

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

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This attachment contains the laboratory analytical reports prepared by Pace Analytical Environmental Sciences (formerly BC Laboratories, Inc.), of Bakersfield, California.



Date of Report: 05/13/2022

David Conner

Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

Client Project: 2Q22  
BCL Project: JPL- GW Monitoring Wells-CLP  
BCL Work Order: 2209623  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 4/25/2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers  
Client Service Rep

Stuart Buttram  
Operations Manager

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

*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. Pace Analytical assumes no responsibility for report alteration, separation, detachment or third party interpretation.

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# Chain of Custody Form

**BC Laboratories, Inc.**

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22-09623

<b>Report To:</b> Client: Tide/water, Inc. Attn: David Conner Street Address: 3761 Allucks Drive City: Powell State: OH Zip: 43065 Phone: (626) 288-5715 Fax: (614) 792-2897 Email Address: david.conner@tideh2o.net		<b>Project Description:</b> JPL-GW Monitoring Project Code: 2Q22 Sampler(s): Blaine Tech		<b>Billing</b> Client: Tide/water Attn: David Conner Address: 3761 Allucks Drive City: Powell State: OH Zip: 43065 Are there any tests with holding times? less than or equal to 48 hours? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO *Standard Turnaround = 10	
<b>Analysis Requested</b> VOCs EPA 524.2 TRM: Cl, Lead, Arsenic Perchlorate, TDS, PH Hexavalent Cr 6 (mg/L) Cl, NO3, NO2, SO4 Cu, Mg, K, Fe (ppm) Orthophosphate 365.1 Alkalinity, Bicarbonate 1/4 Dioxide, NDMA Lead Level 1, 2, 3 TCP		<b>Sample #</b> Sample Description Date (M/D) Time Matrix*		<b>Notes</b>	
-1	TB-1-048522	04/25/22	08:50	GW	
-2	MW-23-5		09:20	GW	
-3	MW-23-4		10:00	GW	
-4	MW-23-3		10:15	GW	
-5	MW-23-2		10:30	GW	
-6	DUP-1-2622		11:30	GW	
-7	MW-23-1		12:45	GW	
-8	MW-24-4		13:15	GW	
-9	MW-24-5		14:00	GW	
-10	MW-24-3		14:30	GW	
-11	MW-24-2			GW	Level IV MS/MSCL

**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  Geotracer 5 File (CA Default)  Geotracer 2 File Other (Specify) \_\_\_\_\_  
 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)

**Cost Center:**  
 1. Relinquished By: \_\_\_\_\_ Date: 04/25/22 Time: 17:15  
 2. Relinquished By: \_\_\_\_\_ Date: 4-25-22 Time: 20:00  
 3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**BC Laboratories, Inc.** Chain of Custody Form **BC Labs**

Page 2 of 2

<b>Project Description:</b> * JPL-GW Monitoring <b>Client:</b> * Tidewater, Inc. <b>Attn:</b> * David Conner <b>Street Address:</b> * 3761 Attucks Drive <b>City:</b> * Powell <b>State:</b> * OH <b>Zip:</b> * 43065 <b>Phone:</b> * 626 1 298 - 5715 <b>Fax:</b> 614 792 - 2887 <b>Email Address:</b> david.conner@tlideh2o.net <b>Submission #:</b> 17-09623		<b>Project Code:</b> * 2022 <b>Sampler (s):</b> * Blaine Tech																																																																		
<b>Billing:</b> <b>Client:</b> * Tidewater <b>Attn:</b> * David Conner <b>Address:</b> * 3761 Attucks Drive <b>City:</b> * Powell <b>State:</b> * OH <b>Zip:</b> * 43065 Are there any tests with holding times? less than or equal to 48 hours? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> NO *Standard Turnaround = 10		<b>Analysis Requested:</b> Orthophosphate 365.1 Ca, Mg, K, Na, Fe (conc) Cl, NO3, NO2, SO4 Hexavalent Cr- 218.6 (ng/L) Perchlorate TRM: Cl, Lead, Arsenic VOCs EPA 524.2																																																																		
<b>Sample #</b> -12 MW-24-1 -13 EB-1-042522 -14 SB-1-042522		<b>Date</b> 04/25/22 1530 1650 1700																																																																		
<b>Sample Description</b> CHK BY: [Signature] DISTRIBUTION: [Signature] SUBOUT: [Signature]		<b>Matrix*</b> GW GW GW																																																																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Analysis Requested</th> <th>Matrix*</th> <th>Date</th> <th>Time</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>Orthophosphate 365.1</td> <td>GW</td> <td>04/25/22</td> <td>1530</td> <td>X</td> </tr> <tr> <td>Ca, Mg, K, Na, Fe (conc)</td> <td>GW</td> <td>04/25/22</td> <td>1650</td> <td>X</td> </tr> <tr> <td>Cl, NO3, NO2, SO4</td> <td>GW</td> <td>04/25/22</td> <td>1700</td> <td>X</td> </tr> <tr> <td>Hexavalent Cr- 218.6 (ng/L)</td> <td>GW</td> <td>04/25/22</td> <td>1530</td> <td>X</td> </tr> <tr> <td>Perchlorate</td> <td>GW</td> <td>04/25/22</td> <td>1650</td> <td>X</td> </tr> <tr> <td>TRM: Cl, Lead, Arsenic</td> <td>GW</td> <td>04/25/22</td> <td>1700</td> <td>X</td> </tr> <tr> <td>VOCs EPA 524.2</td> <td>GW</td> <td>04/25/22</td> <td>1530</td> <td>X</td> </tr> <tr> <td>DO</td> <td>GW</td> <td>04/25/22</td> <td>1530</td> <td>X</td> </tr> <tr> <td>Cl<sub>2</sub></td> <td>GW</td> <td>04/25/22</td> <td>1530</td> <td>X</td> </tr> <tr> <td>BCD</td> <td>GW</td> <td>04/25/22</td> <td>1530</td> <td>X</td> </tr> <tr> <td>MBAS</td> <td>GW</td> <td>04/25/22</td> <td>1530</td> <td>X</td> </tr> <tr> <td>DOT</td> <td>GW</td> <td>04/25/22</td> <td>1530</td> <td>X</td> </tr> </tbody> </table>				Analysis Requested	Matrix*	Date	Time	Notes	Orthophosphate 365.1	GW	04/25/22	1530	X	Ca, Mg, K, Na, Fe (conc)	GW	04/25/22	1650	X	Cl, NO3, NO2, SO4	GW	04/25/22	1700	X	Hexavalent Cr- 218.6 (ng/L)	GW	04/25/22	1530	X	Perchlorate	GW	04/25/22	1650	X	TRM: Cl, Lead, Arsenic	GW	04/25/22	1700	X	VOCs EPA 524.2	GW	04/25/22	1530	X	DO	GW	04/25/22	1530	X	Cl <sub>2</sub>	GW	04/25/22	1530	X	BCD	GW	04/25/22	1530	X	MBAS	GW	04/25/22	1530	X	DOT	GW	04/25/22	1530	X
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<b>Lab TAT Approval:</b> _____ *Additional Charges May Apply																																																																				
<b>Comments:</b> 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)		<b>Global ID:</b> _____ <b>1. Relinquished By:</b> [Signature] <b>Date:</b> 04/25/22 <b>Time:</b> 1715 <b>2. Relinquished By:</b> [Signature] <b>Date:</b> 4-25-22 <b>Time:</b> 20:00 <b>3. Relinquished By:</b> [Signature] <b>Date:</b> 4/25/22 <b>Time:</b> 20:00																																																																		
<b>MBU site</b> <input type="checkbox"/> MBU site <input type="checkbox"/> CXV RCRA <input type="checkbox"/> Geotracker 5 File (CA Default) <input type="checkbox"/> Geotracker 2 File <input type="checkbox"/> Other (Specify) _____		<b>Cost Center:</b> <b>1. Relinquished By:</b> [Signature] <b>Date:</b> 04/25/22 <b>Time:</b> 1715 <b>2. Relinquished By:</b> [Signature] <b>Date:</b> 4-25-22 <b>Time:</b> 20:00 <b>3. Relinquished By:</b> [Signature] <b>Date:</b> 4/25/22 <b>Time:</b> 20:00																																																																		

