2, 10/28/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/28/13	10/28/13 22:36	LS1	KONE-1	1	BWJ2253
2	EPA-200.8	11/01/13	11/01/13 20:42	SRM	PE-EL2	1	BWK0049

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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-07	<b>Client Sample Name:</b> JPL-GW, MW-17-1, 10/28/2013 9:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 1323375-07      **Client Sample Name:** JPL-GW, MW-17-1, 10/28/2013 9:50:00AM, Blaine Tech

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-07	<b>Client Sample Name:</b> JPL-GW, MW-17-1, 10/28/2013 9:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 19:27	MGC	MS-V5	1	BWJ2329



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323375-07	<b>Client Sample Name:</b> JPL-GW, MW-17-1, 10/28/2013 9:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 19:27	MGC	MS-V5	1	BWJ2329



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323375-07	<b>Client Sample Name:</b> JPL-GW, MW-17-1, 10/28/2013 9:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/08/13	11/10/13 11:12	LD1	IC6	1	BWK0684



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323375-07	<b>Client Sample Name:</b> JPL-GW, MW-17-1, 10/28/2013 9:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/28/13	10/28/13 22:37	LS1	KONE-1	1	BWJ2253
2	EPA-200.8	11/01/13	11/01/13 20:45	SRM	PE-EL2	1	BWK0049

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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-08	<b>Client Sample Name:</b> JPL-GW, MW-18-5, 10/28/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-08	<b>Client Sample Name:</b> JPL-GW, MW-18-5, 10/28/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.080</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.068</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-08	<b>Client Sample Name:</b> JPL-GW, MW-18-5, 10/28/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	108	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 19:50	MGC	MS-V5	1	BWJ2329



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Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323375-08	<b>Client Sample Name:</b> JPL-GW, MW-18-5, 10/28/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 19:50	MGC	MS-V5	1	BWJ2329



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323375-08	<b>Client Sample Name:</b> JPL-GW, MW-18-5, 10/28/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/08/13	11/09/13 02:48	LD1	IC6	1	BWK0684



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323375-08	<b>Client Sample Name:</b> JPL-GW, MW-18-5, 10/28/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/28/13	10/28/13 22:37	LS1	KONE-1	1	BWJ2253
2	EPA-200.8	11/01/13	11/01/13 20:49	SRM	PE-EL2	1	BWK0049

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Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-09	<b>Client Sample Name:</b> JPL-GW, MW-18-4, 10/28/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>1.9</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.18</b>	<b>EPA-524.2</b>	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.68</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-09	<b>Client Sample Name:</b> JPL-GW, MW-18-4, 10/28/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.84</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.90</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-09	<b>Client Sample Name:</b> JPL-GW, MW-18-4, 10/28/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 20:12	MGC	MS-V5	1	BWJ2329



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323375-09	<b>Client Sample Name:</b> JPL-GW, MW-18-4, 10/28/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 20:12	MGC	MS-V5	1	BWJ2329

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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323375-09	<b>Client Sample Name:</b> JPL-GW, MW-18-4, 10/28/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	15	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/08/13	11/09/13 03:02	LD1	IC6	1	BWK0684

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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323375-09	<b>Client Sample Name:</b> JPL-GW, MW-18-4, 10/28/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00075	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	3.5	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/28/13	10/28/13 22:37	LS1	KONE-1	1	BWJ2253
2	EPA-200.8	11/01/13	11/01/13 20:52	SRM	PE-EL2	1	BWK0049

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Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-10	<b>Client Sample Name:</b> JPL-GW, MW-18-3, 10/28/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>16</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.18</b>	<b>EPA-524.2</b>	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>2.2</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-10	<b>Client Sample Name:</b> JPL-GW, MW-18-3, 10/28/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.28</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>1.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
<b>1,1,2-Trichloro-1,2,2-trifluoroethane</b>	<b>0.30</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.15</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-10	<b>Client Sample Name:</b> JPL-GW, MW-18-3, 10/28/2013 12:10:00PM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 10:19	MGC	MS-V5	1	BWJ2329



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323375-10	<b>Client Sample Name:</b> JPL-GW, MW-18-3, 10/28/2013 12:10:00PM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 10:19	MGC	MS-V5	1	BWJ2329





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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323375-10	<b>Client Sample Name:</b> JPL-GW, MW-18-3, 10/28/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	44	ug/L	20	4.0	EPA-314.0	ND	A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/08/13	11/10/13 11:40	LD1	IC6	5	BWK0684



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323375-10	<b>Client Sample Name:</b> JPL-GW, MW-18-3, 10/28/2013 12:10:00PM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00083	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.9	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/28/13	10/28/13 22:30	LS1	KONE-1	1	BWJ2253
2	EPA-200.8	11/01/13	11/01/13 20:04	SRM	PE-EL2	1	BWK0049

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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-11	<b>Client Sample Name:</b> JPL-GW, MW-18-2, 10/28/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-11	<b>Client Sample Name:</b> JPL-GW, MW-18-2, 10/28/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323375-11	<b>Client Sample Name:</b> JPL-GW, MW-18-2, 10/28/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 20:35	MGC	MS-V5	1	BWJ2329



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323375-11	<b>Client Sample Name:</b> JPL-GW, MW-18-2, 10/28/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 20:35	MGC	MS-V5	1	BWJ2329



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323375-11	<b>Client Sample Name:</b> JPL-GW, MW-18-2, 10/28/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/08/13	11/09/13 03:57	LD1	IC6	1	BWK0684



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323375-11	<b>Client Sample Name:</b> JPL-GW, MW-18-2, 10/28/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/28/13	10/28/13 22:48	LS1	KONE-1	1	BWJ2253
2	EPA-200.8	11/01/13	11/01/13 20:55	SRM	PE-EL2	1	BWK0049





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Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
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**QC Batch ID: BWJ2329**

Benzene	BWJ2329-BLK1	ND	ug/L	0.50	0.083	
Bromobenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.13	
Bromochloromethane	BWJ2329-BLK1	ND	ug/L	0.50	0.24	
Bromodichloromethane	BWJ2329-BLK1	ND	ug/L	0.50	0.14	
Bromoform	BWJ2329-BLK1	ND	ug/L	0.50	0.27	
Bromomethane	BWJ2329-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.11	
sec-Butylbenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.15	
tert-Butylbenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.13	
Carbon tetrachloride	BWJ2329-BLK1	ND	ug/L	0.50	0.18	
Chlorobenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.093	
Chloroethane	BWJ2329-BLK1	ND	ug/L	0.50	0.14	
Chloroform	BWJ2329-BLK1	ND	ug/L	0.50	0.12	
Chloromethane	BWJ2329-BLK1	ND	ug/L	0.50	0.14	
2-Chlorotoluene	BWJ2329-BLK1	ND	ug/L	0.50	0.20	
4-Chlorotoluene	BWJ2329-BLK1	ND	ug/L	0.50	0.15	
Dibromochloromethane	BWJ2329-BLK1	ND	ug/L	0.50	0.13	
1,2-Dibromo-3-chloropropane	BWJ2329-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane	BWJ2329-BLK1	ND	ug/L	0.50	0.16	
Dibromomethane	BWJ2329-BLK1	ND	ug/L	0.50	0.24	
1,2-Dichlorobenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.072	
1,3-Dichlorobenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.15	
1,4-Dichlorobenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.062	
Dichlorodifluoromethane	BWJ2329-BLK1	ND	ug/L	0.50	0.099	
1,1-Dichloroethane	BWJ2329-BLK1	ND	ug/L	0.50	0.11	
1,2-Dichloroethane	BWJ2329-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	BWJ2329-BLK1	ND	ug/L	0.50	0.18	
cis-1,2-Dichloroethene	BWJ2329-BLK1	ND	ug/L	0.50	0.085	
trans-1,2-Dichloroethene	BWJ2329-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloropropane	BWJ2329-BLK1	ND	ug/L	0.50	0.13	
1,3-Dichloropropane	BWJ2329-BLK1	ND	ug/L	0.50	0.086	
2,2-Dichloropropane	BWJ2329-BLK1	ND	ug/L	0.50	0.13	
1,1-Dichloropropene	BWJ2329-BLK1	ND	ug/L	0.50	0.085	
cis-1,3-Dichloropropene	BWJ2329-BLK1	ND	ug/L	0.50	0.14	

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Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2329</b>						
trans-1,3-Dichloropropene	BWJ2329-BLK1	ND	ug/L	0.50	0.079	
Ethylbenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.098	
Hexachlorobutadiene	BWJ2329-BLK1	ND	ug/L	0.50	0.17	
Isopropylbenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	BWJ2329-BLK1	ND	ug/L	0.50	0.12	
Methylene chloride	BWJ2329-BLK1	ND	ug/L	0.50	0.48	
Methyl t-butyl ether	BWJ2329-BLK1	ND	ug/L	0.50	0.11	
Naphthalene	BWJ2329-BLK1	ND	ug/L	0.50	0.36	
n-Propylbenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.11	
Styrene	BWJ2329-BLK1	ND	ug/L	0.50	0.068	
1,1,1,2-Tetrachloroethane	BWJ2329-BLK1	ND	ug/L	0.50	0.18	
1,1,2,2-Tetrachloroethane	BWJ2329-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	BWJ2329-BLK1	ND	ug/L	0.50	0.13	
Toluene	BWJ2329-BLK1	ND	ug/L	0.50	0.093	
1,2,3-Trichlorobenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.16	
1,2,4-Trichlorobenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.19	
1,1,1-Trichloroethane	BWJ2329-BLK1	ND	ug/L	0.50	0.11	
1,1,2-Trichloroethane	BWJ2329-BLK1	ND	ug/L	0.50	0.16	
Trichloroethene	BWJ2329-BLK1	ND	ug/L	0.50	0.085	
Trichlorofluoromethane	BWJ2329-BLK1	ND	ug/L	0.50	0.13	
1,2,3-Trichloropropane	BWJ2329-BLK1	ND	ug/L	1.0	0.24	
1,1,2-Trichloro-1,2,2-trifluoroethane	BWJ2329-BLK1	ND	ug/L	0.50	0.15	
1,2,4-Trimethylbenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.12	
1,3,5-Trimethylbenzene	BWJ2329-BLK1	ND	ug/L	0.50	0.12	
Vinyl chloride	BWJ2329-BLK1	ND	ug/L	0.50	0.12	
Acetone	BWJ2329-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BWJ2329-BLK1	ND	ug/L	5.0	1.2	
Allyl chloride	BWJ2329-BLK1	ND	ug/L	5.0	0.80	
t-Amyl Methyl ether	BWJ2329-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BWJ2329-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BWJ2329-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BWJ2329-BLK1	ND	ug/L	5.0	1.4	
Diethyl ether	BWJ2329-BLK1	ND	ug/L	2.0	0.21	
Ethyl methacrylate	BWJ2329-BLK1	ND	ug/L	4.0	0.97	

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**Reported:** 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2329</b>						
Ethyl t-butyl ether	BWJ2329-BLK1	ND	ug/L	0.50	0.18	
Hexachloroethane	BWJ2329-BLK1	ND	ug/L	0.50	0.16	
2-Hexanone	BWJ2329-BLK1	ND	ug/L	10	3.4	
Methacrylonitrile	BWJ2329-BLK1	ND	ug/L	10	1.7	
Methyl ethyl ketone	BWJ2329-BLK1	ND	ug/L	10	2.5	
Methyl iodide	BWJ2329-BLK1	ND	ug/L	2.0	0.47	
Methyl isobutyl ketone	BWJ2329-BLK1	ND	ug/L	10	2.1	
Methyl methacrylate	BWJ2329-BLK1	ND	ug/L	5.0	1.5	
Pentachloroethane	BWJ2329-BLK1	ND	ug/L	2.0	0.43	
Propionitrile	BWJ2329-BLK1	ND	ug/L	20	4.2	
Tetrahydrofuran	BWJ2329-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	BWJ2329-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BWJ2329-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	BWJ2329-BLK1	103	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWJ2329-BLK1	95.4	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWJ2329-BLK1	98.9	%	80 - 120 (LCL - UCL)		



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## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2329</b>										
Benzene	BWJ2329-BS1	LCS	26.130	25.000	ug/L	105		70 - 130		
Bromodichloromethane	BWJ2329-BS1	LCS	25.570	25.000	ug/L	102		70 - 130		
Chlorobenzene	BWJ2329-BS1	LCS	24.450	25.000	ug/L	97.8		70 - 130		
Chloroethane	BWJ2329-BS1	LCS	26.480	25.000	ug/L	106		70 - 130		
1,4-Dichlorobenzene	BWJ2329-BS1	LCS	24.420	25.000	ug/L	97.7		70 - 130		
1,1-Dichloroethane	BWJ2329-BS1	LCS	26.120	25.000	ug/L	104		70 - 130		
1,1-Dichloroethene	BWJ2329-BS1	LCS	26.660	25.000	ug/L	107		70 - 130		
Toluene	BWJ2329-BS1	LCS	25.590	25.000	ug/L	102		70 - 130		
Trichloroethene	BWJ2329-BS1	LCS	25.230	25.000	ug/L	101		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BWJ2329-BS1	LCS	10.240	10.000	ug/L	102		75 - 125		
Toluene-d8 (Surrogate)	BWJ2329-BS1	LCS	9.8500	10.000	ug/L	98.5		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWJ2329-BS1	LCS	10.100	10.000	ug/L	101		80 - 120		



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Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2329</b>		Used client sample: Y - Description: MW-18-3, 10/28/2013 12:10								
Benzene	MS	1323375-10	ND	26.070	25.000	ug/L		104		70 - 130
	MSD	1323375-10	ND	26.550	25.000	ug/L	1.8	106	20	70 - 130
Bromodichloromethane	MS	1323375-10	ND	26.620	25.000	ug/L		106		70 - 130
	MSD	1323375-10	ND	26.660	25.000	ug/L	0.2	107	20	70 - 130
Chlorobenzene	MS	1323375-10	ND	24.330	25.000	ug/L		97.3		70 - 130
	MSD	1323375-10	ND	25.630	25.000	ug/L	5.2	103	20	70 - 130
Chloroethane	MS	1323375-10	ND	26.210	25.000	ug/L		105		70 - 130
	MSD	1323375-10	ND	26.200	25.000	ug/L	0.0	105	20	70 - 130
1,4-Dichlorobenzene	MS	1323375-10	ND	25.370	25.000	ug/L		101		70 - 130
	MSD	1323375-10	ND	26.010	25.000	ug/L	2.5	104	20	70 - 130
1,1-Dichloroethane	MS	1323375-10	ND	26.210	25.000	ug/L		105		70 - 130
	MSD	1323375-10	ND	26.840	25.000	ug/L	2.4	107	20	70 - 130
1,1-Dichloroethene	MS	1323375-10	ND	26.420	25.000	ug/L		106		70 - 130
	MSD	1323375-10	ND	27.140	25.000	ug/L	2.7	109	20	70 - 130
Toluene	MS	1323375-10	ND	25.940	25.000	ug/L		104		70 - 130
	MSD	1323375-10	ND	25.790	25.000	ug/L	0.6	103	20	70 - 130
Trichloroethene	MS	1323375-10	1.5600	27.020	25.000	ug/L		102		70 - 130
	MSD	1323375-10	1.5600	26.160	25.000	ug/L	3.2	98.4	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1323375-10	ND	10.250	10.000	ug/L		102		75 - 125
	MSD	1323375-10	ND	9.9100	10.000	ug/L	3.4	99.1		75 - 125
Toluene-d8 (Surrogate)	MS	1323375-10	ND	10.240	10.000	ug/L		102		80 - 120
	MSD	1323375-10	ND	9.7100	10.000	ug/L	5.3	97.1		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1323375-10	ND	10.140	10.000	ug/L		101		80 - 120
	MSD	1323375-10	ND	10.320	10.000	ug/L	1.8	103		80 - 120

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Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2329</b>						
Chloroacetonitrile	BWJ2329-BLK1	0	ug/L			
1-Chlorobutane	BWJ2329-BLK1	0	ug/L			
1,1-Dichloropropanone	BWJ2329-BLK1	0	ug/L			
Methyl acrylate	BWJ2329-BLK1	0	ug/L			
Nitrobenzene	BWJ2329-BLK1	0	ug/L			
2-Nitropropane	BWJ2329-BLK1	0	ug/L			



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505 King Ave.  
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**Reported:** 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWK0684</b>						
Perchlorate	BWK0684-BLK1	ND	ug/L	4.0	0.81	



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**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWK0684</b>										
Perchlorate	BWK0684-BS1	LCS	10.878	10.000	ug/L	109		85 - 115		





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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals	
								Percent Recovery	RPD		Percent Recovery
<b>QC Batch ID: BWK0684</b>		Used client sample: Y - Description: EB-6-10/28/13, 10/28/2013 07:20									
Perchlorate	DUP	1323375-02	ND	ND		ug/L				15	
	MS	1323375-02	ND	11.594	10.101	ug/L		115		80 - 120	
	MSD	1323375-02	ND	11.774	10.101	ug/L	1.5	117	15	80 - 120	



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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

## Metals Analysis

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2253</b>						
Hexavalent Chromium	BWJ2253-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWK0049</b>						
Total Recoverable Chromium	BWK0049-BLK1	ND	ug/L	3.0	0.50	



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**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2253</b>										
Hexavalent Chromium	BWJ2253-BS1	LCS	0.049692	0.050000	mg/L	99.4		85	115	
<b>QC Batch ID: BWK0049</b>										
Total Recoverable Chromium	BWK0049-BS1	LCS	40.822	40.000	ug/L	102		85	115	



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/12/2013 14:44  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2253</b>		Used client sample: Y - Description: MW-18-3, 10/28/2013 12:10								
Hexavalent Chromium	DUP	1323375-10	0.00082900	0.0011540		mg/L	32.8		10	J,A02
	MS	1323375-10	0.00082900	0.052591	0.052632	mg/L		98.3	85 - 115	
	MSD	1323375-10	0.00082900	0.052338	0.052632	mg/L	0.5	97.9	10 85 - 115	
<b>QC Batch ID: BWK0049</b>		Used client sample: Y - Description: MW-18-3, 10/28/2013 12:10								
Total Recoverable Chromium	DUP	1323375-10	2.9480	1.7740		ug/L	49.7		20	J,A02
	MS	1323375-10	2.9480	39.174	40.000	ug/L		90.6	70 - 130	
	MSD	1323375-10	2.9480	40.043	40.000	ug/L	2.2	92.7	20 70 - 130	



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/12/2013 14:44  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A01 PQL's and MDL's are raised due to sample dilution.
- A02 The difference between duplicate readings is less than the PQL.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.
- V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.