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

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BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>1</u> of <u>2</u>	
Submission #: <u>22-09623</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> (W) S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments:					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments:					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.92</u> Container: <u>PE</u> Thermometer ID: <u>244</u>		Date/Time <u>4/25/22</u>	
		Temperature: (A) <u>0.4</u> °C / (C) <u>0.2</u> °C		Analyst Init <u>ZEL 200</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		D	D	D	D	D	D	D	D	P
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>		E	E	E	E	E	E	E	E	E
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz		F	F	F	F	F	F	F	F	F
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		A-C	A-C	A-C	A-C	A-C	A-C	A-C	A-C	A-C
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/608/3/801A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: ZEL Date/Time: 4/25/22 2055 Rev 22 04/13/21  
 A = Actual / C = Corrected [S:\WP\Doc\Word\PerfectLAB\_DOCIFORMS\BAWRECrv 20]



BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>2</u> of <u>2</u>							
Submission #: <u>22-09623</u>											
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> (W) S						
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____											
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____											
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>											
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>294</u>		Date/Time: <u>4/25/22</u>							
		Temperature: (A) <u>0.3</u> °C / (C) <u>0.1</u> °C		Analyst Init: <u>ZCL 200</u>							
SAMPLE CONTAINERS		SAMPLE NUMBERS									
		1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		G,H	D	D	D						
4oz / 8oz / 16oz PE UNPRES											
3oz Cr <sup>6</sup>		F, J	E	E	E						
QT INORGANIC CHEMICAL METALS											
INORGANIC CHEMICAL METALS 4oz / 8oz (16oz)		K, L	F	E	F						
PT CYANIDE											
PT NITROGEN FORMS											
PT TOTAL SULFIDE											
3oz. NITRATE / NITRITE											
PT TOTAL ORGANIC CARBON											
PT CHEMICAL OXYGEN DEMAND											
P4A PHENOLICS											
40ml VOA VIAL TRAVEL BLANK											
40ml VOA VIAL		A-F	A-C	A-C	A-C						
QT EPA 1664B											
PT ODOR											
RADIOLOGICAL											
BACTERIOLOGICAL											
40 ml VOA VIAL- 504											
QT EPA 505/608.3/8081A											
QT EPA 515.1/8151A											
QT EPA 525.2											
QT EPA 525.2 TRAVEL BLANK											
40ml EPA 547											
40ml EPA 531.1											
3oz EPA 548.1											
QT EPA 549.2											
QT EPA 8015M											
QT EPA 8170C											
3oz / 16oz / 32oz AMBER			G, H								
3oz / 16oz / 32oz JAR											
SOIL SLEEVE											
PCB VIAL											
PLASTIC BAG											
TEDLAR BAG											
FERROUS IRON											
ENCORE											
SMART KIT											
SUMMA CANISTER											

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: ZCL Date/Time: 4/25/22 2055  
 A = Actual / C = Corrected

Rev 22 04/13/21

[S:\MP\DeclWordPerfect\LAB\_DOC\SI\FORMS\AMR\REV 22]



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
<b>2209623-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL- GW Monitoring Wells-CLP <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-1-042522 <b>Sampled By:</b> BTST		<b>Receive Date:</b> 04/25/2022 20:00 <b>Sampling Date:</b> 04/25/2022 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-1-042522 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
<b>2209623-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL- GW Monitoring Wells-CLP <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-23-5 <b>Sampled By:</b> BTST		<b>Receive Date:</b> 04/25/2022 20:00 <b>Sampling Date:</b> 04/25/2022 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-23-5 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
<b>2209623-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL- GW Monitoring Wells-CLP <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-23-4 <b>Sampled By:</b> BTST		<b>Receive Date:</b> 04/25/2022 20:00 <b>Sampling Date:</b> 04/25/2022 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-23-4 Matrix: WG Sample QC Type (SACode): CS Cooler ID:

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>2209623-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL- GW Monitoring Wells-CLP <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-23-3 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 04/25/2022 20:00 <b>Sampling Date:</b> 04/25/2022 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-23-3 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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<b>2209623-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL- GW Monitoring Wells-CLP <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-23-2 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 04/25/2022 20:00 <b>Sampling Date:</b> 04/25/2022 10:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-23-2 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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<b>2209623-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL- GW Monitoring Wells-CLP <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUP-1-2Q22 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 04/25/2022 20:00 <b>Sampling Date:</b> 04/25/2022 10:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUP-1-2022 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
2209623-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/25/2022 20:00
	<b>Project Number:</b>	JPL- GW Monitoring Wells-CLP	<b>Sampling Date:</b> 04/25/2022 11:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-23-1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Water
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-23-1
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2209623-08	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/25/2022 20:00
	<b>Project Number:</b>	JPL- GW Monitoring Wells-CLP	<b>Sampling Date:</b> 04/25/2022 12:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-24-4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Water
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-24-4
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2209623-09	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/25/2022 20:00
	<b>Project Number:</b>	JPL- GW Monitoring Wells-CLP	<b>Sampling Date:</b> 04/25/2022 13:15
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-24-5	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Water
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-24-5
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	