Date of Report: 11/13/2013

David Conner

Battelle MHTS

505 King Ave.

Columbus, OH 43201

Project: JPL- GW Monitoring Wells

BC Work Order: 1323495

Invoice ID: B159788

Enclosed are the results of analyses for samples received by the laboratory on 10/29/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



# Table of Contents

## Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	10

## Sample Results

<b>1323495-01 - TB-7-10/29/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	14
Volatile Organic Analysis (EPA Method 524.2) TICs.....	17
<b>1323495-02 - EB-7-10/29/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	18
Volatile Organic Analysis (EPA Method 524.2) TICs.....	21
Water Analysis (General Chemistry).....	22
Metals Analysis.....	23
<b>1323495-03 - MW-11-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	24
Volatile Organic Analysis (EPA Method 524.2) TICs.....	27
Water Analysis (General Chemistry).....	28
Metals Analysis.....	29
<b>1323495-04 - MW-11-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	30
Volatile Organic Analysis (EPA Method 524.2) TICs.....	33
Water Analysis (General Chemistry).....	34
Metals Analysis.....	35
<b>1323495-05 - MW-11-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	36
Volatile Organic Analysis (EPA Method 524.2) TICs.....	39
Water Analysis (General Chemistry).....	40
Metals Analysis.....	41
<b>1323495-06 - MW-11-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	42
Volatile Organic Analysis (EPA Method 524.2) TICs.....	45
Water Analysis (General Chemistry).....	46
Metals Analysis.....	47
<b>1323495-07 - MW-11-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	48
Volatile Organic Analysis (EPA Method 524.2) TICs.....	51
Water Analysis (General Chemistry).....	52
Metals Analysis.....	53
<b>1323495-08 - MW-3-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	54
Volatile Organic Analysis (EPA Method 524.2) TICs.....	57
Water Analysis (General Chemistry).....	58
Metals Analysis.....	59
<b>1323495-09 - MW-3-4</b>	
Volatile Organic Analysis (EPA Method 524.2).....	60
Volatile Organic Analysis (EPA Method 524.2) TICs.....	63
Water Analysis (General Chemistry).....	64
Metals Analysis.....	65
<b>1323495-10 - MW-3-3</b>	
Volatile Organic Analysis (EPA Method 524.2).....	66
Volatile Organic Analysis (EPA Method 524.2) TICs.....	69
Water Analysis (General Chemistry).....	70
Metals Analysis.....	71
<b>1323495-11 - MW-3-2</b>	
Volatile Organic Analysis (EPA Method 524.2).....	72



## Table of Contents

Volatile Organic Analysis (EPA Method 524.2) TICs.....	75
Water Analysis (General Chemistry).....	76
Metals Analysis.....	77
<b>1323495-12 - MW-3-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	78
Volatile Organic Analysis (EPA Method 524.2) TICs.....	81
Water Analysis (General Chemistry).....	82
Metals Analysis.....	83
<b>Quality Control Reports</b>	
<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	84
Laboratory Control Sample.....	87
Precision and Accuracy.....	88
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	89
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	90
Laboratory Control Sample.....	91
Precision and Accuracy.....	92
<b>Metals Analysis</b>	
Method Blank Analysis.....	93
Laboratory Control Sample.....	94
Precision and Accuracy.....	95
<b>Notes</b>	
Notes and Definitions.....	96





Chain of Custody Form

Page 1 of 2



# 13-23495

Report To: Battelle MHTS  
 Client: David Conner  
 Attn: David Conner  
 Street Address: 505 King Ave.  
 City: Columbus State: OH Zip: 43201  
 Phone: (614) 424-5489 Fax: (614) 458-5489  
 Email Address: connerd@battelle.org  
 Submission #: \_\_\_\_\_

Project Description: JPL-GW Monitoring  
 Project Code: 4Q13  
 Sampler(s): Blaine Tech

Analysis Requested:  
 Total Cr 200.8 (ug/L) \_\_\_\_\_  
 Perchlorate by 314.0 \_\_\_\_\_  
 Hexavalent Cr (7196) (mg/L) \_\_\_\_\_  
 Chloride, Nitrate, Sulfate \_\_\_\_\_  
 Orthophosphate 365.1 \_\_\_\_\_  
 Nitrite 353.2 \_\_\_\_\_

Billing:  
 Client: SAME  
 Attn: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Are there any tests with holding times? less than or equal to 48 hours?  
 Yes  No  
 \*Standard Turnaround = 10

Notes:  
 SHEET HOLDING TIME  
 NO<sub>2</sub> NO<sub>3</sub> OP SS  
 DO Cl<sub>2</sub> BOD MBAS COT  
 CHK BY DISTRIBUTION  
 KID MA MT DMC  
 SUP. OUT

Sample #	Sample Description	Date	Time	Matrix*
-1	TB-7-10/24/13	10-24-13	0700	AQ
-2	FB-7-10/24/13		0705	
-3	MW-11-5		0735	
-4	MW-11-4		0815	
-5	MW-11-3		0850	
-6	MW-11-2		0920	
-7	MW-11-1		0950	
-8	MW-3-5		1100	
-9	MW-3-4		1140	
-10	MW-3-3		1210	
-11	MW-3-2		1235	↓

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other  
 Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)  
 Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

Cost Center:  
 1. Relinquished By: \_\_\_\_\_ Date: 10-29-13 Time: 1500  
 2. Relinquished By: NICOLE Date: 10-29-13 Time: 1530  
 3. Relinquished By: \_\_\_\_\_ Date: 10-29-13 Time: 1930

Global ID:  
 1. Received By: \_\_\_\_\_ Date: 10-29-13 Time: 1500  
 2. Received By: NICOLE Date: 10-29-13 Time: 1530  
 3. Received By: \_\_\_\_\_ Date: 10-29-13 Time: 1930

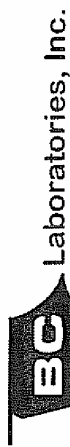
Comments:  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR  
 CC (MS/MSD)  
 90% Level III and 10% Level IV data validation  
 required: Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE  
 CALIBRATION SUMMARIES (Inform QC)

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-1918 www.bclabs.com



Chain of Custody Form

Page 2 of 2



BC Laboratories, Inc.

\* Required Fields # 13-23495

Report To: Battelle MHTS  
 Client: Battelle MHTS  
 Attn: David Conner  
 Street Address: 505 King Ave.  
 City: Columbus State: OH Zip: 43201  
 Phone: 614 424 5489 Fax: 614 458 5489  
 Email Address: connerd@battelle.org

Project Description: JPL-GW Monitoring  
 Project Code: 4Q13  
 Sampler(s): Blaine Tech

Analysis Requested:  
 VOCs EPA 524.2  
 Total Cr 200.8 (ug/L)  
 Perchlorate by 314.0  
 Hexavalent Cr (7196) (mg/L)  
 Chloride, Nitrate, Sulfate  
 Orthophosphate 365.1  
 Nitrite 353.2

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other  
 Turnaround # of working days: 24 Hr Rush 48 Hr Rush 3-5 Day Rush Normal (10 - Days)  
 Lab TAT Approval: \* Additional Charges May Apply

Matrix: MW-3-1  
 Date: 10-29-13  
 Time: 1500  
 Matrix: AQ

Notes:  
 Yes  NO  
 Are there any tests with holding times? less than or equal to 48 hours?  
 \*Standard Turnaround = 10

Billing:  
 Client: SAME  
 Attn:  
 Address:  
 City:  
 State:  
 Zip:

Global ID:  
 1. Received By: NICOLO Date: 10/29/13 Time: 1500  
 2. Received By: JEN Date: 10/29/13 Time: 1530  
 3. Received By: JEN Date: 10/29/13 Time: 1730

Cost Center:  
 1. Relinquished By: NICOLO Date: 10-29-13 Time: 1500  
 2. Relinquished By: JEN Date: 10/29/13 Time: 1530  
 3. Relinquished By: JEN Date: 10/29/13 Time: 1730

Comments:  
 PLEASE NOTE WHICH SAMPLES TO USE FOR OC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (inform OC)

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327 - 4911 Fax: (661) 327 - 1918 www.bclabs.com

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Chain of Custody and Cooler Receipt Form for 1323495 Page 3 of 6

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No: 15 07/01/13 Page 1 of 4  
 Submission #: 13-23495

**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  
 Temperature: (A) 1.2 °C (C) 1.3 °C

Date/Time: 12/15/13 1930  
 Analyst Init: JH

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
T GENERAL MINERAL/GENERAL		B	B	B	B	B	B	B	B	B
T PE UNPRESERVED										
T INORGANIC CHEMICAL METALS										
T INORGANIC CHEMICAL METALS		C	C	C	C	C	C	C	C	C
T CYANIDE										
T NITROGEN FORMS										
T TOTAL SULFIDE										
L NITRATE / NITRITE										
T TOTAL ORGANIC CARBON										
T TOX										
CHEMICAL OXYGEN DEMAND										
T PHENOLICS										
nl VOA VIAL TRAVEL BLANK										
nl VOA VIAL										
EPA 413.1, 413.2, 418.1										
ODOR										
BIOLOGICAL										
CTERIOLOGICAL										
nl VOA VIAL- 504										
EPA 508/608/8080										
EPA 515.1/8150										
EPA 525										
EPA 525 TRAVEL BLANK										
nl EPA 547										
nl EPA 531.1										
EPA 548										
EPA 549										
EPA 632										
EPA 8015M										
AMBER										
JAR										
Z. JAR										
SLEEVE										
VIAL										
STIC BAG										
ROUS IRON										
ORE										
RT KIT										
nl Container										

Prepared by: SAC Date: 12-15-13



Chain of Custody and Cooler Receipt Form for 1323495 Page 4 of 6

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 2 Of 4

Submission #: 13-23495

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. 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: 10/29/13 1930, Temperature: (A) 1.2 °C, (C) 1.3 °C, Analyst Init: [Signature]

Table with columns: SAMPLE CONTAINERS, SAMPLE NUMBERS (1-10). Rows include: QT GENERAL MINERAL/ GENERAL, PT PE UNPRESERVED, QT INORGANIC CHEMICAL METALS, PT INORGANIC CHEMICAL METALS, PT CYANIDE, PT NITROGEN FORMS, PT TOTAL SULFIDE, 2oz. NITRATE / NITRITE, PT TOTAL ORGANIC CARBON, PT TOX, PT CHEMICAL OXYGEN DEMAND, HA PHENOLICS, 10ml VOA VIAL TRAVEL BLANK, 10ml VOA VIAL, QT EPA 413.1, 413.2, 418.1, PT ODOR, RADIOLOGICAL, BACTERIOLOGICAL, 10 ml VOA VIAL- 504, QT EPA 508/608/8080, QT EPA 515.1/8150, QT EPA 525, QT EPA 525 TRAVEL BLANK, 100ml EPA 547, 100ml EPA 531.1, QT EPA 548, QT EPA 549, QT EPA 632, QT EPA 8015M, QT AMBER, OZ. JAR, 2 OZ. JAR, OIL SLEEVE, CB VIAL, PLASTIC BAG, FERROUS IRON, NCORE, MART KIT, Gamma Canister.

Sample Numbering Completed By: SAS Date/Time: 10-29-13 2116

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Chain of Custody and Cooler Receipt Form for 1323495 Page 5 of 6

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 3 Of 4

Submission #: 13-23495

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. 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: 0.97, Container: VOA, Thermometer ID: 207, Date/Time: 10/15/13 1930, Temperature: (A) 2.7, (C) 2.6, Analyst Init: [Signature]

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like GENERAL MINERAL, PE UNPRESERVED, INORGANIC CHEMICAL METALS, etc. Handwritten entries include 'A 2' and 'A 3' in the sample number columns.



Chain of Custody and Cooler Receipt Form for 1323495 Page 6 of 6

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 15 07/01/13 Page 4 of 4

Submission #: 13-23495

<b>SHIPPING INFORMATION</b> Federal Express <input type="checkbox"/> UPS <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/>
--	--	---	--

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

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

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

COC Received  YES  NO

Emissivity: 0.97 Container: VOA Thermometer ID: 207  
 Temperature: (A) 2.7 °C (IC) 2.6 °C

Date/Time 10/29/13 1930  
 Analyst Init 11

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	11	12	3	4	5	6	7	8	9	10
GENERAL MINERAL/ GENERAL										
PE UNPRESERVED										
INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS										
CYANIDE										
NITROGEN FORMS										
TOTAL SULFIDE										
NITRATE / NITRITE										
TOTAL ORGANIC CARBON										
TOX										
CHEMICAL OXYGEN DEMAND										
PHENOLICS										
VOA VIAL TRAVEL BLANK										
VOA VIAL	A.3	A.3								
EPA 413.1, 413.2, 418.1										
ODOR										
BIOLOGICAL										
STERIOLOGICAL										
VOA VIAL- 504										
EPA 503/608/8080										
EPA 515.1/8150										
EPA 525										
EPA 525 TRAVEL BLANK										
EPA 547										
EPA 531.1										
EPA 548										
EPA 549										
EPA 652										
EPA 8015M										
AMBER										
JAR										
Z. JAR										
SLEEVE										
VIAL										
STIC BAG										
ROUS IRON										
ORE										
RT KIT										
ION Container										
Remarks:										

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323495-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-7-10/29/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 07:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Trip Blank Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-7-10/29/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323495-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-7-10/29/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 07:05 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-7-10/29/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323495-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-11-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 07:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-11-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323495-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-11-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 08:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-11-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323495-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-11-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 08:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-11-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323495-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-11-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 09:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-11-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323495-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-11-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 09:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-11-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323495-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 11:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323495-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-4 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 11:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-4 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1323495-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-3 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 12:10 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323495-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-2 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 12:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-2 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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<b>1323495-12</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/29/2013 19:30 <b>Sampling Date:</b> 10/29/2013 13:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-01	<b>Client Sample Name:</b> JPL-GW, TB-7-10/29/13, 10/29/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-01	<b>Client Sample Name:</b> JPL-GW, TB-7-10/29/13, 10/29/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-01	<b>Client Sample Name:</b> JPL-GW, TB-7-10/29/13, 10/29/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 00:23	MGC	MS-V5	1	BWJ2330

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-01	<b>Client Sample Name:</b> JPL-GW, TB-7-10/29/13, 10/29/2013 7:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 00:23	MGC	MS-V5	1	BWJ2330



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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-02	<b>Client Sample Name:</b> JPL-GW, EB-7-10/29/13, 10/29/2013 7:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-02	<b>Client Sample Name:</b> JPL-GW, EB-7-10/29/13, 10/29/2013 7:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-02	<b>Client Sample Name:</b> JPL-GW, EB-7-10/29/13, 10/29/2013 7:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	107	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 00:45	MGC	MS-V5	1	BWJ2330

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-02	<b>Client Sample Name:</b> JPL-GW, EB-7-10/29/13, 10/29/2013 7:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 00:45	MGC	MS-V5	1	BWJ2330



Battelle MHTS  
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323495-02	<b>Client Sample Name:</b> JPL-GW, EB-7-10/29/13, 10/29/2013 7:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/10/13	11/10/13 13:49	LD1	IC6	1	BWK0783



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323495-02	<b>Client Sample Name:</b> JPL-GW, EB-7-10/29/13, 10/29/2013 7:05:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/29/13	10/29/13 21:35	LS1	KONE-1	1	BWJ2333
2	EPA-200.8	11/04/13	11/05/13 00:36	JSS	PE-EL2	1	BWK0175

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**Reported:** 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-03	<b>Client Sample Name:</b> JPL-GW, MW-11-5, 10/29/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-03	<b>Client Sample Name:</b> JPL-GW, MW-11-5, 10/29/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.17</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.068</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-03	<b>Client Sample Name:</b> JPL-GW, MW-11-5, 10/29/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	108	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 22:06	MGC	MS-V5	1	BWJ2330