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**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
2209623-10	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/25/2022 20:00	
	<b>Project Number:</b>	JPL- GW Monitoring Wells-CLP	<b>Sampling Date:</b>	04/25/2022 14:00	
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---	
	<b>Sampling Point:</b>	MW-24-3	<b>Lab Matrix:</b>	Water	
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Water	
			Delivery Work Order:		
			Global ID:	0000000000	
			Location ID (FieldPoint):	MW-24-3	
			Matrix:	WG	
			Sample QC Type (SACode):	CS	
		Cooler ID:			
2209623-11	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/25/2022 20:00	
	<b>Project Number:</b>	JPL- GW Monitoring Wells-CLP	<b>Sampling Date:</b>	04/25/2022 14:30	
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---	
	<b>Sampling Point:</b>	MW-24-2	<b>Lab Matrix:</b>	Water	
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Water	
			Delivery Work Order:		
			Global ID:	0000000000	
			Location ID (FieldPoint):	MW-24-2	
			Matrix:	WG	
			Sample QC Type (SACode):	CS	
		Cooler ID:			
2209623-12	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/25/2022 20:00	
	<b>Project Number:</b>	JPL- GW Monitoring Wells-CLP	<b>Sampling Date:</b>	04/25/2022 15:30	
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---	
	<b>Sampling Point:</b>	MW-24-1	<b>Lab Matrix:</b>	Water	
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Water	
			Delivery Work Order:		
			Global ID:	0000000000	
			Location ID (FieldPoint):	MW-24-1	
			Matrix:	WG	
			Sample QC Type (SACode):	CS	
		Cooler ID:			

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**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>2209623-13</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL- GW Monitoring Wells-CLP <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-1-042522 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 04/25/2022 20:00 <b>Sampling Date:</b> 04/25/2022 16:50 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-1-042522 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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<b>2209623-14</b>	<b>COC Number:</b> --- <b>Project Number:</b> JPL- GW Monitoring Wells-CLP <b>Sampling Location:</b> --- <b>Sampling Point:</b> SB-1-042522 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 04/25/2022 20:00 <b>Sampling Date:</b> 04/25/2022 17:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): SB-1-042522 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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Tidewater Inc. - Powell  
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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-01		Client Sample Name: JPL- GW Monitoring Wells-CLP, TB-1-042522, 4/25/2022 7:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-01		Client Sample Name: JPL- GW Monitoring Wells-CLP, TB-1-042522, 4/25/2022 7:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209623-01	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, TB-1-042522, 4/25/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	93.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 10:12	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-01	Client Sample Name: JPL- GW Monitoring Wells-CLP, TB-1-042522, 4/25/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	10:12	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-02	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-23-5, 4/25/2022 8:50:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-02		Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-5, 4/25/2022 8:50:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.24</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	J	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-02	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-5, 4/25/2022 8:50:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 10:36	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-02	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-5, 4/25/2022 8:50:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	10:36	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209623-02	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, MW-23-5, 4/25/2022 8:50:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/27/22 21:53	ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-02	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-23-5, 4/25/2022 8:50:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	3.8	mg/L	0.10	0.014	EPA-200.7	0.024		1
Total Recoverable Magnesium	0.31	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	67	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	1.3	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	120	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	29	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	150	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	9.0	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	0.026	mg/L	0.10	0.024	EPA-300.0	ND	J	3
Sulfate	10	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	9.40	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	250	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time	Date/Time				Batch ID	Prep Method
1	EPA-200.7	04/27/22 18:25	05/03/22 18:28		JRG	PE-OP4	1	B138117	EPA 200.2
2	SM-2320B	04/27/22 10:30	04/27/22 17:49		RML	MET-1	1	B135818	No Prep
3	EPA-300.0	04/26/22 00:00	04/26/22 02:49		SAV	IC1	1	B137915	No Prep
4	EPA-150.1	04/27/22 10:30	04/27/22 17:49		RML	MET-1	1	B135818	No Prep
5	EPA-160.1	04/27/22 15:30	04/27/22 15:30		CAD	MANUAL	2	B138084	No Prep
6	EPA-353.2	04/26/22 00:31	04/26/22 00:32		KB1	KONE-1	1	B137926	No Prep
7	EPA-314.0	05/03/22 14:00	05/03/22 16:15		KB1	IC6	1	B138708	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209623-02	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-5, 4/25/2022 8:50:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00014	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	2.4	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	140	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	0.20	ug/L	1.0	0.10	EPA-200.8	ND	J	2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 09:29		SAV	IC-4	1	B138681	No Prep
2	EPA-200.8	04/27/22 09:50	04/27/22 15:37		AK1	PE-EL4	1	B138027	EPA 200.2
3	EPA-200.7	04/27/22 18:25	05/03/22 18:28		JRG	PE-OP4	1	B138117	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-03		Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-4, 4/25/2022 9:20:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-03		Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-4, 4/25/2022 9:20:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-03	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-4, 4/25/2022 9:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 11:00	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-03	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-4, 4/25/2022 9:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	11:00	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number

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**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209623-03	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, MW-23-4, 4/25/2022 9:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/27/22 22:19	ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-03	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-23-4, 4/25/2022 9:20:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	39	mg/L	0.10	0.014	EPA-200.7	0.024		1
Total Recoverable Magnesium	12	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	27	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	1.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	170	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	140	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	26	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	7.6	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	17	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	8.13	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	290	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	1.9	ug/L	2.0	0.81	EPA-314.0	ND	J	7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/27/22 18:25	05/03/22 18:31		JRG	PE-OP4	1	B138117	EPA 200.2
2	SM-2320B	04/27/22 10:30	04/27/22 18:00		RML	MET-1	1	B135818	No Prep
3	EPA-300.0	04/26/22 00:00	04/26/22 03:10		SAV	IC1	1	B137915	No Prep
4	EPA-150.1	04/27/22 10:30	04/27/22 18:00		RML	MET-1	1	B135818	No Prep
5	EPA-160.1	04/27/22 15:30	04/27/22 15:30		CAD	MANUAL	2	B138084	No Prep
6	EPA-353.2	04/26/22 00:31	04/26/22 00:32		KB1	KONE-1	1	B137926	No Prep
7	EPA-314.0	05/03/22 14:00	05/03/22 16:30		KB1	IC6	1	B138708	No Prep

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209623-03	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-4, 4/25/2022 9:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0042	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.7	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	3.5	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 09:39		SAV	IC-4	1	B138681	No Prep
2	EPA-200.8	04/27/22 09:50	04/27/22 15:39		AK1	PE-EL4	1	B138027	EPA 200.2
3	EPA-200.7	04/27/22 18:25	05/03/22 18:31		JRG	PE-OP4	1	B138117	EPA 200.2

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-04	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-23-3, 4/25/2022 10:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-04	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-23-3, 4/25/2022 10:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-04	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-3, 4/25/2022 10:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 11:25	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-04	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-3, 4/25/2022 10:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	11:25	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209623-04	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, MW-23-3, 4/25/2022 10:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/27/22 22:46	ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-04							
Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-23-3, 4/25/2022 10:00:00AM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	54	mg/L	0.10	0.014	EPA-200.7	0.024		1
Total Recoverable Magnesium	17	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	30	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	1.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	180	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	150	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	47	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	10	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	45	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	8.07	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	380	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	3.2	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time	Date/Time				Batch ID	Prep Method
1	EPA-200.7	04/27/22 18:25	05/03/22 18:33	JRG	PE-OP4	1	B138117	EPA 200.2	
2	SM-2320B	04/27/22 10:30	04/27/22 18:09	RML	MET-1	1	B135818	No Prep	
3	EPA-300.0	04/26/22 00:00	04/26/22 03:31	SAV	IC1	1	B137915	No Prep	
4	EPA-150.1	04/27/22 10:30	04/27/22 18:09	RML	MET-1	1	B135818	No Prep	
5	EPA-160.1	04/27/22 15:30	04/27/22 15:30	CAD	MANUAL	2	B138084	No Prep	
6	EPA-353.2	04/26/22 00:31	04/26/22 00:32	KB1	KONE-1	1	B137926	No Prep	
7	EPA-314.0	05/03/22 14:00	05/03/22 16:46	KB1	IC6	1	B138708	No Prep	

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209623-04	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-3, 4/25/2022 10:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0028	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.1	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	2.8	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	0.18	ug/L	1.0	0.10	EPA-200.8	ND	J	2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22	09:48	SAV	IC-4	1	B138681	No Prep
2	EPA-200.8	04/27/22 09:50	04/27/22	15:40	AK1	PE-EL4	1	B138027	EPA 200.2
3	EPA-200.7	04/27/22 18:25	05/03/22	18:33	JRG	PE-OP4	1	B138117	EPA 200.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-05		Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-2, 4/25/2022 10:15:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.39</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.16</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-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-05	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-23-2, 4/25/2022 10:15:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.63</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-05	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-2, 4/25/2022 10:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 11:49	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-05	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-2, 4/25/2022 10:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	11:49	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209623-05	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, MW-23-2, 4/25/2022 10:15:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/27/22 23:12	ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-05	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-23-2, 4/25/2022 10:15:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	120	mg/L	0.10	0.014	EPA-200.7	0.024		1	
Total Recoverable Magnesium	40	mg/L	0.050	0.019	EPA-200.7	ND		1	
Total Recoverable Sodium	33	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	2.5	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	270	mg/L	10	10	SM-2320B	ND	A10	2	
Carbonate	ND	mg/L	5.0	5.0	SM-2320B	ND	A10	2	
Total Alkalinity as CaCO <sub>3</sub>	230	mg/L	8.2	8.2	SM-2320B	ND	A10	2	
Chloride	110	mg/L	0.50	0.13	EPA-300.0	ND		3	
Nitrate as N	14	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	160	mg/L	1.0	0.14	EPA-300.0	ND		3	
pH	7.90	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	750	mg/L	33	17	EPA-160.1	ND	A10	5	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6	
Perchlorate	3.6	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time	Date/Time				Batch ID	Prep Method
1	EPA-200.7	04/27/22 18:25	05/03/22 18:35		JRG	PE-OP4	1	B138117	EPA 200.2
2	SM-2320B	04/27/22 10:30	04/27/22 19:01		RML	MET-1	2	B135819	No Prep
3	EPA-300.0	04/26/22 00:00	04/26/22 03:52		SAV	IC1	1	B137915	No Prep
4	EPA-150.1	04/27/22 10:30	04/27/22 19:01		RML	MET-1	1	B135819	No Prep
5	EPA-160.1	04/27/22 15:30	04/27/22 15:30		CAD	MANUAL	3.333	B138084	No Prep
6	EPA-353.2	04/26/22 00:31	04/26/22 00:32		KB1	KONE-1	1	B137926	No Prep
7	EPA-314.0	05/03/22 14:00	05/03/22 17:01		KB1	IC6	1	B138708	No Prep

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209623-05	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-2, 4/25/2022 10:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0017	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.2	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	1.2	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22	09:58	SAV	IC-4	1	B138681	No Prep
2	EPA-200.8	04/27/22 09:50	04/27/22	15:42	AK1	PE-EL4	1	B138027	EPA 200.2
3	EPA-200.7	04/27/22 18:25	05/03/22	18:35	JRG	PE-OP4	1	B138117	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-06	Client Sample Name: JPL- GW Monitoring Wells-CLP, DUP-1-2Q22, 4/25/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.38</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-06	Client Sample Name:	JPL- GW Monitoring Wells-CLP, DUP-1-2Q22, 4/25/2022 10:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.23</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
<b>Trichloroethene</b>	<b>0.62</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209623-06	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, DUP-1-2Q22, 4/25/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	89.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 12:14	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-06	Client Sample Name: JPL- GW Monitoring Wells-CLP, DUP-1-2Q22, 4/25/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	12:14	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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 Powell, OH 43065

**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209623-06	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, DUP-1-2Q22, 4/25/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22 01:23	ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-06	Client Sample Name:	JPL- GW Monitoring Wells-CLP, DUP-1-2Q22, 4/25/2022 10:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	120	mg/L	0.10	0.014	EPA-200.7	0.024		1	
Total Recoverable Magnesium	39	mg/L	0.050	0.019	EPA-200.7	ND		1	
Total Recoverable Sodium	33	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	2.5	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	280	mg/L	10	10	SM-2320B	ND	A10	2	
Carbonate	ND	mg/L	5.0	5.0	SM-2320B	ND	A10	2	
Total Alkalinity as CaCO3	230	mg/L	8.2	8.2	SM-2320B	ND	A10	2	
Chloride	110	mg/L	0.50	0.13	EPA-300.0	ND		3	
Nitrate as N	14	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	160	mg/L	1.0	0.14	EPA-300.0	ND		3	
pH	7.92	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	730	mg/L	33	17	EPA-160.1	ND	A10	5	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6	
Perchlorate	3.8	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time	Date/Time				Batch ID	Prep Method
1	EPA-200.7	04/27/22 18:25	05/03/22 18:37		JRG	PE-OP4	1	B138117	EPA 200.2
2	SM-2320B	04/27/22 10:30	04/27/22 19:11		RML	MET-1	2	B135819	No Prep
3	EPA-300.0	04/26/22 00:00	04/26/22 04:55		SAV	IC1	1	B137915	No Prep
4	EPA-150.1	04/27/22 10:30	04/27/22 19:11		RML	MET-1	1	B135819	No Prep
5	EPA-160.1	04/27/22 15:30	04/27/22 15:30		CAD	MANUAL	3.333	B138084	No Prep
6	EPA-353.2	04/26/22 00:31	04/26/22 00:37		KB1	KONE-1	1	B137926	No Prep
7	EPA-314.0	05/03/22 14:00	05/03/22 17:16		KB1	IC6	1	B138708	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2209623-06	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, DUP-1-2Q22, 4/25/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0019	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	1.5	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	33	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 10:07		SAV	IC-4	1	B138681	No Prep
2	EPA-200.8	04/27/22 09:50	04/27/22 15:44		AK1	PE-EL4	1	B138027	EPA 200.2
3	EPA-200.7	04/27/22 18:25	05/03/22 18:37		JRG	PE-OP4	1	B138117	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-07	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-23-1, 4/25/2022 11:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>0.36</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-07		Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-1, 4/25/2022 11:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.95</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209623-07      **Client Sample Name:** JPL- GW Monitoring Wells-CLP, MW-23-1, 4/25/2022 11:30:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 12:38	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-07	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-1, 4/25/2022 11:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	12:38	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209623-07	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-23-1, 4/25/2022 11:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22 01:50	ADC	MS-V16	1	B138048	EPA 524.2