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-03	<b>Client Sample Name:</b> JPL-GW, MW-11-5, 10/29/2013 7:35:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/30/13 22:06	MGC	MS-V5	1	BWJ2330





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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323495-03	<b>Client Sample Name:</b> JPL-GW, MW-11-5, 10/29/2013 7:35:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/10/13	11/10/13 14:03	LD1	IC6	1	BWK0783



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505 King Ave.  
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323495-03	<b>Client Sample Name:</b> JPL-GW, MW-11-5, 10/29/2013 7:35:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/29/13	10/29/13 21:35	LS1	KONE-1	1	BWJ2333
2	EPA-200.8	11/04/13	11/05/13 01:02	JSS	PE-EL2	1	BWK0175

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-04	<b>Client Sample Name:</b> JPL-GW, MW-11-4, 10/29/2013 8:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-04	<b>Client Sample Name:</b> JPL-GW, MW-11-4, 10/29/2013 8:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.15</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.068</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-04	<b>Client Sample Name:</b> JPL-GW, MW-11-4, 10/29/2013 8:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	107	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 01:08	MGC	MS-V5	1	BWJ2330



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-04	<b>Client Sample Name:</b> JPL-GW, MW-11-4, 10/29/2013 8:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 01:08	MGC	MS-V5	1	BWJ2330



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323495-04	<b>Client Sample Name:</b> JPL-GW, MW-11-4, 10/29/2013 8:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/10/13	11/10/13 14:17	LD1	IC6	1	BWK0783



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323495-04	<b>Client Sample Name:</b> JPL-GW, MW-11-4, 10/29/2013 8:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/29/13	10/29/13 21:35	LS1	KONE-1	1	BWJ2333
2	EPA-200.8	11/04/13	11/05/13 01:05	JSS	PE-EL2	1	BWK0175

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-05	<b>Client Sample Name:</b> JPL-GW, MW-11-3, 10/29/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-05	<b>Client Sample Name:</b> JPL-GW, MW-11-3, 10/29/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.080</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.068</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.090</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-05	<b>Client Sample Name:</b> JPL-GW, MW-11-3, 10/29/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	107	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 01:31	MGC	MS-V5	1	BWJ2330



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-05	<b>Client Sample Name:</b> JPL-GW, MW-11-3, 10/29/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 01:31	MGC	MS-V5	1	BWJ2330



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323495-05	<b>Client Sample Name:</b> JPL-GW, MW-11-3, 10/29/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/10/13	11/10/13 14:31	LD1	IC6	1	BWK0783

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323495-05	<b>Client Sample Name:</b> JPL-GW, MW-11-3, 10/29/2013 8:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/29/13	10/29/13 21:35	LS1	KONE-1	1	BWJ2333
2	EPA-200.8	11/04/13	11/05/13 01:08	JSS	PE-EL2	1	BWK0175



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-06	<b>Client Sample Name:</b> JPL-GW, MW-11-2, 10/29/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Reported: 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-06	<b>Client Sample Name:</b> JPL-GW, MW-11-2, 10/29/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-06	<b>Client Sample Name:</b> JPL-GW, MW-11-2, 10/29/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 01:54	MGC	MS-V5	1	BWJ2330



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505 King Ave.  
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-06	<b>Client Sample Name:</b> JPL-GW, MW-11-2, 10/29/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 01:54	MGC	MS-V5	1	BWJ2330



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323495-06	<b>Client Sample Name:</b> JPL-GW, MW-11-2, 10/29/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/10/13	11/10/13 14:44	LD1	IC6	1	BWK0783



Battelle MHTS  
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323495-06	<b>Client Sample Name:</b> JPL-GW, MW-11-2, 10/29/2013 9:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/29/13	10/29/13 22:20	LS1	KONE-1	1	BWJ2333
2	EPA-200.8	11/04/13	11/05/13 01:12	JSS	PE-EL2	1	BWK0175

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**Reported:** 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-07	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 10/29/2013 9:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Columbus, OH 43201

Reported: 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-07	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 10/29/2013 9:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.11</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.068</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-07	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 10/29/2013 9:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 02:16	MGC	MS-V5	1	BWJ2330



Battelle MHTS  
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-07	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 10/29/2013 9:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 02:16	MGC	MS-V5	1	BWJ2330





Battelle MHTS  
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323495-07	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 10/29/2013 9:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	13	mg/L	0.50	0.067	EPA-300.0	ND		1
Nitrate as N	0.22	mg/L	0.10	0.025	EPA-300.0	ND		1
Sulfate	33	mg/L	1.0	0.18	EPA-300.0	ND		1
Nitrite as N	ND	mg/L	0.050	0.012	EPA-353.2	ND		2
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		3
ortho-Phosphate as P	0.026	mg/L	0.020	0.0040	EPA-365.1	0.0051		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	10/30/13	10/30/13 23:35	LS1	IC2	1	BWJ2410
2	EPA-353.2	10/30/13	10/30/13 08:30	TDC	KONE-1	1	BWJ2331
3	EPA-314.0	11/10/13	11/10/13 14:58	LD1	IC6	1	BWK0783
4	EPA-365.1	10/30/13	10/30/13 08:22	TDC	KONE-1	1	BWJ2332



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323495-07	<b>Client Sample Name:</b> JPL-GW, MW-11-1, 10/29/2013 9:50:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/29/13	10/29/13 21:41	LS1	KONE-1	1	BWJ2333
2	EPA-200.8	11/04/13	11/05/13 01:15	JSS	PE-EL2	1	BWK0175



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Reported: 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-08	<b>Client Sample Name:</b> JPL-GW, MW-3-5, 10/29/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.14</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-08	<b>Client Sample Name:</b> JPL-GW, MW-3-5, 10/29/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-08	<b>Client Sample Name:</b> JPL-GW, MW-3-5, 10/29/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	95.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 02:39	MGC	MS-V5	1	BWJ2330



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505 King Ave.  
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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-08	<b>Client Sample Name:</b> JPL-GW, MW-3-5, 10/29/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 02:39	MGC	MS-V5	1	BWJ2330



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323495-08	<b>Client Sample Name:</b> JPL-GW, MW-3-5, 10/29/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/10/13	11/10/13 15:12	LD1	IC6	1	BWK0783



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323495-08	<b>Client Sample Name:</b> JPL-GW, MW-3-5, 10/29/2013 11:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.00072	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	7.3	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/29/13	10/29/13 21:41	LS1	KONE-1	1	BWJ2333
2	EPA-200.8	11/04/13	11/05/13 01:18	JSS	PE-EL2	1	BWK0175

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Reported: 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-09	<b>Client Sample Name:</b> JPL-GW, MW-3-4, 10/29/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.12</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-09	<b>Client Sample Name:</b> JPL-GW, MW-3-4, 10/29/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-09	<b>Client Sample Name:</b> JPL-GW, MW-3-4, 10/29/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 03:02	MGC	MS-V5	1	BWJ2330



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-09	<b>Client Sample Name:</b> JPL-GW, MW-3-4, 10/29/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 03:02	MGC	MS-V5	1	BWJ2330



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323495-09	<b>Client Sample Name:</b> JPL-GW, MW-3-4, 10/29/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.0	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/10/13	11/10/13 15:26	LD1	IC6	1	BWK0783

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323495-09	<b>Client Sample Name:</b> JPL-GW, MW-3-4, 10/29/2013 11:40:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>3.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/29/13	10/29/13 21:41	LS1	KONE-1	1	BWJ2333
2	EPA-200.8	11/04/13	11/05/13 01:21	JSS	PE-EL2	1	BWK0175



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-10	<b>Client Sample Name:</b> JPL-GW, MW-3-3, 10/29/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-10	<b>Client Sample Name:</b> JPL-GW, MW-3-3, 10/29/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-10	<b>Client Sample Name:</b> JPL-GW, MW-3-3, 10/29/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 03:25	MGC	MS-V5	1	BWJ2330

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-10	<b>Client Sample Name:</b> JPL-GW, MW-3-3, 10/29/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 03:25	MGC	MS-V5	1	BWJ2330

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323495-10	<b>Client Sample Name:</b> JPL-GW, MW-3-3, 10/29/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	0.91	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/10/13	11/10/13 16:07	LD1	IC6	1	BWK0783

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323495-10	<b>Client Sample Name:</b> JPL-GW, MW-3-3, 10/29/2013 12:10:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0017	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	1.8	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/29/13	10/29/13 21:41	LS1	KONE-1	1	BWJ2333
2	EPA-200.8	11/04/13	11/05/13 01:24	JSS	PE-EL2	1	BWK0175

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-11	<b>Client Sample Name:</b> JPL-GW, MW-3-2, 10/29/2013 12:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-11	<b>Client Sample Name:</b> JPL-GW, MW-3-2, 10/29/2013 12:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-11	<b>Client Sample Name:</b> JPL-GW, MW-3-2, 10/29/2013 12:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	95.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 03:48	MGC	MS-V5	1	BWJ2330



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-11	<b>Client Sample Name:</b> JPL-GW, MW-3-2, 10/29/2013 12:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 03:48	MGC	MS-V5	1	BWJ2330





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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323495-11	<b>Client Sample Name:</b> JPL-GW, MW-3-2, 10/29/2013 12:35:00PM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/10/13	11/10/13 16:21	LD1	IC6	1	BWK0783



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323495-11	<b>Client Sample Name:</b> JPL-GW, MW-3-2, 10/29/2013 12:35:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
<b>Total Recoverable Chromium</b>	<b>0.66</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/29/13	10/29/13 21:41	LS1	KONE-1	1	BWJ2333
2	EPA-200.8	11/04/13	11/05/13 01:27	JSS	PE-EL2	1	BWK0175



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-12	<b>Client Sample Name:</b> JPL-GW, MW-3-1, 10/29/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-12	<b>Client Sample Name:</b> JPL-GW, MW-3-1, 10/29/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323495-12	<b>Client Sample Name:</b> JPL-GW, MW-3-1, 10/29/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 04:10	MGC	MS-V5	1	BWJ2330



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**Reported:** 11/13/2013 8:02  
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**Project Number:** 4Q13  
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### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323495-12	<b>Client Sample Name:</b> JPL-GW, MW-3-1, 10/29/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/30/13	10/31/13 04:10	MGC	MS-V5	1	BWJ2330



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323495-12	<b>Client Sample Name:</b> JPL-GW, MW-3-1, 10/29/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/10/13	11/10/13 16:35	LD1	IC6	1	BWK0785



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**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323495-12	<b>Client Sample Name:</b> JPL-GW, MW-3-1, 10/29/2013 1:00:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/30/13	10/30/13 07:46	TDC	KONE-1	1	BWJ2334
2	EPA-200.8	11/04/13	11/05/13 02:09	JSS	PE-EL2	1	BWK0176





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Reported: 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2330</b>						
Benzene	BWJ2330-BLK1	ND	ug/L	0.50	0.083	
Bromobenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.13	
Bromochloromethane	BWJ2330-BLK1	ND	ug/L	0.50	0.24	
Bromodichloromethane	BWJ2330-BLK1	ND	ug/L	0.50	0.14	
Bromoform	BWJ2330-BLK1	ND	ug/L	0.50	0.27	
Bromomethane	BWJ2330-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.11	
sec-Butylbenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.15	
tert-Butylbenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.13	
Carbon tetrachloride	BWJ2330-BLK1	ND	ug/L	0.50	0.18	
Chlorobenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.093	
Chloroethane	BWJ2330-BLK1	ND	ug/L	0.50	0.14	
Chloroform	BWJ2330-BLK1	ND	ug/L	0.50	0.12	
Chloromethane	BWJ2330-BLK1	ND	ug/L	0.50	0.14	
2-Chlorotoluene	BWJ2330-BLK1	ND	ug/L	0.50	0.20	
4-Chlorotoluene	BWJ2330-BLK1	ND	ug/L	0.50	0.15	
Dibromochloromethane	BWJ2330-BLK1	ND	ug/L	0.50	0.13	
1,2-Dibromo-3-chloropropane	BWJ2330-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane	BWJ2330-BLK1	ND	ug/L	0.50	0.16	
Dibromomethane	BWJ2330-BLK1	ND	ug/L	0.50	0.24	
1,2-Dichlorobenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.072	
1,3-Dichlorobenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.15	
1,4-Dichlorobenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.062	
Dichlorodifluoromethane	BWJ2330-BLK1	ND	ug/L	0.50	0.099	
1,1-Dichloroethane	BWJ2330-BLK1	ND	ug/L	0.50	0.11	
1,2-Dichloroethane	BWJ2330-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	BWJ2330-BLK1	ND	ug/L	0.50	0.18	
cis-1,2-Dichloroethene	BWJ2330-BLK1	ND	ug/L	0.50	0.085	
trans-1,2-Dichloroethene	BWJ2330-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloropropane	BWJ2330-BLK1	ND	ug/L	0.50	0.13	
1,3-Dichloropropane	BWJ2330-BLK1	ND	ug/L	0.50	0.086	
2,2-Dichloropropane	BWJ2330-BLK1	ND	ug/L	0.50	0.13	
1,1-Dichloropropene	BWJ2330-BLK1	ND	ug/L	0.50	0.085	
cis-1,3-Dichloropropene	BWJ2330-BLK1	ND	ug/L	0.50	0.14	

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**Reported:** 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2330</b>						
trans-1,3-Dichloropropene	BWJ2330-BLK1	ND	ug/L	0.50	0.079	
Ethylbenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.098	
Hexachlorobutadiene	BWJ2330-BLK1	ND	ug/L	0.50	0.17	
Isopropylbenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	BWJ2330-BLK1	ND	ug/L	0.50	0.12	
Methylene chloride	BWJ2330-BLK1	ND	ug/L	0.50	0.48	
Methyl t-butyl ether	BWJ2330-BLK1	ND	ug/L	0.50	0.11	
Naphthalene	BWJ2330-BLK1	ND	ug/L	0.50	0.36	
n-Propylbenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.11	
Styrene	BWJ2330-BLK1	ND	ug/L	0.50	0.068	
1,1,1,2-Tetrachloroethane	BWJ2330-BLK1	ND	ug/L	0.50	0.18	
1,1,2,2-Tetrachloroethane	BWJ2330-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	BWJ2330-BLK1	ND	ug/L	0.50	0.13	
Toluene	BWJ2330-BLK1	ND	ug/L	0.50	0.093	
1,2,3-Trichlorobenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.16	
1,2,4-Trichlorobenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.19	
1,1,1-Trichloroethane	BWJ2330-BLK1	ND	ug/L	0.50	0.11	
1,1,2-Trichloroethane	BWJ2330-BLK1	ND	ug/L	0.50	0.16	
Trichloroethene	BWJ2330-BLK1	ND	ug/L	0.50	0.085	
Trichlorofluoromethane	BWJ2330-BLK1	ND	ug/L	0.50	0.13	
1,2,3-Trichloropropane	BWJ2330-BLK1	ND	ug/L	1.0	0.24	
1,1,2-Trichloro-1,2,2-trifluoroethane	BWJ2330-BLK1	ND	ug/L	0.50	0.15	
1,2,4-Trimethylbenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.12	
1,3,5-Trimethylbenzene	BWJ2330-BLK1	ND	ug/L	0.50	0.12	
Vinyl chloride	BWJ2330-BLK1	ND	ug/L	0.50	0.12	
Acetone	BWJ2330-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BWJ2330-BLK1	ND	ug/L	5.0	1.2	
Allyl chloride	BWJ2330-BLK1	ND	ug/L	5.0	0.80	
t-Amyl Methyl ether	BWJ2330-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BWJ2330-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BWJ2330-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BWJ2330-BLK1	ND	ug/L	5.0	1.4	
Diethyl ether	BWJ2330-BLK1	ND	ug/L	2.0	0.21	
Ethyl methacrylate	BWJ2330-BLK1	ND	ug/L	4.0	0.97	

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**Reported:** 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2330</b>						
Ethyl t-butyl ether	BWJ2330-BLK1	ND	ug/L	0.50	0.18	
Hexachloroethane	BWJ2330-BLK1	ND	ug/L	0.50	0.16	
2-Hexanone	BWJ2330-BLK1	ND	ug/L	10	3.4	
Methacrylonitrile	BWJ2330-BLK1	ND	ug/L	10	1.7	
Methyl ethyl ketone	BWJ2330-BLK1	ND	ug/L	10	2.5	
Methyl iodide	BWJ2330-BLK1	ND	ug/L	2.0	0.47	
Methyl isobutyl ketone	BWJ2330-BLK1	ND	ug/L	10	2.1	
Methyl methacrylate	BWJ2330-BLK1	ND	ug/L	5.0	1.5	
Pentachloroethane	BWJ2330-BLK1	ND	ug/L	2.0	0.43	
Propionitrile	BWJ2330-BLK1	ND	ug/L	20	4.2	
Tetrahydrofuran	BWJ2330-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	BWJ2330-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BWJ2330-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	BWJ2330-BLK1	108	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWJ2330-BLK1	95.3	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWJ2330-BLK1	96.1	%	80 - 120 (LCL - UCL)		