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-07	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-23-1, 4/25/2022 11:30:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	120	mg/L	0.10	0.014	EPA-200.7	0.024		1
Total Recoverable Magnesium	38	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	31	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.5	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	290	mg/L	10	10	SM-2320B	ND	A10	2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B	ND	A10	2
Total Alkalinity as CaCO3	240	mg/L	8.2	8.2	SM-2320B	ND	A10	2
Chloride	93	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	9.9	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	150	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	7.90	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	710	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	6.7	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/27/22 18:25	05/03/22 18:40		JRG	PE-OP4	1	B138117	EPA 200.2
2	SM-2320B	04/27/22 10:30	04/27/22 19:19		RML	MET-1	2	B135819	No Prep
3	EPA-300.0	04/26/22 00:00	04/26/22 05:16		SAV	IC1	1	B137915	No Prep
4	EPA-150.1	04/27/22 10:30	04/27/22 19:19		RML	MET-1	1	B135819	No Prep
5	EPA-160.1	04/27/22 15:30	04/27/22 15:30		CAD	MANUAL	3.333	B138084	No Prep
6	EPA-353.2	04/26/22 00:31	04/26/22 00:37		KB1	KONE-1	1	B137926	No Prep
7	EPA-314.0	05/03/22 14:00	05/03/22 17:32		KB1	IC6	1	B138708	No Prep

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2209623-07	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, MW-23-1, 4/25/2022 11:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0015	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
<b>Total Recoverable Chromium</b>	<b>0.93</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 10:36		SAV	IC-4	1	B138682	No Prep
2	EPA-200.8	04/27/22 09:50	04/27/22 15:46		AK1	PE-EL4	1	B138027	EPA 200.2
3	EPA-200.7	04/27/22 18:25	05/03/22 18:40		JRG	PE-OP4	1	B138117	EPA 200.2

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-08	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-24-4, 4/25/2022 12:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-08		Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-4, 4/25/2022 12:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
<b>Styrene</b>	<b>0.14</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	J	1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-08	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-4, 4/25/2022 12:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	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

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 13:03	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-08	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-4, 4/25/2022 12:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	13:03	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number





Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209623-08	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, MW-24-4, 4/25/2022 12:45:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22	02:16	ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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 3761 Attucks Drive  
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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-08	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-24-4, 4/25/2022 12:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	5.2	mg/L	0.10	0.014	EPA-200.7	0.024		1	
Total Recoverable Magnesium	3.4	mg/L	0.050	0.019	EPA-200.7	ND		1	
Total Recoverable Sodium	25	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	1.1	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	55	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	7.0	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	57	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	21	mg/L	0.50	0.13	EPA-300.0	ND		3	
Nitrate as N	0.12	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	3.4	mg/L	1.0	0.14	EPA-300.0	ND		3	
pH	8.98	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	120	mg/L	10	5.0	EPA-160.1	ND		5	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6	
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/27/22 18:25	05/03/22 18:42		JRG	PE-OP4	1	B138117	EPA 200.2
2	SM-2320B	04/27/22 10:30	04/27/22 19:28		RML	MET-1	1	B135819	No Prep
3	EPA-300.0	04/26/22 00:00	04/26/22 05:37		SAV	IC1	1	B137915	No Prep
4	EPA-150.1	04/27/22 10:30	04/27/22 19:28		RML	MET-1	1	B135819	No Prep
5	EPA-160.1	04/27/22 15:30	04/27/22 15:30		CAD	MANUAL	1	B138084	No Prep
6	EPA-353.2	04/26/22 00:31	04/26/22 00:37		KB1	KONE-1	1	B137926	No Prep
7	EPA-314.0	05/03/22 14:00	05/03/22 18:18		KB1	IC6	1	B138708	No Prep

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Tidewater Inc. - Powell  
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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209623-08	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-4, 4/25/2022 12:45:00PM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00016	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	1.3	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	110	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 10:46		SAV	IC-4	1	B138682	No Prep
2	EPA-200.8	04/27/22 09:50	04/27/22 15:48		AK1	PE-EL4	1	B138027	EPA 200.2
3	EPA-200.7	04/27/22 18:25	05/03/22 18:42		JRG	PE-OP4	1	B138117	EPA 200.2

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Tidewater Inc. - Powell  
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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-09	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-24-5, 4/25/2022 1:15:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-09	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-24-5, 4/25/2022 1:15:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-09	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-5, 4/25/2022 1:15:00PM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.8	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 13:27	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-09	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-5, 4/25/2022 1:15:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	13:27	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209623-09	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, MW-24-5, 4/25/2022 1:15:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22	02:42	ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-09	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-24-5, 4/25/2022 1:15:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	33	mg/L	0.10	0.014	EPA-200.7	0.024		1
Total Recoverable Magnesium	8.4	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	34	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	1.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	210	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	3.1	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	170	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	9.7	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	1.4	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	21	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	8.32	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	270	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time	Date/Time				Batch ID	Prep Method
1	EPA-200.7	04/27/22 18:25	05/03/22 18:44		JRG	PE-OP4	1	B138117	EPA 200.2
2	SM-2320B	04/27/22 10:30	04/27/22 19:36		RML	MET-1	1	B135819	No Prep
3	EPA-300.0	04/26/22 00:00	04/26/22 05:58		SAV	IC1	1	B137915	No Prep
4	EPA-150.1	04/27/22 10:30	04/27/22 19:36		RML	MET-1	1	B135819	No Prep
5	EPA-160.1	04/27/22 15:30	04/27/22 15:30		CAD	MANUAL	2	B138084	No Prep
6	EPA-353.2	04/26/22 00:31	04/26/22 00:37		KB1	KONE-1	1	B137926	No Prep
7	EPA-314.0	05/03/22 14:00	05/03/22 18:33		KB1	IC6	1	B138708	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209623-09	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-5, 4/25/2022 1:15:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0023	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	2.7	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	3.5	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	690	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	0.45	ug/L	1.0	0.10	EPA-200.8	ND	J	2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 10:55		SAV	IC-4	1	B138682	No Prep
2	EPA-200.8	04/27/22 09:50	04/27/22 15:50		AK1	PE-EL4	1	B138027	EPA 200.2
3	EPA-200.7	04/27/22 18:25	05/03/22 18:44		JRG	PE-OP4	1	B138117	EPA 200.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-10	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-24-3, 4/25/2022 2:00:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.18</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-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209623-10      **Client Sample Name:** JPL- GW Monitoring Wells-CLP, MW-24-3, 4/25/2022 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209623-10	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, MW-24-3, 4/25/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 13:52	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-10	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-3, 4/25/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	13:52	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209623-10	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-3, 4/25/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22	03:08	ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-10	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-24-3, 4/25/2022 2:00:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	45	mg/L	0.10	0.014	EPA-200.7	0.027		1
Total Recoverable Magnesium	21	mg/L	0.050	0.019	EPA-200.7	ND		2
Total Recoverable Sodium	51	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.5	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		3
Carbonate	3.1	mg/L	2.5	2.5	SM-2320B	ND		3
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		3
Chloride	58	mg/L	0.50	0.13	EPA-300.0	ND		4
Nitrate as N	0.31	mg/L	0.10	0.024	EPA-300.0	ND		4
Sulfate	52	mg/L	1.0	0.14	EPA-300.0	ND		4
pH	8.33	pH Units	0.05	0.05	EPA-150.1		S05	5
Total Dissolved Solids @ 180 C	400	mg/L	20	10	EPA-160.1	ND	A10	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		8