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## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2330</b>										
Benzene	BWJ2330-BS1	LCS	25.480	25.000	ug/L	102		70 - 130		
Bromodichloromethane	BWJ2330-BS1	LCS	26.140	25.000	ug/L	105		70 - 130		
Chlorobenzene	BWJ2330-BS1	LCS	24.640	25.000	ug/L	98.6		70 - 130		
Chloroethane	BWJ2330-BS1	LCS	25.720	25.000	ug/L	103		70 - 130		
1,4-Dichlorobenzene	BWJ2330-BS1	LCS	23.350	25.000	ug/L	93.4		70 - 130		
1,1-Dichloroethane	BWJ2330-BS1	LCS	25.490	25.000	ug/L	102		70 - 130		
1,1-Dichloroethene	BWJ2330-BS1	LCS	26.020	25.000	ug/L	104		70 - 130		
Toluene	BWJ2330-BS1	LCS	25.110	25.000	ug/L	100		70 - 130		
Trichloroethene	BWJ2330-BS1	LCS	28.970	25.000	ug/L	116		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BWJ2330-BS1	LCS	10.480	10.000	ug/L	105		75 - 125		
Toluene-d8 (Surrogate)	BWJ2330-BS1	LCS	9.8000	10.000	ug/L	98.0		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWJ2330-BS1	LCS	9.9500	10.000	ug/L	99.5		80 - 120		



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Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery		Lab Quals
								RPD	Percent	
<b>QC Batch ID: BWJ2330</b>										
Used client sample: Y - Description: MW-11-5, 10/29/2013 07:35										
Benzene	MS	1323495-03	ND	29.190	25.000	ug/L		117		70 - 130
	MSD	1323495-03	ND	26.190	25.000	ug/L	10.8	105	20	70 - 130
Bromodichloromethane	MS	1323495-03	ND	29.140	25.000	ug/L		117		70 - 130
	MSD	1323495-03	ND	27.160	25.000	ug/L	7.0	109	20	70 - 130
Chlorobenzene	MS	1323495-03	ND	28.150	25.000	ug/L		113		70 - 130
	MSD	1323495-03	ND	25.390	25.000	ug/L	10.3	102	20	70 - 130
Chloroethane	MS	1323495-03	ND	28.350	25.000	ug/L		113		70 - 130
	MSD	1323495-03	ND	26.720	25.000	ug/L	5.9	107	20	70 - 130
1,4-Dichlorobenzene	MS	1323495-03	ND	26.870	25.000	ug/L		107		70 - 130
	MSD	1323495-03	ND	26.770	25.000	ug/L	0.4	107	20	70 - 130
1,1-Dichloroethane	MS	1323495-03	ND	29.140	25.000	ug/L		117		70 - 130
	MSD	1323495-03	ND	26.550	25.000	ug/L	9.3	106	20	70 - 130
1,1-Dichloroethene	MS	1323495-03	ND	29.350	25.000	ug/L		117		70 - 130
	MSD	1323495-03	ND	26.130	25.000	ug/L	11.6	105	20	70 - 130
Toluene	MS	1323495-03	ND	28.110	25.000	ug/L		112		70 - 130
	MSD	1323495-03	ND	25.970	25.000	ug/L	7.9	104	20	70 - 130
Trichloroethene	MS	1323495-03	ND	27.370	25.000	ug/L		109		70 - 130
	MSD	1323495-03	ND	25.200	25.000	ug/L	8.3	101	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1323495-03	ND	10.170	10.000	ug/L		102		75 - 125
	MSD	1323495-03	ND	10.370	10.000	ug/L	1.9	104		75 - 125
Toluene-d8 (Surrogate)	MS	1323495-03	ND	9.8800	10.000	ug/L		98.8		80 - 120
	MSD	1323495-03	ND	9.8700	10.000	ug/L	0.1	98.7		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1323495-03	ND	9.9100	10.000	ug/L		99.1		80 - 120
	MSD	1323495-03	ND	10.380	10.000	ug/L	4.6	104		80 - 120

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Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2330</b>						
Chloroacetonitrile	BWJ2330-BLK1	0	ug/L			
1-Chlorobutane	BWJ2330-BLK1	0	ug/L			
1,1-Dichloropropanone	BWJ2330-BLK1	0	ug/L			
Methyl acrylate	BWJ2330-BLK1	0	ug/L			
Nitrobenzene	BWJ2330-BLK1	0	ug/L			
2-Nitropropane	BWJ2330-BLK1	0	ug/L			



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2331</b>						
Nitrite as N	BWJ2331-BLK1	0.0033570	mg/L	0.050	0.0013	J
<b>QC Batch ID: BWJ2332</b>						
ortho-Phosphate as P	BWJ2332-BLK1	0.0050670	mg/L	0.020	0.0040	J
<b>QC Batch ID: BWJ2410</b>						
Chloride	BWJ2410-BLK1	ND	mg/L	0.50	0.067	
Nitrate as N	BWJ2410-BLK1	ND	mg/L	0.10	0.025	
Sulfate	BWJ2410-BLK1	ND	mg/L	1.0	0.18	
<b>QC Batch ID: BWK0783</b>						
Perchlorate	BWK0783-BLK1	ND	ug/L	4.0	0.81	
<b>QC Batch ID: BWK0785</b>						
Perchlorate	BWK0785-BLK1	ND	ug/L	4.0	0.81	



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**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2331</b>										
Nitrite as N	BWJ2331-BS1	LCS	0.45500	0.50000	mg/L	91.0		90 - 110		
<b>QC Batch ID: BWJ2332</b>										
ortho-Phosphate as P	BWJ2332-BS1	LCS	0.20456	0.20000	mg/L	102		90 - 110		
<b>QC Batch ID: BWJ2410</b>										
Chloride	BWJ2410-BS1	LCS	49.754	50.000	mg/L	99.5		90 - 110		
Nitrate as N	BWJ2410-BS1	LCS	4.9850	5.0000	mg/L	99.7		90 - 110		
Sulfate	BWJ2410-BS1	LCS	99.772	100.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: BWK0783</b>										
Perchlorate	BWK0783-BS1	LCS	10.403	10.000	ug/L	104		85 - 115		
<b>QC Batch ID: BWK0785</b>										
Perchlorate	BWK0785-BS1	LCS	11.366	10.000	ug/L	114		85 - 115		





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Reported: 11/13/2013 8:02  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWJ2331</b>		Used client sample: Y - Description: MW-11-1, 10/29/2013 09:50								
Nitrite as N	DUP	1323495-07	ND	0.0055290		mg/L			10	J
	MS	1323495-07	ND	0.49604	0.52632	mg/L		94.2	90 - 110	
	MSD	1323495-07	ND	0.48885	0.52632	mg/L	1.5	92.9	10 90 - 110	
<b>QC Batch ID: BWJ2332</b>		Used client sample: Y - Description: MW-11-1, 10/29/2013 09:50								
ortho-Phosphate as P	DUP	1323495-07	0.025746	0.023249		mg/L	10.2		10	A02
	MS	1323495-07	0.025746	0.24673	0.21053	mg/L		105	90 - 110	
	MSD	1323495-07	0.025746	0.24134	0.21053	mg/L	2.2	102	10 90 - 110	
<b>QC Batch ID: BWJ2410</b>		Used client sample: Y - Description: MW-11-1, 10/29/2013 09:50								
Chloride	DUP	1323495-07	12.564	12.492		mg/L	0.6		10	
	MS	1323495-07	12.564	66.934	50.505	mg/L		108	80 - 120	
	MSD	1323495-07	12.564	67.046	50.505	mg/L	0.2	108	10 80 - 120	
Nitrate as N	DUP	1323495-07	0.21900	0.22800		mg/L	4.0		10	
	MS	1323495-07	0.21900	5.4333	5.0505	mg/L		103	80 - 120	
	MSD	1323495-07	0.21900	5.4323	5.0505	mg/L	0.0	103	10 80 - 120	
Sulfate	DUP	1323495-07	32.893	32.870		mg/L	0.1		10	
	MS	1323495-07	32.893	142.56	101.01	mg/L		109	80 - 120	
	MSD	1323495-07	32.893	142.60	101.01	mg/L	0.0	109	10 80 - 120	
<b>QC Batch ID: BWK0783</b>		Used client sample: Y - Description: EB-7-10/29/13, 10/29/2013 07:05								
Perchlorate	DUP	1323495-02	ND	ND		ug/L			15	
	MS	1323495-02	ND	10.046	10.101	ug/L		99.5	80 - 120	
	MSD	1323495-02	ND	10.339	10.101	ug/L	2.9	102	15 80 - 120	
<b>QC Batch ID: BWK0785</b>		Used client sample: N								
Perchlorate	DUP	1323582-01	ND	ND		ug/L			15	
	MS	1323582-01	ND	10.550	10.101	ug/L		104	80 - 120	
	MSD	1323582-01	ND	10.725	10.101	ug/L	1.7	106	15 80 - 120	

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Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2333</b>						
Hexavalent Chromium	BWJ2333-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWJ2334</b>						
Hexavalent Chromium	BWJ2334-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWK0175</b>						
Total Recoverable Chromium	BWK0175-BLK1	ND	ug/L	3.0	0.50	
<b>QC Batch ID: BWK0176</b>						
Total Recoverable Chromium	BWK0176-BLK1	ND	ug/L	3.0	0.50	



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### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2333</b>										
Hexavalent Chromium	BWJ2333-BS1	LCS	0.049457	0.050000	mg/L	98.9		85	115	
<b>QC Batch ID: BWJ2334</b>										
Hexavalent Chromium	BWJ2334-BS1	LCS	0.047781	0.050000	mg/L	95.6		85	115	
<b>QC Batch ID: BWK0175</b>										
Total Recoverable Chromium	BWK0175-BS1	LCS	41.015	40.000	ug/L	103		85	115	
<b>QC Batch ID: BWK0176</b>										
Total Recoverable Chromium	BWK0176-BS1	LCS	41.909	40.000	ug/L	105		85	115	



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Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
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### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWJ2333</b>		Used client sample: Y - Description: EB-7-10/29/13, 10/29/2013 07:05								
Hexavalent Chromium	DUP	1323495-02	ND	ND		mg/L			10	
	MS	1323495-02	ND	0.051183	0.052632	mg/L		97.2		85 - 115
	MSD	1323495-02	ND	0.051215	0.052632	mg/L	0.1	97.3	10	85 - 115
<b>QC Batch ID: BWJ2334</b>		Used client sample: Y - Description: MW-3-1, 10/29/2013 13:00								
Hexavalent Chromium	DUP	1323495-12	ND	ND		mg/L			10	
	MS	1323495-12	ND	0.050377	0.052632	mg/L		95.7		85 - 115
	MSD	1323495-12	ND	0.049612	0.052632	mg/L	1.5	94.3	10	85 - 115
<b>QC Batch ID: BWK0175</b>		Used client sample: Y - Description: EB-7-10/29/13, 10/29/2013 07:05								
Total Recoverable Chromium	DUP	1323495-02	ND	ND		ug/L			20	
	MS	1323495-02	ND	40.350	40.000	ug/L		101		70 - 130
	MSD	1323495-02	ND	39.854	40.000	ug/L	1.2	99.6	20	70 - 130
<b>QC Batch ID: BWK0176</b>		Used client sample: Y - Description: MW-13, 10/30/2013 10:00								
Total Recoverable Chromium	DUP	1323598-02	66.670	70.731		ug/L	5.9		20	
	MS	1323598-02	66.670	107.44	40.000	ug/L		102		70 - 130
	MSD	1323598-02	66.670	107.50	40.000	ug/L	0.1	102	20	70 - 130

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Columbus, OH 43201

**Reported:** 11/13/2013 8:02  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A02 The difference between duplicate readings is less than the PQL.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.
- V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.



Date of Report: 11/14/2013

David Conner

Battelle MHTS

505 King Ave.

Columbus, OH 43201

Project: JPL- GW Monitoring Wells

BC Work Order: 1323598

Invoice ID: B159905

Enclosed are the results of analyses for samples received by the laboratory on 10/30/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
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

<b>1323598-01 - TB-8-10/30/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	8
Volatile Organic Analysis (EPA Method 524.2) TICs.....	11
<b>1323598-02 - MW-13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	12
Volatile Organic Analysis (EPA Method 524.2) TICs.....	15
Water Analysis (General Chemistry).....	16
Metals Analysis.....	17
<b>1323598-03 - MW-8</b>	
Volatile Organic Analysis (EPA Method 524.2).....	18
Volatile Organic Analysis (EPA Method 524.2) TICs.....	21
Water Analysis (General Chemistry).....	22
Metals Analysis.....	23
<b>1323598-04 - DUPE-5-4Q13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	24
Volatile Organic Analysis (EPA Method 524.2) TICs.....	27
Water Analysis (General Chemistry).....	28
Metals Analysis.....	29
<b>1323598-05 - MW-15</b>	
Volatile Organic Analysis (EPA Method 524.2).....	30
Volatile Organic Analysis (EPA Method 524.2) TICs.....	33
Water Analysis (General Chemistry).....	34
Metals Analysis.....	35
<b>1323598-06 - DUPE-6-4Q13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	36
Volatile Organic Analysis (EPA Method 524.2) TICs.....	39
Water Analysis (General Chemistry).....	40
Metals Analysis.....	41
<b>1323598-07 - MW-7</b>	
Volatile Organic Analysis (EPA Method 524.2).....	42
Volatile Organic Analysis (EPA Method 524.2) TICs.....	45
Water Analysis (General Chemistry).....	46
Metals Analysis.....	47

## Quality Control Reports

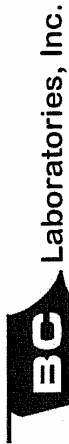
<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	48
Laboratory Control Sample.....	51
Precision and Accuracy.....	52
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	53
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	54
Laboratory Control Sample.....	55
Precision and Accuracy.....	56
<b>Metals Analysis</b>	
Method Blank Analysis.....	57
Laboratory Control Sample.....	58
Precision and Accuracy.....	59

## Notes

Notes and Definitions.....	60
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Chain of Custody Form



Page 1 of 1

**Required Fields**

Report To: Battelle MHTS  
 Client: David Conner  
 Attn: David Conner  
 Street Address: 505 King Ave.  
 City: Columbus State: OH Zip: 43201  
 Phone: (614) 424-5489 Fax: (614) 458-5489  
 Email Address: connerd@battelle.org  
 Submission #: 13-23598

Project Description: JPL-GW Monitoring  
 Project Code: 4Q13  
 Sampler(s): Blaine Tech

**Analysis Requested**

Sample #	Sample Description	Date	Time	Matrix*	VOCs EPA 524.2	Total Cr 200.8 (ug/L)	Perrchlorate by 314.0	Hexavalent Cr (7196) (mg/L)	Chloride, Nitrate, Sulfate	Orthophosphate 365.1	Nitrite 353.2
-1	TB-8-10/30/13	10-30-13	0830	AQ	X	X	X	X	X	X	X
-2	MW-13	1000			X	X	X	X	X	X	X
-3	MW-8	1315			X	X	X	X	X	X	X
-4	DUPE-5-4Q13	1325			X	X	X	X	X	X	X
-5	MW-15	1405			X	X	X	X	X	X	X
-6	DUPE-6-4Q13	1415			X	X	X	X	X	X	X
-7	MW-7	1525			X	X	X	X	X	X	X

Notes: MS/MSD

SHORT-HOLDING TIME  
 (G+6) (NO<sub>2</sub>) (NO<sub>3</sub>) (OP) SS  
 DO Cl<sub>2</sub> BOD MBAS GOT

CHK BY: YAD  
 DISTRIBUTION: [Signature]  
 SUB-OUT: [ ]

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days: \*  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

Lab TAT Approval: \* Additional Charges May Apply

**Cost Center:**  
 1. Relinquished By: [Signature] Date: 10-30-13 Time: 1655  
 2. Relinquished By: [Signature] Date: 10-30-13 Time: 2030  
 3. Relinquished By: [Signature] Date: 10/30/13 Time: 2030

**Comments:**  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR QC (MS/MSD)  
 90% Level III and 10% Level IV data validation required; Level IV Notated on C of C  
 NOTE: ALL ANALYSIS REQUIRED TO HAVE CALIBRATION SUMMARIES (Inform QC)

MBU Site   
 CVX RCRA   
 Geotracker 5 File (CA Default)   
 Geotracker 2 File   
 Other (Specify)

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327 - 4911 Fax: (661) 327 - 1918 www.bclabs.com

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Chain of Custody and Cooler Receipt Form for 1323598 Page 2 of 2

Submission #: 13-23498

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. 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: 0.97. Container: Voa. Thermometer ID: 207. Date/Time: 10/30/13 2030. Temperature: (A) 1.7 C, (C) 1.7 C. Analyst Init: SLS.

Table with columns: SAMPLE CONTAINERS, SAMPLE NUMBERS (1-10). Rows include: GENERAL MINERAL/GENERAL, PE UNPRESERVED, INORGANIC CHEMICAL METALS, CYANIDE, NITROGEN FORMS, TOTAL SULFIDE, NITRATE/NITRITE, TOTAL ORGANIC CARBON, TOX, CHEMICAL OXYGEN DEMAND, PHENOLICS, 0ml VOA VIAL TRAVEL BLANK, 0ml VOA VIAL, EPA 413.1, 413.2, 418.1, ODOR, RADIOLOGICAL, BACTERIOLOGICAL, 0 ml VOA VIAL- 504, EPA 508/608/8080, EPA 515.1/8150, EPA 525, EPA 525 TRAVEL BLANK, 00ml EPA 547, 00ml EPA 531.1, EPA 548, EPA 549, EPA 632, EPA 8015M, AMBER, 1 OZ. JAR, 2 OZ. JAR, SOIL SLEEVE, PCB VIAL, PLASTIC BAG, FERROUS IRON, ENCORE, SMART KIT, Summa Canister.

Comments: Sample Numbering Completed By: [Signature] Date/Time: 10/30/13 2030. Legend: = Actual / C = Corrected.

IS:\MyDOCS\WordPerfect\LAB\_DOC\FORMS\SAMREC151



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323598-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-8-10/30/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/30/2013 20:30 <b>Sampling Date:</b> 10/30/2013 08:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-8-10/30/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323598-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/30/2013 20:30 <b>Sampling Date:</b> 10/30/2013 10:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323598-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-8 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/30/2013 20:30 <b>Sampling Date:</b> 10/30/2013 13:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-8 Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323598-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUPE-5-4Q13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/30/2013 20:30 <b>Sampling Date:</b> 10/30/2013 13:25 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUPE-5-4Q13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323598-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-15 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/30/2013 20:30 <b>Sampling Date:</b> 10/30/2013 14:05 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-15 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323598-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUPE-6-4Q13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/30/2013 20:30 <b>Sampling Date:</b> 10/30/2013 14:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUPE-6-4Q13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323598-07</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 10/30/2013 20:30
	<b>Project Number:</b> JPL-GW	<b>Sampling Date:</b> 10/30/2013 15:25
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MW-7	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Blaine Tech of BAT	<b>Sample Type:</b> Water
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): MW-7
		Matrix: W
		Sample QC Type (SACode): CS
		Cooler ID:



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-01	<b>Client Sample Name:</b> JPL-GW, TB-8-10/30/13, 10/30/2013 8:30:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-01		<b>Client Sample Name:</b> JPL-GW, TB-8-10/30/13, 10/30/2013 8:30:00AM, Blaine Tech						
<b>Constituent</b>	<b>Result</b>	<b>Units</b>	<b>PQL</b>	<b>MDL</b>	<b>Method</b>	<b>MB Bias</b>	<b>Lab Quals</b>	<b>Run #</b>
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-01	<b>Client Sample Name:</b> JPL-GW, TB-8-10/30/13, 10/30/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 10:15	MGC	MS-V5	1	BWJ2415



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323598-01	<b>Client Sample Name:</b> JPL-GW, TB-8-10/30/13, 10/30/2013 8:30:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 10:15	MGC	MS-V5	1	BWJ2415





Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-02	<b>Client Sample Name:</b> JPL-GW, MW-13, 10/30/2013 10:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>2.5</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.39</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	J	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>1,1-Dichloroethene</b>	<b>0.20</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.18</b>	<b>EPA-524.2</b>	ND	J	1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-02	<b>Client Sample Name:</b> JPL-GW, MW-13, 10/30/2013 10:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>1.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.16</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-02	<b>Client Sample Name:</b> JPL-GW, MW-13, 10/30/2013 10:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 07:58	MGC	MS-V5	1	BWJ2415



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323598-02	<b>Client Sample Name:</b> JPL-GW, MW-13, 10/30/2013 10:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 07:58	MGC	MS-V5	1	BWJ2415

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505 King Ave.  
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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323598-02	<b>Client Sample Name:</b> JPL-GW, MW-13, 10/30/2013 10:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	72	mg/L	0.50	0.067	EPA-300.0	ND		1
Nitrate as N	7.3	mg/L	0.10	0.025	EPA-300.0	ND		1
Sulfate	75	mg/L	1.0	0.18	EPA-300.0	ND		1
Nitrite as N	ND	mg/L	0.050	0.012	EPA-353.2	ND		2
Perchlorate	520	ug/L	200	40	EPA-314.0	ND	A01	3
ortho-Phosphate as P	0.041	mg/L	0.020	0.0040	EPA-365.1	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	10/31/13	10/31/13 17:07	LS1	IC2	1	BWJ2500
2	EPA-353.2	10/31/13	10/31/13 10:30	TDC	KONE-1	1	BWK0193
3	EPA-314.0	11/12/13	11/12/13 16:28	TMS	IC6	50	BWK0964
4	EPA-365.1	10/31/13	10/31/13 11:14	TDC	KONE-1	1	BWK0187

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323598-02	<b>Client Sample Name:</b> JPL-GW, MW-13, 10/30/2013 10:00:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0015	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	67	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/31/13	10/31/13 09:16	TDC	KONE-1	1	BWK0168
2	EPA-200.8	11/04/13	11/05/13 01:43	JSS	PE-EL2	1	BWK0176

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505 King Ave.  
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Reported: 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-03	<b>Client Sample Name:</b> JPL-GW, MW-8, 10/30/2013 1:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>0.86</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>Dibromochloromethane</b>	<b>0.50</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Columbus, OH 43201

Reported: 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-03	<b>Client Sample Name:</b> JPL-GW, MW-8, 10/30/2013 1:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.090</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
<b>Trichlorofluoromethane</b>	<b>0.34</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-03	<b>Client Sample Name:</b> JPL-GW, MW-8, 10/30/2013 1:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 10:38	MGC	MS-V5	1	BWJ2415



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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323598-03	<b>Client Sample Name:</b> JPL-GW, MW-8, 10/30/2013 1:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 10:38	MGC	MS-V5	1	BWJ2415



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323598-03	<b>Client Sample Name:</b> JPL-GW, MW-8, 10/30/2013 1:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	18	mg/L	0.50	0.067	EPA-300.0	ND		1
Nitrate as N	1.4	mg/L	0.10	0.025	EPA-300.0	ND		1
Sulfate	26	mg/L	1.0	0.18	EPA-300.0	ND		1
Nitrite as N	ND	mg/L	0.050	0.012	EPA-353.2	ND		2
Perchlorate	71	ug/L	40	8.1	EPA-314.0	ND	A01	3
ortho-Phosphate as P	0.0097	mg/L	0.020	0.0040	EPA-365.1	ND	J	4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	10/31/13	10/31/13 17:23	LS1	IC2	1	BWJ2500
2	EPA-353.2	10/31/13	10/31/13 10:32	TDC	KONE-1	1	BWK0193
3	EPA-314.0	11/12/13	11/12/13 23:35	OLH	IC6	10	BWK0964
4	EPA-365.1	10/31/13	10/31/13 11:14	TDC	KONE-1	1	BWK0187

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505 King Ave.  
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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323598-03	<b>Client Sample Name:</b> JPL-GW, MW-8, 10/30/2013 1:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0010	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.4	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/31/13	10/31/13 09:09	TDC	KONE-1	1	BWK0168
2	EPA-200.8	11/04/13	11/05/13 02:12	JSS	PE-EL2	1	BWK0176

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Reported: 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-04	<b>Client Sample Name:</b> JPL-GW, DUPE-5-4Q13, 10/30/2013 1:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>0.88</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.2</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>Dibromochloromethane</b>	<b>0.56</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-04	<b>Client Sample Name:</b> JPL-GW, DUPE-5-4Q13, 10/30/2013 1:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.090</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
<b>Trichlorofluoromethane</b>	<b>0.32</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-04	<b>Client Sample Name:</b> JPL-GW, DUPE-5-4Q13, 10/30/2013 1:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 11:01	MGC	MS-V5	1	BWJ2415



Battelle MHTS  
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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323598-04	<b>Client Sample Name:</b> JPL-GW, DUPE-5-4Q13, 10/30/2013 1:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 11:01	MGC	MS-V5	1	BWJ2415





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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323598-04	<b>Client Sample Name:</b> JPL-GW, DUPE-5-4Q13, 10/30/2013 1:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	71	ug/L	20	4.0	EPA-314.0	ND	A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/12/13	11/12/13 16:56	TMS	IC6	5	BWK0964

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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323598-04	<b>Client Sample Name:</b> JPL-GW, DUPE-5-4Q13, 10/30/2013 1:25:00PM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0011	mg/L	0.0020	0.00070	EPA-7196	ND	J	1
Total Recoverable Chromium	2.1	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/31/13	10/31/13 09:09	TDC	KONE-1	1	BWK0168
2	EPA-200.8	11/04/13	11/05/13 02:15	JSS	PE-EL2	1	BWK0176

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**Reported:** 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-05	<b>Client Sample Name:</b> JPL-GW, MW-15, 10/30/2013 2:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-05	<b>Client Sample Name:</b> JPL-GW, MW-15, 10/30/2013 2:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-05	<b>Client Sample Name:</b> JPL-GW, MW-15, 10/30/2013 2:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 11:24	MGC	MS-V5	1	BWJ2415



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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323598-05	<b>Client Sample Name:</b> JPL-GW, MW-15, 10/30/2013 2:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 11:24	MGC	MS-V5	1	BWJ2415

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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323598-05	<b>Client Sample Name:</b> JPL-GW, MW-15, 10/30/2013 2:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/12/13	11/12/13 11:51	LD1	IC6	1	BWK0964



Battelle MHTS  
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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323598-05	<b>Client Sample Name:</b> JPL-GW, MW-15, 10/30/2013 2:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/31/13	10/31/13 09:09	TDC	KONE-1	1	BWK0168
2	EPA-200.8	11/04/13	11/05/13 02:18	JSS	PE-EL2	1	BWK0176

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**Reported:** 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-06	<b>Client Sample Name:</b> JPL-GW, DUPE-6-4Q13, 10/30/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-06	<b>Client Sample Name:</b> JPL-GW, DUPE-6-4Q13, 10/30/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-06	<b>Client Sample Name:</b> JPL-GW, DUPE-6-4Q13, 10/30/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 11:46	MGC	MS-V5	1	BWJ2415

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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323598-06	<b>Client Sample Name:</b> JPL-GW, DUPE-6-4Q13, 10/30/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 11:46	MGC	MS-V5	1	BWJ2415



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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323598-06	<b>Client Sample Name:</b> JPL-GW, DUPE-6-4Q13, 10/30/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/12/13	11/12/13 12:05	LD1	IC6	1	BWK0964

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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323598-06	<b>Client Sample Name:</b> JPL-GW, DUPE-6-4Q13, 10/30/2013 2:15:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-7196	10/31/13	10/31/13	10:12	TDC	KONE-1	1	BWK0168
2	EPA-200.8	11/04/13	11/05/13	02:22	JSS	PE-EL2	1	BWK0176

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Reported: 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-07	<b>Client Sample Name:</b> JPL-GW, MW-7, 10/30/2013 3:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>1.9</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>8.7</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>Dibromochloromethane</b>	<b>0.65</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-07	<b>Client Sample Name:</b> JPL-GW, MW-7, 10/30/2013 3:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.27</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323598-07	<b>Client Sample Name:</b> JPL-GW, MW-7, 10/30/2013 3:25:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 12:09	MGC	MS-V5	1	BWJ2415



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323598-07	<b>Client Sample Name:</b> JPL-GW, MW-7, 10/30/2013 3:25:00PM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	10/31/13	10/31/13 12:09	MGC	MS-V5	1	BWJ2415



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**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323598-07	<b>Client Sample Name:</b> JPL-GW, MW-7, 10/30/2013 3:25:00PM, Blaine Tech
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	72	mg/L	0.50	0.067	EPA-300.0	ND		1
Nitrate as N	1.3	mg/L	0.10	0.025	EPA-300.0	ND		1
Sulfate	39	mg/L	1.0	0.18	EPA-300.0	ND		1
Nitrite as N	ND	mg/L	0.050	0.012	EPA-353.2	ND		2
Perchlorate	6.1	ug/L	4.0	0.81	EPA-314.0	ND		3
ortho-Phosphate as P	0.021	mg/L	0.020	0.0040	EPA-365.1	ND		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	10/31/13	10/31/13 17:39	LS1	IC2	1	BWJ2500
2	EPA-353.2	10/31/13	10/31/13 10:34	TDC	KONE-1	1	BWK0193
3	EPA-314.0	11/12/13	11/12/13 12:19	LD1	IC6	1	BWK0964
4	EPA-365.1	10/31/13	10/31/13 11:14	TDC	KONE-1	1	BWK0187



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### Metals Analysis

<b>BCL Sample ID:</b> 1323598-07	<b>Client Sample Name:</b> JPL-GW, MW-7, 10/30/2013 3:25:00PM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0035	mg/L	0.0020	0.00070	EPA-7196	ND		1
Total Recoverable Chromium	16	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/31/13	10/31/13 10:12	TDC	KONE-1	1	BWK0168
2	EPA-200.8	11/04/13	11/05/13 02:25	JSS	PE-EL2	1	BWK0176

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Reported: 11/14/2013 9:50  
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Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2415</b>						
Benzene	BWJ2415-BLK1	ND	ug/L	0.50	0.083	
Bromobenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.13	
Bromochloromethane	BWJ2415-BLK1	ND	ug/L	0.50	0.24	
Bromodichloromethane	BWJ2415-BLK1	ND	ug/L	0.50	0.14	
Bromoform	BWJ2415-BLK1	ND	ug/L	0.50	0.27	
Bromomethane	BWJ2415-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.11	
sec-Butylbenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.15	
tert-Butylbenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.13	
Carbon tetrachloride	BWJ2415-BLK1	ND	ug/L	0.50	0.18	
Chlorobenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.093	
Chloroethane	BWJ2415-BLK1	ND	ug/L	0.50	0.14	
Chloroform	BWJ2415-BLK1	ND	ug/L	0.50	0.12	
Chloromethane	BWJ2415-BLK1	ND	ug/L	0.50	0.14	
2-Chlorotoluene	BWJ2415-BLK1	ND	ug/L	0.50	0.20	
4-Chlorotoluene	BWJ2415-BLK1	ND	ug/L	0.50	0.15	
Dibromochloromethane	BWJ2415-BLK1	ND	ug/L	0.50	0.13	
1,2-Dibromo-3-chloropropane	BWJ2415-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane	BWJ2415-BLK1	ND	ug/L	0.50	0.16	
Dibromomethane	BWJ2415-BLK1	ND	ug/L	0.50	0.24	
1,2-Dichlorobenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.072	
1,3-Dichlorobenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.15	
1,4-Dichlorobenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.062	
Dichlorodifluoromethane	BWJ2415-BLK1	ND	ug/L	0.50	0.099	
1,1-Dichloroethane	BWJ2415-BLK1	ND	ug/L	0.50	0.11	
1,2-Dichloroethane	BWJ2415-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	BWJ2415-BLK1	ND	ug/L	0.50	0.18	
cis-1,2-Dichloroethene	BWJ2415-BLK1	ND	ug/L	0.50	0.085	
trans-1,2-Dichloroethene	BWJ2415-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloropropane	BWJ2415-BLK1	ND	ug/L	0.50	0.13	
1,3-Dichloropropane	BWJ2415-BLK1	ND	ug/L	0.50	0.086	
2,2-Dichloropropane	BWJ2415-BLK1	ND	ug/L	0.50	0.13	
1,1-Dichloropropene	BWJ2415-BLK1	ND	ug/L	0.50	0.085	
cis-1,3-Dichloropropene	BWJ2415-BLK1	ND	ug/L	0.50	0.14	

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Reported: 11/14/2013 9:50  
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Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2415</b>						
trans-1,3-Dichloropropene	BWJ2415-BLK1	ND	ug/L	0.50	0.079	
Ethylbenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.098	
Hexachlorobutadiene	BWJ2415-BLK1	ND	ug/L	0.50	0.17	
Isopropylbenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	BWJ2415-BLK1	ND	ug/L	0.50	0.12	
Methylene chloride	BWJ2415-BLK1	ND	ug/L	0.50	0.48	
Methyl t-butyl ether	BWJ2415-BLK1	ND	ug/L	0.50	0.11	
Naphthalene	BWJ2415-BLK1	ND	ug/L	0.50	0.36	
n-Propylbenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.11	
Styrene	BWJ2415-BLK1	ND	ug/L	0.50	0.068	
1,1,1,2-Tetrachloroethane	BWJ2415-BLK1	ND	ug/L	0.50	0.18	
1,1,2,2-Tetrachloroethane	BWJ2415-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	BWJ2415-BLK1	ND	ug/L	0.50	0.13	
Toluene	BWJ2415-BLK1	ND	ug/L	0.50	0.093	
1,2,3-Trichlorobenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.16	
1,2,4-Trichlorobenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.19	
1,1,1-Trichloroethane	BWJ2415-BLK1	ND	ug/L	0.50	0.11	
1,1,2-Trichloroethane	BWJ2415-BLK1	ND	ug/L	0.50	0.16	
Trichloroethene	BWJ2415-BLK1	ND	ug/L	0.50	0.085	
Trichlorofluoromethane	BWJ2415-BLK1	ND	ug/L	0.50	0.13	
1,2,3-Trichloropropane	BWJ2415-BLK1	ND	ug/L	1.0	0.24	
1,1,2-Trichloro-1,2,2-trifluoroethane	BWJ2415-BLK1	ND	ug/L	0.50	0.15	
1,2,4-Trimethylbenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.12	
1,3,5-Trimethylbenzene	BWJ2415-BLK1	ND	ug/L	0.50	0.12	
Vinyl chloride	BWJ2415-BLK1	ND	ug/L	0.50	0.12	
Acetone	BWJ2415-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BWJ2415-BLK1	ND	ug/L	5.0	1.2	
Allyl chloride	BWJ2415-BLK1	ND	ug/L	5.0	0.80	
t-Amyl Methyl ether	BWJ2415-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BWJ2415-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BWJ2415-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BWJ2415-BLK1	ND	ug/L	5.0	1.4	
Diethyl ether	BWJ2415-BLK1	ND	ug/L	2.0	0.21	
Ethyl methacrylate	BWJ2415-BLK1	ND	ug/L	4.0	0.97	