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/27/22 21:25	04/28/22 15:05		JRG	PE-OP4	1	B138118	EPA 200.2
2	EPA-200.7	04/27/22 21:25	05/03/22 16:43		JRG	PE-OP4	1	B138118	EPA 200.2
3	SM-2320B	04/27/22 10:30	04/27/22 19:46		RML	MET-1	1	B135819	No Prep
4	EPA-300.0	04/26/22 00:00	04/26/22 06:19		SAV	IC1	1	B137915	No Prep
5	EPA-150.1	04/27/22 10:30	04/27/22 19:46		RML	MET-1	1	B135819	No Prep
6	EPA-160.1	04/27/22 15:30	04/27/22 15:30		CAD	MANUAL	2	B138084	No Prep
7	EPA-353.2	04/26/22 00:31	04/26/22 00:37		KB1	KONE-1	1	B137926	No Prep
8	EPA-314.0	05/03/22 14:00	05/03/22 18:49		KB1	IC6	1	B138708	No Prep

DCN = Data Continuation Number

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209623-10	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-3, 4/25/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00011	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	1.7	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	120	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 11:24		SAV	IC-4	1	B138682	No Prep
2	EPA-200.8	04/27/22 09:50	04/27/22 15:52		AK1	PE-EL4	1	B138027	EPA 200.2
3	EPA-200.7	04/27/22 21:25	04/28/22 15:05		JRG	PE-OP4	1	B138118	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209623-11	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, MW-24-2, 4/25/2022 2:30:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.63</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-11	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-24-2, 4/25/2022 2:30:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-11	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-2, 4/25/2022 2:30:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 07:45	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-11	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-2, 4/25/2022 2:30:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	07:45	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number

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 3761 Attucks Drive  
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**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209623-11	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, MW-24-2, 4/25/2022 2:30:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time	Date/Time				Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/27/22	15:46	ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-11	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-24-2, 4/25/2022 2:30:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	52	mg/L	0.10	0.014	EPA-200.7	0.024		1
Total Recoverable Magnesium	17	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	46	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	3.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	220	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	180	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	67	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	1.2	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	34	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	8.18	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	380	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	9.6	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/27/22 18:25	05/03/22 17:58		JRG	PE-OP4	1	B138117	EPA 200.2
2	SM-2320B	04/27/22 10:30	04/27/22 18:45		RML	MET-1	1	B135819	No Prep
3	EPA-300.0	04/26/22 00:00	04/26/22 01:25		SAV	IC1	1	B137915	No Prep
4	EPA-150.1	04/27/22 10:30	04/27/22 18:45		RML	MET-1	1	B135819	No Prep
5	EPA-160.1	04/27/22 15:30	04/27/22 15:30		CAD	MANUAL	2	B138084	No Prep
6	EPA-353.2	04/26/22 00:31	04/26/22 00:32		KB1	KONE-1	1	B137926	No Prep
7	EPA-314.0	05/03/22 14:00	05/03/22 19:04		KB1	IC6	1	B138708	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209623-11	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-2, 4/25/2022 2:30:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0014	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	2.0	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	1.2	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	42	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	0.53	ug/L	1.0	0.10	EPA-200.8	ND	J	2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22	11:34	SAV	IC-4	1	B138682	No Prep
2	EPA-200.8	04/27/22 09:50	04/27/22	15:14	AK1	PE-EL4	1	B138027	EPA 200.2
3	EPA-200.7	04/27/22 18:25	05/03/22	17:58	JRG	PE-OP4	1	B138117	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-12		Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-1, 4/25/2022 3:30:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
<b>Bromodichloromethane</b>	<b>0.26</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.20</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-12	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-24-1, 4/25/2022 3:30:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-12	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-1, 4/25/2022 3:30:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 14:17	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-12	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-1, 4/25/2022 3:30:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	14:17	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209623-12	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-1, 4/25/2022 3:30:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22 03:34		ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
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**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## 1,4-Dioxane (EPA Method 8270C)

<b>BCL Sample ID:</b> 2209623-12	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, MW-24-1, 4/25/2022 3:30:00PM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,4-Dioxane	ND	ug/L	1.0	0.27	EPA-8270C	ND		1
Naphthalene-d8 (Surrogate)	83.4	%	70 - 130 (LCL - UCL)		EPA-8270C			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-8270C	05/02/22 14:00	05/05/22 16:08	OLH	MS-B4	0.971	B138836	EPA 3510C

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-12	Client Sample Name:	JPL- GW Monitoring Wells-CLP, MW-24-1, 4/25/2022 3:30:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	68	mg/L	0.10	0.014	EPA-200.7	0.027		1
Total Recoverable Magnesium	20	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	42	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	3.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	77	mg/L	0.50	0.13	EPA-300.0	0.13		3
Nitrate as N	2.1	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	54	mg/L	1.0	0.14	EPA-300.0	0.23		3
pH	8.10	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	450	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	140	ug/L	20	8.1	EPA-314.0	ND	A10	7
ortho-Phosphate as P	0.019	mg/L	0.050	0.017	EPA-365.1	ND	J	8