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**Reported:** 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2415</b>						
Ethyl t-butyl ether	BWJ2415-BLK1	ND	ug/L	0.50	0.18	
Hexachloroethane	BWJ2415-BLK1	ND	ug/L	0.50	0.16	
2-Hexanone	BWJ2415-BLK1	ND	ug/L	10	3.4	
Methacrylonitrile	BWJ2415-BLK1	ND	ug/L	10	1.7	
Methyl ethyl ketone	BWJ2415-BLK1	ND	ug/L	10	2.5	
Methyl iodide	BWJ2415-BLK1	ND	ug/L	2.0	0.47	
Methyl isobutyl ketone	BWJ2415-BLK1	ND	ug/L	10	2.1	
Methyl methacrylate	BWJ2415-BLK1	ND	ug/L	5.0	1.5	
Pentachloroethane	BWJ2415-BLK1	ND	ug/L	2.0	0.43	
Propionitrile	BWJ2415-BLK1	ND	ug/L	20	4.2	
Tetrahydrofuran	BWJ2415-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	BWJ2415-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BWJ2415-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	BWJ2415-BLK1	108	%	75 - 125 (LCL - UCL)		
Toluene-d8 (Surrogate)	BWJ2415-BLK1	98.4	%	80 - 120 (LCL - UCL)		
4-Bromofluorobenzene (Surrogate)	BWJ2415-BLK1	95.9	%	80 - 120 (LCL - UCL)		



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## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2415</b>										
Benzene	BWJ2415-BS1	LCS	24.970	25.000	ug/L	99.9		70 - 130		
Bromodichloromethane	BWJ2415-BS1	LCS	25.760	25.000	ug/L	103		70 - 130		
Chlorobenzene	BWJ2415-BS1	LCS	24.170	25.000	ug/L	96.7		70 - 130		
Chloroethane	BWJ2415-BS1	LCS	25.020	25.000	ug/L	100		70 - 130		
1,4-Dichlorobenzene	BWJ2415-BS1	LCS	24.870	25.000	ug/L	99.5		70 - 130		
1,1-Dichloroethane	BWJ2415-BS1	LCS	25.850	25.000	ug/L	103		70 - 130		
1,1-Dichloroethene	BWJ2415-BS1	LCS	25.840	25.000	ug/L	103		70 - 130		
Toluene	BWJ2415-BS1	LCS	25.470	25.000	ug/L	102		70 - 130		
Trichloroethene	BWJ2415-BS1	LCS	24.600	25.000	ug/L	98.4		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BWJ2415-BS1	LCS	10.080	10.000	ug/L	101		75 - 125		
Toluene-d8 (Surrogate)	BWJ2415-BS1	LCS	9.7600	10.000	ug/L	97.6		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWJ2415-BS1	LCS	10.140	10.000	ug/L	101		80 - 120		





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### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery		Lab
								RPD	Percent Recovery	
<b>QC Batch ID: BWJ2415</b>		Used client sample: Y - Description: MW-13, 10/30/2013 10:00								
Benzene	MS	1323598-02	ND	25.990	25.000	ug/L		104		70 - 130
	MSD	1323598-02	ND	25.220	25.000	ug/L	3.0	101	20	70 - 130
Bromodichloromethane	MS	1323598-02	ND	26.510	25.000	ug/L		106		70 - 130
	MSD	1323598-02	ND	25.830	25.000	ug/L	2.6	103	20	70 - 130
Chlorobenzene	MS	1323598-02	ND	24.850	25.000	ug/L		99.4		70 - 130
	MSD	1323598-02	ND	24.590	25.000	ug/L	1.1	98.4	20	70 - 130
Chloroethane	MS	1323598-02	ND	25.390	25.000	ug/L		102		70 - 130
	MSD	1323598-02	ND	25.100	25.000	ug/L	1.1	100	20	70 - 130
1,4-Dichlorobenzene	MS	1323598-02	ND	24.150	25.000	ug/L		96.6		70 - 130
	MSD	1323598-02	ND	24.190	25.000	ug/L	0.2	96.8	20	70 - 130
1,1-Dichloroethane	MS	1323598-02	0.39000	26.530	25.000	ug/L		105		70 - 130
	MSD	1323598-02	0.39000	26.310	25.000	ug/L	0.8	104	20	70 - 130
1,1-Dichloroethene	MS	1323598-02	0.20000	26.370	25.000	ug/L		105		70 - 130
	MSD	1323598-02	0.20000	26.120	25.000	ug/L	1.0	104	20	70 - 130
Toluene	MS	1323598-02	ND	25.760	25.000	ug/L		103		70 - 130
	MSD	1323598-02	ND	25.480	25.000	ug/L	1.1	102	20	70 - 130
Trichloroethene	MS	1323598-02	0.16000	25.420	25.000	ug/L		101		70 - 130
	MSD	1323598-02	0.16000	25.600	25.000	ug/L	0.7	102	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1323598-02	ND	10.100	10.000	ug/L		101		75 - 125
	MSD	1323598-02	ND	9.9300	10.000	ug/L	1.7	99.3		75 - 125
Toluene-d8 (Surrogate)	MS	1323598-02	ND	9.6000	10.000	ug/L		96.0		80 - 120
	MSD	1323598-02	ND	9.6900	10.000	ug/L	0.9	96.9		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1323598-02	ND	10.150	10.000	ug/L		102		80 - 120
	MSD	1323598-02	ND	9.7600	10.000	ug/L	3.9	97.6		80 - 120

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## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2415</b>						
Chloroacetonitrile	BWJ2415-BLK1	0	ug/L			
1-Chlorobutane	BWJ2415-BLK1	0	ug/L			
1,1-Dichloropropanone	BWJ2415-BLK1	0	ug/L			
Methyl acrylate	BWJ2415-BLK1	0	ug/L			
Nitrobenzene	BWJ2415-BLK1	0	ug/L			
2-Nitropropane	BWJ2415-BLK1	0	ug/L			



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### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWJ2500</b>						
Chloride	BWJ2500-BLK1	ND	mg/L	0.50	0.067	
Nitrate as N	BWJ2500-BLK1	ND	mg/L	0.10	0.025	
Sulfate	BWJ2500-BLK1	ND	mg/L	1.0	0.18	
<b>QC Batch ID: BWK0187</b>						
ortho-Phosphate as P	BWK0187-BLK1	ND	mg/L	0.020	0.0040	
<b>QC Batch ID: BWK0193</b>						
Nitrite as N	BWK0193-BLK1	0.0053970	mg/L	0.050	0.0013	J
<b>QC Batch ID: BWK0964</b>						
Perchlorate	BWK0964-BLK1	ND	ug/L	4.0	0.81	



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## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWJ2500</b>										
Chloride	BWJ2500-BS1	LCS	50.613	50.000	mg/L	101		90 - 110		
Nitrate as N	BWJ2500-BS1	LCS	4.9430	5.0000	mg/L	98.9		90 - 110		
Sulfate	BWJ2500-BS1	LCS	98.795	100.00	mg/L	98.8		90 - 110		
<b>QC Batch ID: BWK0187</b>										
ortho-Phosphate as P	BWK0187-BS1	LCS	0.20735	0.20000	mg/L	104		90 - 110		
<b>QC Batch ID: BWK0193</b>										
Nitrite as N	BWK0193-BS1	LCS	0.46117	0.50000	mg/L	92.2		90 - 110		
<b>QC Batch ID: BWK0964</b>										
Perchlorate	BWK0964-BS1	LCS	10.460	10.000	ug/L	105		85 - 115		



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### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWJ2500</b>		Used client sample: N								
Chloride	DUP	1323569-01	102.51	102.31		mg/L	0.2		10	
	MS	1323569-01	102.51	157.21	50.505	mg/L		108		80 - 120
	MSD	1323569-01	102.51	157.31	50.505	mg/L	0.1	109	10	80 - 120
Nitrate as N	DUP	1323569-01	0.35200	0.36800		mg/L	4.4		10	
	MS	1323569-01	0.35200	5.2848	5.0505	mg/L		97.7		80 - 120
	MSD	1323569-01	0.35200	5.6283	5.0505	mg/L	6.3	104	10	80 - 120
Sulfate	DUP	1323569-01	31.369	31.306		mg/L	0.2		10	
	MS	1323569-01	31.369	139.04	101.01	mg/L		107		80 - 120
	MSD	1323569-01	31.369	138.95	101.01	mg/L	0.1	107	10	80 - 120
<b>QC Batch ID: BWK0187</b>		Used client sample: Y - Description: MW-13, 10/30/2013 10:00								
ortho-Phosphate as P	DUP	1323598-02	0.040598	0.037405		mg/L	8.2		10	
	MS	1323598-02	0.040598	0.26608	0.21053	mg/L		107		90 - 110
	MSD	1323598-02	0.040598	0.26850	0.21053	mg/L	0.9	108	10	90 - 110
<b>QC Batch ID: BWK0193</b>		Used client sample: Y - Description: MW-13, 10/30/2013 10:00								
Nitrite as N	DUP	1323598-02	ND	0.0062380		mg/L			10	J
	MS	1323598-02	ND	0.51103	0.52632	mg/L		97.1		90 - 110
	MSD	1323598-02	ND	0.50915	0.52632	mg/L	0.4	96.7	10	90 - 110
<b>QC Batch ID: BWK0964</b>		Used client sample: Y - Description: MW-13, 10/30/2013 10:00								
Perchlorate	DUP	1323598-02	520.30	558.88		ug/L	7.2		15	
	MS	1323598-02	520.30	1090.1	505.05	ug/L		113		80 - 120
	MSD	1323598-02	520.30	1069.9	505.05	ug/L	1.9	109	15	80 - 120

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWK0168</b>						
Hexavalent Chromium	BWK0168-BLK1	ND	mg/L	0.0020	0.00070	
<b>QC Batch ID: BWK0176</b>						
Total Recoverable Chromium	BWK0176-BLK1	ND	ug/L	3.0	0.50	



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**Reported:** 11/14/2013 9:50  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab	Quals
								Percent Recovery	RPD		
<b>QC Batch ID: BWK0168</b>											
Hexavalent Chromium	BWK0168-BS1	LCS	0.045508	0.050000	mg/L	91.0		85	115		
<b>QC Batch ID: BWK0176</b>											
Total Recoverable Chromium	BWK0176-BS1	LCS	41.909	40.000	ug/L	105		85	115		



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Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWK0168</b>		Used client sample: Y - Description: MW-13, 10/30/2013 10:00								
Hexavalent Chromium	DUP	1323598-02	0.0015030	ND		mg/L			10	
	MS	1323598-02	0.0015030	0.051691	0.052632	mg/L		95.4		85 - 115
	MSD	1323598-02	0.0015030	0.052266	0.052632	mg/L	1.1	96.5	10	85 - 115
<b>QC Batch ID: BWK0176</b>		Used client sample: Y - Description: MW-13, 10/30/2013 10:00								
Total Recoverable Chromium	DUP	1323598-02	66.670	70.731		ug/L	5.9		20	
	MS	1323598-02	66.670	107.44	40.000	ug/L		102		70 - 130
	MSD	1323598-02	66.670	107.50	40.000	ug/L	0.1	102	20	70 - 130

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/14/2013 9:50  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A01 PQL's and MDL's are raised due to sample dilution.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.
- V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.



Date of Report: 11/15/2013

David Conner

Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Project: JPL- GW Monitoring Wells  
BC Work Order: 1323687  
Invoice ID: B160016

Enclosed are the results of analyses for samples received by the laboratory on 10/31/2013. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014



# Table of Contents

## Sample Information

Chain of Custody and Cooler Receipt form.....	4
Laboratory / Client Sample Cross Reference.....	6

## Sample Results

<b>1323687-01 - TB-9-10/31/13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	9
Volatile Organic Analysis (EPA Method 524.2) TICs.....	12
<b>1323687-02 - MW-6</b>	
Volatile Organic Analysis (EPA Method 524.2).....	13
Volatile Organic Analysis (EPA Method 524.2) TICs.....	16
Water Analysis (General Chemistry).....	17
Metals Analysis.....	18
<b>1323687-03 - MW-16-grab</b>	
Volatile Organic Analysis (EPA Method 524.2).....	19
Volatile Organic Analysis (EPA Method 524.2) TICs.....	22
Water Analysis (General Chemistry).....	23
Metals Analysis.....	24
<b>1323687-04 - DUPE-7-4Q13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	25
Volatile Organic Analysis (EPA Method 524.2) TICs.....	28
Water Analysis (General Chemistry).....	29
Metals Analysis.....	30
<b>1323687-05 - MW-1</b>	
Volatile Organic Analysis (EPA Method 524.2).....	31
Volatile Organic Analysis (EPA Method 524.2) TICs.....	34
Water Analysis (General Chemistry).....	35
Metals Analysis.....	36
<b>1323687-06 - MW-5</b>	
Volatile Organic Analysis (EPA Method 524.2).....	37
Volatile Organic Analysis (EPA Method 524.2) TICs.....	40
Water Analysis (General Chemistry).....	41
Metals Analysis.....	42
<b>1323687-07 - MW-10</b>	
Volatile Organic Analysis (EPA Method 524.2).....	43
Volatile Organic Analysis (EPA Method 524.2) TICs.....	46
Water Analysis (General Chemistry).....	47
Metals Analysis.....	48
<b>1323687-08 - DUPE-8-4Q13</b>	
Volatile Organic Analysis (EPA Method 524.2).....	49
Volatile Organic Analysis (EPA Method 524.2) TICs.....	52
Water Analysis (General Chemistry).....	53
Metals Analysis.....	54

## Quality Control Reports

<b>Volatile Organic Analysis (EPA Method 524.2)</b>	
Method Blank Analysis.....	55
Laboratory Control Sample.....	58
Precision and Accuracy.....	59
<b>Volatile Organic Analysis (EPA Method 524.2) TICs</b>	
Method Blank Analysis.....	60
<b>Water Analysis (General Chemistry)</b>	
Method Blank Analysis.....	61
Laboratory Control Sample.....	62
Precision and Accuracy.....	63
<b>Metals Analysis</b>	



## Table of Contents

Method Blank Analysis..... 64  
 Laboratory Control Sample..... 65  
 Precision and Accuracy..... 66

### Notes

Notes and Definitions..... 67



Chain of Custody Form



\*Required Fields # 13-23687

Report To: Client: Battelle MHTS  
 Attn: David Conner  
 Street Address: 505 King Ave.  
 City: Columbus State: OH Zip: 43201  
 Phone: 614 424 5489 Fax: 614 458 5489  
 Email Address: connerd@battelle.org  
 Submission #:

Project Description: JPL-GW Monitoring  
 Project Code: 4013  
 Sampler(s): Blaine Tech

Billing  
 Client: SAME  
 Attn:  
 Address:  
 City:  
 State:  
 Zip:  
 Are there any tests with holding times? less than or equal to 48 hours?  
 Yes  No  
 \*Standard Turnaround = 10

Sample #	Sample Description	Date	Time	Matrix*	Analysis Requested												
					Total Cr 200.8 (ug/L)	Perchlorate by 314.0	Hexavalent Cr (7196) (mg/L)	Chloride, Nitrate, Sulfate	Orthophosphate 365.1	Nitrite 353.2	DO	Cl <sub>2</sub>	BOD	MBAS	COT		
-1	TB-9-10/31/13	10/31/13	0715	AQ	X	X	X	X	X	X	X	X	X	X	X	X	X
-2	MW-9		0830		X	X	X	X	X	X	X	X	X	X	X	X	X
-3	MW-16-Grab		1115		X	X	X	X	X	X	X	X	X	X	X	X	X
-4	DOPE-7-4013		1125		X	X	X	X	X	X	X	X	X	X	X	X	X
-5	MW-1		1305		X	X	X	X	X	X	X	X	X	X	X	X	X
-6	MW-5		1350		X	X	X	X	X	X	X	X	X	X	X	X	X
-7	MW-10		1430		X	X	X	X	X	X	X	X	X	X	X	X	X
-8	DOPE-8-4013		1440		X	X	X	X	X	X	X	X	X	X	X	X	X

Matrix Types: S = Soil SL = Sludge DW = Drinking Water WW = Wastewater GW = Groundwater L = Liquid M = Miscellaneous O = Other

Turnaround # of working days:  24 Hr Rush  48 Hr Rush  3-5 Day Rush  Normal (10 - Days)

Lab TAT Approval: \_\_\_\_\_ \*Additional Charges May Apply

Comments:  
 PLEASE NOTATE WHICH SAMPLES TO USE FOR QC (MS/MSD)  
 MBU Site  CVX RCRA  Geotracker 5 File (CA Default)  
 Geotracker 2 File  Other (Specify)

Global ID: \_\_\_\_\_

1. Relinquished By: [Signature] Date: 10/31/13 Time: 1630  
 2. Relinquished By: [Signature] Date: 10/31/13 Time: 1640  
 3. Relinquished By: [Signature] Date: 10/31/13 Time: 2040

BC Laboratories, Inc. 4100 Atlas Court - Bakersfield CA 93308 (661) 327-4911 Fax: (661) 327-1918 www.bclabs.com



Chain of Custody and Cooler Receipt Form for 1323687 Page 2 of 2

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

Submission #: 13-23687

SHIPPING INFORMATION: Federal Express, UPS, Hand Delivery, BC Lab Field Service, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Ice Chest, Containers, None. 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: Q+PE, Thermometer ID: 207, Date/Time: 10/31/13 2040, Temperature: (A) 1.6 C, 1.7 C, Analyst Init: SAS.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include: GENERAL MINERAL/GENERAL PE UNPRESERVED, INORGANIC CHEMICAL METALS, NITROGEN FORMS, TOTAL SULFIDE, NITRATE/NITRITE, TOTAL ORGANIC CARBON, TOX, CHEMICAL OXYGEN DEMAND, PHENOLICS, and various EPA methods (EPA 413.1, EPA 504, EPA 525, EPA 531.1, EPA 547, EPA 548, EPA 549, EPA 632, EPA 8015M, AMBER, JAR, SLEEVE, VIAL, STIC BAG, TOUSS IRON, JIE, RT KIT, 100 Canister).

Numbering Completed By: SAS Date/Time: 10/31/13 2120



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323687-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-9-10/31/13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/31/2013 20:40 <b>Sampling Date:</b> 10/31/2013 07:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): TB-9-10/31/13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323687-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-6 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/31/2013 20:40 <b>Sampling Date:</b> 10/31/2013 08:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-6 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

<b>1323687-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-16-grab <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/31/2013 20:40 <b>Sampling Date:</b> 10/31/2013 11:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-16-grab Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---



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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1323687-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUPE-7-4Q13 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/31/2013 20:40 <b>Sampling Date:</b> 10/31/2013 11:25 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUPE-7-4Q13 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	--

<b>1323687-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-1 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/31/2013 20:40 <b>Sampling Date:</b> 10/31/2013 13:05 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-1 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

<b>1323687-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL-GW <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-5 <b>Sampled By:</b> Blaine Tech of BAT	<b>Receive Date:</b> 10/31/2013 20:40 <b>Sampling Date:</b> 10/31/2013 13:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Aqueous Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-5 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---





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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1323687-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 10/31/2013 20:40
	<b>Project Number:</b>	JPL-GW	<b>Sampling Date:</b> 10/31/2013 14:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-10	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Blaine Tech of BAT	<b>Sample Type:</b> Aqueous
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-10
			Matrix: W
			Sample QC Type (SACode): CS
		Cooler ID:	
1323687-08	<b>COC Number:</b>	---	<b>Receive Date:</b> 10/31/2013 20:40
	<b>Project Number:</b>	JPL-GW	<b>Sampling Date:</b> 10/31/2013 14:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	DUPE-8-4Q13	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Blaine Tech of BAT	<b>Sample Type:</b> Aqueous
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): DUPE-8-4Q13
			Matrix: W
			Sample QC Type (SACode): CS
		Cooler ID:	



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-01	<b>Client Sample Name:</b> JPL-GW, TB-9-10/31/13, 10/31/2013 7:15:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-01	<b>Client Sample Name:</b> JPL-GW, TB-9-10/31/13, 10/31/2013 7:15:00AM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-01	<b>Client Sample Name:</b> JPL-GW, TB-9-10/31/13, 10/31/2013 7:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	109	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 13:40	MGC	MS-V5	1	BWK0021



Battelle MHTS  
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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323687-01	<b>Client Sample Name:</b> JPL-GW, TB-9-10/31/13, 10/31/2013 7:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 13:40	MGC	MS-V5	1	BWK0021



Battelle MHTS  
505 King Ave.  
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Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-02	<b>Client Sample Name:</b> JPL-GW, MW-6, 10/31/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.78</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.27</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>1,1-Dichloroethene</b>	<b>0.29</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.18</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
<b>trans-1,2-Dichloroethene</b>	<b>0.25</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.15</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-02	<b>Client Sample Name:</b> JPL-GW, MW-6, 10/31/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>1.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>4.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-02	<b>Client Sample Name:</b> JPL-GW, MW-6, 10/31/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	105	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 14:03	MGC	MS-V5	1	BWK0021





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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323687-02	<b>Client Sample Name:</b> JPL-GW, MW-6, 10/31/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 14:03	MGC	MS-V5	1	BWK0021



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323687-02	<b>Client Sample Name:</b> JPL-GW, MW-6, 10/31/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	3.3	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/13/13	11/14/13 00:25	TMS	IC6	1	BWK1086

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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323687-02	<b>Client Sample Name:</b> JPL-GW, MW-6, 10/31/2013 8:20:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0014	mg/L	0.0020	0.00070	EPA-7196	0.0010	J	1
Total Recoverable Chromium	39	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/31/13	10/31/13 22:31	LS1	KONE-1	1	BWK0214
2	EPA-200.8	11/05/13	11/06/13 03:08	JSS	PE-EL2	1	BWK0279

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Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-03	<b>Client Sample Name:</b> JPL-GW, MW-16-grab, 10/31/2013 11:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>7.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
<b>Bromoform</b>	<b>2.2</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.27</b>	<b>EPA-524.2</b>	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>6.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>Dibromochloromethane</b>	<b>6.4</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-03	<b>Client Sample Name:</b> JPL-GW, MW-16-grab, 10/31/2013 11:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-03	<b>Client Sample Name:</b> JPL-GW, MW-16-grab, 10/31/2013 11:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	107	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	84.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 14:26	MGC	MS-V5	1	BWK0021



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323687-03	<b>Client Sample Name:</b> JPL-GW, MW-16-grab, 10/31/2013 11:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 14:26	MGC	MS-V5	1	BWK0021



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323687-03	<b>Client Sample Name:</b> JPL-GW, MW-16-grab, 10/31/2013 11:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloride	77	mg/L	0.50	0.067	EPA-300.0	ND		1
Nitrate as N	1.3	mg/L	0.10	0.025	EPA-300.0	ND		1
Sulfate	41	mg/L	1.0	0.18	EPA-300.0	ND		1
Nitrite as N	ND	mg/L	0.050	0.012	EPA-353.2	ND		2
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		3
ortho-Phosphate as P	0.29	mg/L	0.020	0.0040	EPA-365.1	0.0050		4

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/01/13	11/01/13 11:49	LD1	IC2	1	BWK0082
2	EPA-353.2	11/01/13	11/01/13 11:59	TMS	KONE-1	1	BWK0223
3	EPA-314.0	11/13/13	11/13/13 04:54	LD1	IC6	1	BWK1086
4	EPA-365.1	11/01/13	11/01/13 12:20	TMS	KONE-1	1	BWK0224





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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323687-03	<b>Client Sample Name:</b> JPL-GW, MW-16-grab, 10/31/2013 11:15:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.014	mg/L	0.0020	0.00070	EPA-7196	0.0010		1
Total Recoverable Chromium	260	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/31/13	10/31/13 22:31	LS1	KONE-1	1	BWK0214
2	EPA-200.8	11/05/13	11/06/13 03:11	JSS	PE-EL2	1	BWK0279

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Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-04	<b>Client Sample Name:</b> JPL-GW, DUPE-7-4Q13, 10/31/2013 11:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>8.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
<b>Bromoform</b>	<b>2.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.27</b>	<b>EPA-524.2</b>	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>6.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>Dibromochloromethane</b>	<b>6.7</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Columbus, OH 43201

**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-04	<b>Client Sample Name:</b> JPL-GW, DUPE-7-4Q13, 10/31/2013 11:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Columbus, OH 43201

**Reported:** 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-04	<b>Client Sample Name:</b> JPL-GW, DUPE-7-4Q13, 10/31/2013 11:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	84.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/04/13 17:31	MGC	MS-V5	1	BWK0021



Battelle MHTS  
505 King Ave.  
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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323687-04	<b>Client Sample Name:</b> JPL-GW, DUPE-7-4Q13, 10/31/2013 11:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/04/13 17:31	MGC	MS-V5	1	BWK0021



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323687-04	<b>Client Sample Name:</b> JPL-GW, DUPE-7-4Q13, 10/31/2013 11:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/13/13	11/13/13 05:36	LD1	IC6	1	BWK1086

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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323687-04	<b>Client Sample Name:</b> JPL-GW, DUPE-7-4Q13, 10/31/2013 11:25:00AM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.014	mg/L	0.0020	0.00070	EPA-7196	0.0010		1
Total Recoverable Chromium	180	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/31/13	10/31/13 22:31	LS1	KONE-1	1	BWK0214
2	EPA-200.8	11/05/13	11/06/13 03:14	JSS	PE-EL2	1	BWK0279

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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-05	<b>Client Sample Name:</b> JPL-GW, MW-1, 10/31/2013 1:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-05	<b>Client Sample Name:</b> JPL-GW, MW-1, 10/31/2013 1:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-05	<b>Client Sample Name:</b> JPL-GW, MW-1, 10/31/2013 1:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	95.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 11:21	MGC	MS-V5	1	BWK0021



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323687-05	<b>Client Sample Name:</b> JPL-GW, MW-1, 10/31/2013 1:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 11:21	MGC	MS-V5	1	BWK0021



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323687-05	<b>Client Sample Name:</b> JPL-GW, MW-1, 10/31/2013 1:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	ND	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/13/13	11/13/13 03:45	LD1	IC6	1	BWK1086



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323687-05	<b>Client Sample Name:</b> JPL-GW, MW-1, 10/31/2013 1:05:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	0.0010		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/31/13	10/31/13 22:31	LS1	KONE-1	1	BWK0214
2	EPA-200.8	11/05/13	11/06/13 02:33	JSS	PE-EL2	1	BWK0279

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Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-06	<b>Client Sample Name:</b> JPL-GW, MW-5, 10/31/2013 1:50:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.13</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-06	<b>Client Sample Name:</b> JPL-GW, MW-5, 10/31/2013 1:50:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.18</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-06	<b>Client Sample Name:</b> JPL-GW, MW-5, 10/31/2013 1:50:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 15:12	MGC	MS-V5	1	BWK0021





Battelle MHTS  
505 King Ave.  
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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323687-06	<b>Client Sample Name:</b> JPL-GW, MW-5, 10/31/2013 1:50:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 15:12	MGC	MS-V5	1	BWK0021



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323687-06	<b>Client Sample Name:</b> JPL-GW, MW-5, 10/31/2013 1:50:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	1.5	ug/L	4.0	0.81	EPA-314.0	ND	J	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/13/13	11/13/13 05:50	LD1	IC6	1	BWK1086



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323687-06	<b>Client Sample Name:</b> JPL-GW, MW-5, 10/31/2013 1:50:00PM, Blaine Tech							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	ND	mg/L	0.0020	0.00070	EPA-7196	0.0010		1
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/31/13	10/31/13 22:31	LS1	KONE-1	1	BWK0214
2	EPA-200.8	11/05/13	11/06/13 03:17	JSS	PE-EL2	1	BWK0279



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Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-07	<b>Client Sample Name:</b> JPL-GW, MW-10, 10/31/2013 2:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.93</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.21</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.16</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
<b>trans-1,2-Dichloroethene</b>	<b>0.24</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.15</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-07	<b>Client Sample Name:</b> JPL-GW, MW-10, 10/31/2013 2:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.90</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>8.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
Columbus, OH 43201

**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-07	<b>Client Sample Name:</b> JPL-GW, MW-10, 10/31/2013 2:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	106	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 15:35	MGC	MS-V5	1	BWK0021



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323687-07	<b>Client Sample Name:</b> JPL-GW, MW-10, 10/31/2013 2:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 15:35	MGC	MS-V5	1	BWK0021



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323687-07	<b>Client Sample Name:</b> JPL-GW, MW-10, 10/31/2013 2:30:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	6.4	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/13/13	11/14/13 00:38	TMS	IC6	1	BWK1086





Battelle MHTS  
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Columbus, OH 43201

**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323687-07	<b>Client Sample Name:</b> JPL-GW, MW-10, 10/31/2013 2:30:00PM, Blaine Tech
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0014	mg/L	0.0020	0.00070	EPA-7196	0.0010	J	1
Total Recoverable Chromium	2.9	ug/L	3.0	0.50	EPA-200.8	ND	J	2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-7196	10/31/13	10/31/13 22:34	LS1	KONE-1	1	BWK0214
2	EPA-200.8	11/05/13	11/06/13 03:21	JSS	PE-EL2	1	BWK0279

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Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-08	<b>Client Sample Name:</b> JPL-GW, DUPE-8-4Q13, 10/31/2013 2:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromomethane	ND	ug/L	1.0	0.25	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.91</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.44	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.24	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.072	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.062	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.099	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.22</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.11</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.18</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
<b>trans-1,2-Dichloroethene</b>	<b>0.26</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.15</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
1,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.086	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.085	EPA-524.2	ND		1

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Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-08	<b>Client Sample Name:</b> JPL-GW, DUPE-8-4Q13, 10/31/2013 2:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.079	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Isopropylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
p-Isopropyltoluene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.36	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.068	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Tetrachloroethene</b>	<b>0.89</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.13</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>8.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.085</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.24	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Acetone	ND	ug/L	10	4.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.80	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	1.0	0.38	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.4	EPA-524.2	ND		1

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505 King Ave.  
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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 1323687-08	<b>Client Sample Name:</b> JPL-GW, DUPE-8-4Q13, 10/31/2013 2:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Diethyl ether	ND	ug/L	2.0	0.21	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	0.97	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	3.4	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	1.7	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	10	2.5	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	0.47	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	10	2.1	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.43	EPA-524.2	ND	V01,V11	1
Propionitrile	ND	ug/L	20	4.2	EPA-524.2	ND		1
Tetrahydrofuran	ND	ug/L	20	5.2	EPA-524.2	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	108	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 15:57	MGC	MS-V5	1	BWK0021



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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Volatile Organic Analysis (EPA Method 524.2) TICs

<b>BCL Sample ID:</b> 1323687-08	<b>Client Sample Name:</b> JPL-GW, DUPE-8-4Q13, 10/31/2013 2:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
1-Chlorobutane	0	ug/L			EPA-524.2	0		1
1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
Methyl acrylate	0	ug/L			EPA-524.2	0		1
Nitrobenzene	0	ug/L			EPA-524.2	0		1
2-Nitropropane	0	ug/L			EPA-524.2	0		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-524.2	11/01/13	11/01/13 15:57	MGC	MS-V5	1	BWK0021

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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1323687-08	<b>Client Sample Name:</b> JPL-GW, DUPE-8-4Q13, 10/31/2013 2:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Perchlorate	6.4	ug/L	4.0	0.81	EPA-314.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-314.0	11/13/13	11/13/13 06:17	LD1	IC6	1	BWK1086

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**Reported:** 11/15/2013 10:52  
**Project:** JPL- GW Monitoring Wells  
**Project Number:** 4Q13  
**Project Manager:** David Conner

### Metals Analysis

<b>BCL Sample ID:</b> 1323687-08	<b>Client Sample Name:</b> JPL-GW, DUPE-8-4Q13, 10/31/2013 2:40:00PM, Blaine Tech
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Hexavalent Chromium	0.0014	mg/L	0.0020	0.00070	EPA-7196	0.0010	J	1
Total Recoverable Chromium	3.4	ug/L	3.0	0.50	EPA-200.8	ND		2

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-7196	10/31/13	10/31/13 22:34	LS1	KONE-1	1	BWK0214
2	EPA-200.8	11/05/13	11/06/13 03:24	JSS	PE-EL2	1	BWK0279