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/27/22 21:25	05/03/22	17:08	JRG	PE-OP4	1	B138118	EPA 200.2
2	SM-2320B	04/27/22 10:30	04/27/22	19:55	RML	MET-1	1	B135819	No Prep
3	EPA-300.0	04/26/22 01:00	04/26/22	02:56	SAV	IC8	1	B137917	No Prep
4	EPA-150.1	04/27/22 10:30	04/27/22	19:55	RML	MET-1	1	B135819	No Prep
5	EPA-160.1	04/27/22 15:30	04/27/22	15:30	CAD	MANUAL	2	B138085	No Prep
6	EPA-353.2	04/26/22 00:31	04/26/22	00:37	KB1	KONE-1	1	B137927	No Prep
7	EPA-314.0	05/03/22 14:00	05/04/22	02:47	SAV	IC6	10	B138708	No Prep
8	EPA-365.1	04/26/22 00:47	04/26/22	00:56	KB1	SC-2	1	B138058	No Prep

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209623-12	Client Sample Name: JPL- GW Monitoring Wells-CLP, MW-24-1, 4/25/2022 3:30:00PM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00022	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.3	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	3.8	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	590	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 12:12		SAV	IC-4	1	B138682	No Prep
2	EPA-200.8	04/27/22 21:25	04/28/22 10:40		KHS	PE-EL2	1	B138119	EPA 200.2
3	EPA-200.7	04/27/22 21:25	05/03/22 17:08		JRG	PE-OP4	1	B138118	EPA 200.2

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Tidewater Inc. - Powell  
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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-13	Client Sample Name:	JPL- GW Monitoring Wells-CLP, EB-1-042522, 4/25/2022 4:50:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-13	Client Sample Name:	JPL- GW Monitoring Wells-CLP, EB-1-042522, 4/25/2022 4:50:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
<b>Toluene</b>	<b>0.36</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.17</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209623-13	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, EB-1-042522, 4/25/2022 4:50:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 14:41	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-13	Client Sample Name: JPL- GW Monitoring Wells-CLP, EB-1-042522, 4/25/2022 4:50:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	14:41	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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 Powell, OH 43065

**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209623-13	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, EB-1-042522, 4/25/2022 4:50:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22 04:01	ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-13	Client Sample Name:	JPL- GW Monitoring Wells-CLP, EB-1-042522, 4/25/2022 4:50:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	0.042	mg/L	0.10	0.014	EPA-200.7	0.027	J	1	
Total Recoverable Magnesium	ND	mg/L	0.050	0.019	EPA-200.7	ND		2	
Total Recoverable Sodium	0.077	mg/L	0.50	0.051	EPA-200.7	ND	J	1	
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	ND	mg/L	5.0	5.0	SM-2320B	ND		3	
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		3	
Total Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		3	
Chloride	ND	mg/L	0.50	0.13	EPA-300.0	0.13		4	
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		4	
Sulfate	0.22	mg/L	1.0	0.14	EPA-300.0	0.23	J	4	
pH	5.88	pH Units	0.05	0.05	EPA-150.1		S05	5	
Total Dissolved Solids @ 180 C	4.0	mg/L	6.7	3.3	EPA-160.1	ND	J	6	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7	
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		8	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/27/22 21:25	04/28/22 15:26		JRG	PE-OP4	1	B138118	EPA 200.2
2	EPA-200.7	04/27/22 21:25	05/03/22 17:10		JRG	PE-OP4	1	B138118	EPA 200.2
3	SM-2320B	04/27/22 10:30	04/27/22 20:04		RML	MET-1	1	B135819	No Prep
4	EPA-300.0	04/26/22 01:00	04/26/22 06:21		SAV	IC8	1	B137917	No Prep
5	EPA-150.1	04/27/22 10:30	04/27/22 20:04		RML	MET-1	1	B135819	No Prep
6	EPA-160.1	04/27/22 15:30	04/27/22 15:30		CAD	MANUAL	0.667	B138085	No Prep
7	EPA-353.2	04/26/22 00:31	04/26/22 00:41		KB1	KONE-1	1	B137927	No Prep
8	EPA-314.0	05/03/22 14:00	05/03/22 20:21		KB1	IC6	1	B138708	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2209623-13	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, EB-1-042522, 4/25/2022 4:50:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000062	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 12:22		SAV	IC-4	1	B138682	No Prep
2	EPA-200.8	04/27/22 21:25	04/28/22 10:42		KHS	PE-EL2	1	B138119	EPA 200.2
3	EPA-200.7	04/27/22 21:25	04/28/22 15:26		JRG	PE-OP4	1	B138118	EPA 200.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209623-14      **Client Sample Name:** JPL- GW Monitoring Wells-CLP, SB-1-042522, 4/25/2022 5:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209623-14	Client Sample Name:	JPL- GW Monitoring Wells-CLP, SB-1-042522, 4/25/2022 5:00:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
<b>Toluene</b>	<b>0.41</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.17</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209623-14	Client Sample Name: JPL- GW Monitoring Wells-CLP, SB-1-042522, 4/25/2022 5:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01,V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22 15:06	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209623-14	Client Sample Name: JPL- GW Monitoring Wells-CLP, SB-1-042522, 4/25/2022 5:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/26/22 07:00	04/26/22	15:06	MGC	MS-V5	1	B137883	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209623-14	Client Sample Name: JPL- GW Monitoring Wells-CLP, SB-1-042522, 4/25/2022 5:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22 04:53	ADC	MS-V16	1	B138048	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209623-14	Client Sample Name:	JPL- GW Monitoring Wells-CLP, SB-1-042522, 4/25/2022 5:00:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	0.021	mg/L	0.10	0.014	EPA-200.7	0.027	J	1
Total Recoverable Magnesium	ND	mg/L	0.050	0.019	EPA-200.7	ND		2
Total Recoverable Sodium	ND	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	ND	mg/L	5.0	5.0	SM-2320B	ND		3
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		3
Total Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		3
Chloride	ND	mg/L	0.50	0.13	EPA-300.0	0.13		4
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		4
Sulfate	ND	mg/L	1.0	0.14	EPA-300.0	0.23		4
pH	5.81	pH Units	0.05	0.05	EPA-150.1		S05	5
Total Dissolved Solids @ 180 C	3.3	mg/L	6.7	3.3	EPA-160.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		8

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/27/22 21:25	04/28/22 15:29		JRG	PE-OP4	1	B138118	EPA 200.2
2	EPA-200.7	04/27/22 21:25	05/03/22 17:12		JRG	PE-OP4	1	B138118	EPA 200.2
3	SM-2320B	04/27/22 10:30	04/27/22 20:11		RML	MET-1	1	B135819	No Prep
4	EPA-300.0	04/26/22 01:00	04/26/22 06:41		SAV	IC8	1	B137917	No Prep
5	EPA-150.1	04/27/22 10:30	04/27/22 20:11		RML	MET-1	1	B135819	No Prep
6	EPA-160.1	04/27/22 15:30	04/27/22 15:30		CAD	MANUAL	0.667	B138085	No Prep
7	EPA-353.2	04/26/22 00:31	04/26/22 00:41		KB1	KONE-1	1	B137927	No Prep
8	EPA-314.0	05/03/22 14:00	05/03/22 20:36		KB1	IC6	1	B138708	No Prep