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Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWK0021</b>						
Benzene	BWK0021-BLK1	ND	ug/L	0.50	0.083	
Bromobenzene	BWK0021-BLK1	ND	ug/L	0.50	0.13	
Bromochloromethane	BWK0021-BLK1	ND	ug/L	0.50	0.24	
Bromodichloromethane	BWK0021-BLK1	ND	ug/L	0.50	0.14	
Bromoform	BWK0021-BLK1	ND	ug/L	0.50	0.27	
Bromomethane	BWK0021-BLK1	ND	ug/L	1.0	0.25	
n-Butylbenzene	BWK0021-BLK1	ND	ug/L	0.50	0.11	
sec-Butylbenzene	BWK0021-BLK1	ND	ug/L	0.50	0.15	
tert-Butylbenzene	BWK0021-BLK1	ND	ug/L	0.50	0.13	
Carbon tetrachloride	BWK0021-BLK1	ND	ug/L	0.50	0.18	
Chlorobenzene	BWK0021-BLK1	ND	ug/L	0.50	0.093	
Chloroethane	BWK0021-BLK1	ND	ug/L	0.50	0.14	
Chloroform	BWK0021-BLK1	ND	ug/L	0.50	0.12	
Chloromethane	BWK0021-BLK1	ND	ug/L	0.50	0.14	
2-Chlorotoluene	BWK0021-BLK1	ND	ug/L	0.50	0.20	
4-Chlorotoluene	BWK0021-BLK1	ND	ug/L	0.50	0.15	
Dibromochloromethane	BWK0021-BLK1	ND	ug/L	0.50	0.13	
1,2-Dibromo-3-chloropropane	BWK0021-BLK1	ND	ug/L	1.0	0.44	
1,2-Dibromoethane	BWK0021-BLK1	ND	ug/L	0.50	0.16	
Dibromomethane	BWK0021-BLK1	ND	ug/L	0.50	0.24	
1,2-Dichlorobenzene	BWK0021-BLK1	ND	ug/L	0.50	0.072	
1,3-Dichlorobenzene	BWK0021-BLK1	ND	ug/L	0.50	0.15	
1,4-Dichlorobenzene	BWK0021-BLK1	ND	ug/L	0.50	0.062	
Dichlorodifluoromethane	BWK0021-BLK1	ND	ug/L	0.50	0.099	
1,1-Dichloroethane	BWK0021-BLK1	ND	ug/L	0.50	0.11	
1,2-Dichloroethane	BWK0021-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	BWK0021-BLK1	ND	ug/L	0.50	0.18	
cis-1,2-Dichloroethene	BWK0021-BLK1	ND	ug/L	0.50	0.085	
trans-1,2-Dichloroethene	BWK0021-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloropropane	BWK0021-BLK1	ND	ug/L	0.50	0.13	
1,3-Dichloropropane	BWK0021-BLK1	ND	ug/L	0.50	0.086	
2,2-Dichloropropane	BWK0021-BLK1	ND	ug/L	0.50	0.13	
1,1-Dichloropropene	BWK0021-BLK1	ND	ug/L	0.50	0.085	
cis-1,3-Dichloropropene	BWK0021-BLK1	ND	ug/L	0.50	0.14	

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Project: JPL- GW Monitoring Wells  
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### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWK0021</b>						
trans-1,3-Dichloropropene	BWK0021-BLK1	ND	ug/L	0.50	0.079	
Ethylbenzene	BWK0021-BLK1	ND	ug/L	0.50	0.098	
Hexachlorobutadiene	BWK0021-BLK1	ND	ug/L	0.50	0.17	
Isopropylbenzene	BWK0021-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	BWK0021-BLK1	ND	ug/L	0.50	0.12	
Methylene chloride	BWK0021-BLK1	ND	ug/L	0.50	0.48	
Methyl t-butyl ether	BWK0021-BLK1	ND	ug/L	0.50	0.11	
Naphthalene	BWK0021-BLK1	ND	ug/L	0.50	0.36	
n-Propylbenzene	BWK0021-BLK1	ND	ug/L	0.50	0.11	
Styrene	BWK0021-BLK1	ND	ug/L	0.50	0.068	
1,1,1,2-Tetrachloroethane	BWK0021-BLK1	ND	ug/L	0.50	0.18	
1,1,1,2,2-Tetrachloroethane	BWK0021-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethane	BWK0021-BLK1	ND	ug/L	0.50	0.13	
Toluene	BWK0021-BLK1	ND	ug/L	0.50	0.093	
1,2,3-Trichlorobenzene	BWK0021-BLK1	ND	ug/L	0.50	0.16	
1,2,4-Trichlorobenzene	BWK0021-BLK1	ND	ug/L	0.50	0.19	
1,1,1-Trichloroethane	BWK0021-BLK1	ND	ug/L	0.50	0.11	
1,1,2-Trichloroethane	BWK0021-BLK1	ND	ug/L	0.50	0.16	
Trichloroethene	BWK0021-BLK1	ND	ug/L	0.50	0.085	
Trichlorofluoromethane	BWK0021-BLK1	ND	ug/L	0.50	0.13	
1,2,3-Trichloropropane	BWK0021-BLK1	ND	ug/L	1.0	0.24	
1,1,2-Trichloro-1,2,2-trifluoroethane	BWK0021-BLK1	ND	ug/L	0.50	0.15	
1,2,4-Trimethylbenzene	BWK0021-BLK1	ND	ug/L	0.50	0.12	
1,3,5-Trimethylbenzene	BWK0021-BLK1	ND	ug/L	0.50	0.12	
Vinyl chloride	BWK0021-BLK1	ND	ug/L	0.50	0.12	
Acetone	BWK0021-BLK1	ND	ug/L	10	4.6	
Acrylonitrile	BWK0021-BLK1	ND	ug/L	5.0	1.2	
Allyl chloride	BWK0021-BLK1	ND	ug/L	5.0	0.80	
t-Amyl Methyl ether	BWK0021-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BWK0021-BLK1	ND	ug/L	10	9.4	
Carbon disulfide	BWK0021-BLK1	ND	ug/L	1.0	0.38	
trans-1,4-Dichloro-2-butene	BWK0021-BLK1	ND	ug/L	5.0	1.4	
Diethyl ether	BWK0021-BLK1	ND	ug/L	2.0	0.21	
Ethyl methacrylate	BWK0021-BLK1	ND	ug/L	4.0	0.97	

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**Reported:** 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWK0021</b>						
Ethyl t-butyl ether	BWK0021-BLK1	ND	ug/L	0.50	0.18	
Hexachloroethane	BWK0021-BLK1	ND	ug/L	0.50	0.16	
2-Hexanone	BWK0021-BLK1	ND	ug/L	10	3.4	
Methacrylonitrile	BWK0021-BLK1	ND	ug/L	10	1.7	
Methyl ethyl ketone	BWK0021-BLK1	ND	ug/L	10	2.5	
Methyl iodide	BWK0021-BLK1	ND	ug/L	2.0	0.47	
Methyl isobutyl ketone	BWK0021-BLK1	ND	ug/L	10	2.1	
Methyl methacrylate	BWK0021-BLK1	ND	ug/L	5.0	1.5	
Pentachloroethane	BWK0021-BLK1	ND	ug/L	2.0	0.43	
Propionitrile	BWK0021-BLK1	ND	ug/L	20	4.2	
Tetrahydrofuran	BWK0021-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	BWK0021-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BWK0021-BLK1	ND	ug/L	0.50	0.082	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>BWK0021-BLK1</b>	<b>108</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>BWK0021-BLK1</b>	<b>99.1</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>BWK0021-BLK1</b>	<b>96.4</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		



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Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWK0021</b>										
Benzene	BWK0021-BS1	LCS	27.500	25.000	ug/L	110		70 - 130		
Bromodichloromethane	BWK0021-BS1	LCS	28.450	25.000	ug/L	114		70 - 130		
Chlorobenzene	BWK0021-BS1	LCS	26.230	25.000	ug/L	105		70 - 130		
Chloroethane	BWK0021-BS1	LCS	27.360	25.000	ug/L	109		70 - 130		
1,4-Dichlorobenzene	BWK0021-BS1	LCS	26.310	25.000	ug/L	105		70 - 130		
1,1-Dichloroethane	BWK0021-BS1	LCS	27.720	25.000	ug/L	111		70 - 130		
1,1-Dichloroethene	BWK0021-BS1	LCS	28.060	25.000	ug/L	112		70 - 130		
Toluene	BWK0021-BS1	LCS	27.010	25.000	ug/L	108		70 - 130		
Trichloroethene	BWK0021-BS1	LCS	27.780	25.000	ug/L	111		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BWK0021-BS1	LCS	10.480	10.000	ug/L	105		75 - 125		
Toluene-d8 (Surrogate)	BWK0021-BS1	LCS	9.8200	10.000	ug/L	98.2		80 - 120		
4-Bromofluorobenzene (Surrogate)	BWK0021-BS1	LCS	9.9600	10.000	ug/L	99.6		80 - 120		



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Reported: 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
Project Number: 4Q13  
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### Volatile Organic Analysis (EPA Method 524.2)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery		Lab Quals
								RPD	Percent	
<b>QC Batch ID: BWK0021</b>										
Used client sample: Y - Description: MW-1, 10/31/2013 13:05										
Benzene	MS	1323687-05	ND	25.470	25.000	ug/L		102		70 - 130
	MSD	1323687-05	ND	27.300	25.000	ug/L	6.9	109	20	70 - 130
Bromodichloromethane	MS	1323687-05	ND	27.580	25.000	ug/L		110		70 - 130
	MSD	1323687-05	ND	28.570	25.000	ug/L	3.5	114	20	70 - 130
Chlorobenzene	MS	1323687-05	ND	25.360	25.000	ug/L		101		70 - 130
	MSD	1323687-05	ND	26.730	25.000	ug/L	5.3	107	20	70 - 130
Chloroethane	MS	1323687-05	ND	25.370	25.000	ug/L		101		70 - 130
	MSD	1323687-05	ND	26.910	25.000	ug/L	5.9	108	20	70 - 130
1,4-Dichlorobenzene	MS	1323687-05	ND	25.720	25.000	ug/L		103		70 - 130
	MSD	1323687-05	ND	23.970	25.000	ug/L	7.0	95.9	20	70 - 130
1,1-Dichloroethane	MS	1323687-05	ND	25.950	25.000	ug/L		104		70 - 130
	MSD	1323687-05	ND	27.760	25.000	ug/L	6.7	111	20	70 - 130
1,1-Dichloroethene	MS	1323687-05	ND	26.390	25.000	ug/L		106		70 - 130
	MSD	1323687-05	ND	27.370	25.000	ug/L	3.6	109	20	70 - 130
Toluene	MS	1323687-05	ND	26.130	25.000	ug/L		105		70 - 130
	MSD	1323687-05	ND	27.330	25.000	ug/L	4.5	109	20	70 - 130
Trichloroethene	MS	1323687-05	ND	26.040	25.000	ug/L		104		70 - 130
	MSD	1323687-05	ND	27.290	25.000	ug/L	4.7	109	20	70 - 130
1,2-Dichloroethane-d4 (Surrogate)	MS	1323687-05	ND	10.330	10.000	ug/L		103		75 - 125
	MSD	1323687-05	ND	10.470	10.000	ug/L	1.3	105		75 - 125
Toluene-d8 (Surrogate)	MS	1323687-05	ND	9.8700	10.000	ug/L		98.7		80 - 120
	MSD	1323687-05	ND	10.040	10.000	ug/L	1.7	100		80 - 120
4-Bromofluorobenzene (Surrogate)	MS	1323687-05	ND	9.7900	10.000	ug/L		97.9		80 - 120
	MSD	1323687-05	ND	9.7800	10.000	ug/L	0.1	97.8		80 - 120

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## Volatile Organic Analysis (EPA Method 524.2) TICs

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWK0021</b>						
Chloroacetonitrile	BWK0021-BLK1	0	ug/L			
1-Chlorobutane	BWK0021-BLK1	0	ug/L			
1,1-Dichloropropanone	BWK0021-BLK1	0	ug/L			
Methyl acrylate	BWK0021-BLK1	0	ug/L			
Nitrobenzene	BWK0021-BLK1	0	ug/L			
2-Nitropropane	BWK0021-BLK1	0	ug/L			



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### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWK0082</b>						
Chloride	BWK0082-BLK1	ND	mg/L	0.50	0.067	
Nitrate as N	BWK0082-BLK1	ND	mg/L	0.10	0.025	
Sulfate	BWK0082-BLK1	ND	mg/L	1.0	0.18	
<b>QC Batch ID: BWK0223</b>						
Nitrite as N	BWK0223-BLK1	ND	mg/L	0.050	0.0013	
<b>QC Batch ID: BWK0224</b>						
ortho-Phosphate as P	BWK0224-BLK1	0.0049970	mg/L	0.020	0.0040	J
<b>QC Batch ID: BWK1086</b>						
Perchlorate	BWK1086-BLK1	ND	ug/L	4.0	0.81	



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

**Reported:** 11/15/2013 10:52  
Project: JPL- GW Monitoring Wells  
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Project Manager: David Conner

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWK0082</b>										
Chloride	BWK0082-BS1	LCS	50.306	50.000	mg/L	101		90 - 110		
Nitrate as N	BWK0082-BS1	LCS	4.9910	5.0000	mg/L	99.8		90 - 110		
Sulfate	BWK0082-BS1	LCS	100.88	100.00	mg/L	101		90 - 110		
<b>QC Batch ID: BWK0223</b>										
Nitrite as N	BWK0223-BS1	LCS	0.45894	0.50000	mg/L	91.8		90 - 110		
<b>QC Batch ID: BWK0224</b>										
ortho-Phosphate as P	BWK0224-BS1	LCS	0.21081	0.20000	mg/L	105		90 - 110		
<b>QC Batch ID: BWK1086</b>										
Perchlorate	BWK1086-BS1	LCS	10.566	10.000	ug/L	106		85 - 115		



Battelle MHTS  
505 King Ave.  
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Reported: 11/15/2013 10:52  
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### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: BWK0082</b>		Used client sample: N								
Chloride	DUP	1323707-02	259.81	255.30		mg/L	1.8		10	
	MS	1323707-02	259.81	357.36	101.01	mg/L		96.6		80 - 120
	MSD	1323707-02	259.81	354.75	101.01	mg/L	0.7	94.0	10	80 - 120
Nitrate as N	DUP	<b>1323707-02</b>	<b>0.27400</b>	<b>0.15800</b>		mg/L	<b>53.7</b>		<b>10</b>	<b>J,A02</b>
	MS	<b>1323707-02</b>	<b>0.27400</b>	<b>9.9232</b>	<b>10.101</b>	mg/L		<b>95.5</b>		<b>80 - 120</b>
	MSD	<b>1323707-02</b>	<b>0.27400</b>	<b>10.105</b>	<b>10.101</b>	mg/L	<b>1.8</b>	<b>97.3</b>	<b>10</b>	<b>80 - 120</b>
Sulfate	DUP	1323707-02	278.82	281.76		mg/L	1.0		10	
	MS	1323707-02	278.82	485.39	202.02	mg/L		102		80 - 120
	MSD	1323707-02	278.82	483.94	202.02	mg/L	0.3	102	10	80 - 120
<b>QC Batch ID: BWK0223</b>		Used client sample: Y - Description: MW-16-grab, 10/31/2013 11:15								
Nitrite as N	DUP	<b>1323687-03</b>	<b>ND</b>	<b>ND</b>		mg/L			<b>10</b>	
	MS	<b>1323687-03</b>	<b>ND</b>	<b>2.0740</b>	<b>2.6316</b>	mg/L		<b>78.8</b>		<b>Q03</b>
	MSD	<b>1323687-03</b>	<b>ND</b>	<b>2.0636</b>	<b>2.6316</b>	mg/L	<b>0.5</b>	<b>78.4</b>	<b>10</b>	<b>90 - 110</b>
<b>QC Batch ID: BWK0224</b>		Used client sample: Y - Description: MW-16-grab, 10/31/2013 11:15								
ortho-Phosphate as P	DUP	1323687-03	0.28839	0.28802		mg/L	0.1		10	
	MS	1323687-03	0.28839	0.49738	0.21053	mg/L		99.3		90 - 110
	MSD	1323687-03	0.28839	0.49789	0.21053	mg/L	0.1	99.5	10	90 - 110
<b>QC Batch ID: BWK1086</b>		Used client sample: Y - Description: MW-1, 10/31/2013 13:05								
Perchlorate	DUP	1323687-05	ND	ND		ug/L			15	
	MS	1323687-05	ND	10.093	10.101	ug/L		99.9		80 - 120
	MSD	1323687-05	ND	10.365	10.101	ug/L	2.7	103	15	80 - 120

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### Metals Analysis

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: BWK0214</b>						
Hexavalent Chromium	BWK0214-BLK1	0.0010440	mg/L	0.0020	0.00070	J
<b>QC Batch ID: BWK0279</b>						
Total Recoverable Chromium	BWK0279-BLK1	ND	ug/L	3.0	0.50	



Battelle MHTS  
505 King Ave.  
Columbus, OH 43201

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### Metals Analysis

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: BWK0214</b>										
Hexavalent Chromium	BWK0214-BS1	LCS	0.049231	0.050000	mg/L	98.5		85	115	
<b>QC Batch ID: BWK0279</b>										
Total Recoverable Chromium	BWK0279-BS1	LCS	40.198	40.000	ug/L	100		85	115	



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### Metals Analysis

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: BWK0214</b>		Used client sample: Y - Description: MW-1, 10/31/2013 13:05								
Hexavalent Chromium	DUP	1323687-05	ND	ND		mg/L				10
	MS	1323687-05	ND	0.051748	0.052632	mg/L		98.3		85 - 115
	MSD	1323687-05	ND	0.051768	0.052632	mg/L	0.0	98.4	10	85 - 115
<b>QC Batch ID: BWK0279</b>		Used client sample: Y - Description: MW-1, 10/31/2013 13:05								
Total Recoverable Chromium	DUP	1323687-05	ND	ND		ug/L				20
	MS	1323687-05	ND	37.831	40.000	ug/L		94.6		70 - 130
	MSD	1323687-05	ND	37.905	40.000	ug/L	0.2	94.8	20	70 - 130



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**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected at or above the reporting limit
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference
- A02 The difference between duplicate readings is less than the PQL.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.
- V11 The Continuing Calibration Verification (CCV) recovery is not within established control limits.