DCN = Data Continuation Number



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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2209623-14	<b>Client Sample Name:</b> JPL- GW Monitoring Wells-CLP, SB-1-042522, 4/25/2022 5:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000049	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 12:31		MKB	IC-4	1	B138682	No Prep
2	EPA-200.8	04/27/22 21:25	04/28/22 10:44		KHS	PE-EL2	1	B138119	EPA 200.2
3	EPA-200.7	04/27/22 21:25	04/28/22 15:29		JRG	PE-OP4	1	B138118	EPA 200.2

DCN = Data Continuation Number

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 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B137883</b>						
Benzene	B137883-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B137883-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B137883-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B137883-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B137883-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B137883-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B137883-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B137883-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B137883-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B137883-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B137883-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B137883-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B137883-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B137883-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B137883-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B137883-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B137883-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B137883-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B137883-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B137883-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B137883-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B137883-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B137883-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B137883-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B137883-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B137883-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B137883-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B137883-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B137883-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B137883-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B137883-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B137883-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B137883-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B137883-BLK1	ND	ug/L	0.50	0.14	

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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: B137883</b>						
trans-1,3-Dichloropropene	B137883-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B137883-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B137883-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B137883-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B137883-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B137883-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B137883-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B137883-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B137883-BLK1	ND	ug/L	0.50	0.12	
Styrene	B137883-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B137883-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B137883-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B137883-BLK1	ND	ug/L	0.50	0.23	
Toluene	B137883-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B137883-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B137883-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B137883-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B137883-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B137883-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B137883-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B137883-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B137883-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B137883-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B137883-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B137883-BLK1	ND	ug/L	0.50	0.18	
Acetone	B137883-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B137883-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B137883-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B137883-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B137883-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B137883-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B137883-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B137883-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B137883-BLK1	ND	ug/L	4.0	1.3	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B137883</b>						
Ethyl t-butyl ether	B137883-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B137883-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B137883-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B137883-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B137883-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B137883-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B137883-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B137883-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B137883-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B137883-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B137883-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B137883-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B137883-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B137883-BLK1</b>	<b>93.6</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B137883-BLK1</b>	<b>98.7</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B137883-BLK1</b>	<b>89.6</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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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: B137883</b>										
Benzene	B137883-BS1	LCS	23.590	25.000	ug/L	94.4		70	130	
Bromodichloromethane	B137883-BS1	LCS	22.740	25.000	ug/L	91.0		70	130	
Chlorobenzene	B137883-BS1	LCS	22.920	25.000	ug/L	91.7		70	130	
Chloroethane	B137883-BS1	LCS	24.990	25.000	ug/L	100		70	130	
1,4-Dichlorobenzene	B137883-BS1	LCS	22.310	25.000	ug/L	89.2		70	130	
1,1-Dichloroethane	B137883-BS1	LCS	24.250	25.000	ug/L	97.0		70	130	
1,1-Dichloroethene	B137883-BS1	LCS	24.690	25.000	ug/L	98.8		70	130	
Toluene	B137883-BS1	LCS	22.520	25.000	ug/L	90.1		70	130	
Trichloroethene	B137883-BS1	LCS	23.310	25.000	ug/L	93.2		70	130	
1,2-Dichloroethane-d4 (Surrogate)	B137883-BS1	LCS	9.7500	10.000	ug/L	97.5		75	125	
Toluene-d8 (Surrogate)	B137883-BS1	LCS	9.8900	10.000	ug/L	98.9		80	120	
4-Bromofluorobenzene (Surrogate)	B137883-BS1	LCS	9.4500	10.000	ug/L	94.5		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	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B137883</b>		Used client sample: Y - Description: MW-24-2, 04/25/2022 14:30									
Benzene	MS	2209623-11	ND	23.390	25.000	ug/L		93.6		70 - 130	
	MSD	2209623-11	ND	24.030	25.000	ug/L	2.7	96.1	20	70 - 130	
Bromodichloromethane	MS	2209623-11	ND	22.790	25.000	ug/L		91.2		70 - 130	
	MSD	2209623-11	ND	23.250	25.000	ug/L	2.0	93.0	20	70 - 130	
Chlorobenzene	MS	2209623-11	ND	23.330	25.000	ug/L		93.3		70 - 130	
	MSD	2209623-11	ND	23.600	25.000	ug/L	1.2	94.4	20	70 - 130	
Chloroethane	MS	2209623-11	ND	24.740	25.000	ug/L		99.0		70 - 130	
	MSD	2209623-11	ND	24.980	25.000	ug/L	1.0	99.9	20	70 - 130	
1,4-Dichlorobenzene	MS	2209623-11	ND	22.490	25.000	ug/L		90.0		70 - 130	
	MSD	2209623-11	ND	23.070	25.000	ug/L	2.5	92.3	20	70 - 130	
1,1-Dichloroethane	MS	2209623-11	ND	24.410	25.000	ug/L		97.6		70 - 130	
	MSD	2209623-11	ND	24.780	25.000	ug/L	1.5	99.1	20	70 - 130	
1,1-Dichloroethene	MS	2209623-11	ND	24.610	25.000	ug/L		98.4		70 - 130	
	MSD	2209623-11	ND	25.090	25.000	ug/L	1.9	100	20	70 - 130	
Toluene	MS	2209623-11	ND	22.270	25.000	ug/L		89.1		70 - 130	
	MSD	2209623-11	ND	22.950	25.000	ug/L	3.0	91.8	20	70 - 130	
Trichloroethene	MS	2209623-11	ND	23.090	25.000	ug/L		92.4		70 - 130	
	MSD	2209623-11	ND	23.640	25.000	ug/L	2.4	94.6	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2209623-11	ND	9.7800	10.000	ug/L		97.8		75 - 125	
	MSD	2209623-11	ND	9.7000	10.000	ug/L	0.8	97.0		75 - 125	
Toluene-d8 (Surrogate)	MS	2209623-11	ND	9.8600	10.000	ug/L		98.6		80 - 120	
	MSD	2209623-11	ND	9.8600	10.000	ug/L	0	98.6		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2209623-11	ND	9.7200	10.000	ug/L		97.2		80 - 120	
	MSD	2209623-11	ND	9.7000	10.000	ug/L	0.2	97.0		80 - 120	

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Project Number: 2Q22  
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: B137883</b>						
Nitrobenzene	B137883-BLK1	0	ug/L			
Methyl acrylate	B137883-BLK1	0	ug/L			
Chloroacetonitrile	B137883-BLK1	0	ug/L			
2-Nitropropane	B137883-BLK1	0	ug/L			
1-Chlorobutane	B137883-BLK1	0	ug/L			
1,1-Dichloropropanone	B137883-BLK1	0	ug/L			

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Reported: 05/13/2022 14:20  
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 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B138048</b>						
1,2,3-Trichloropropane	B138048-BLK1	ND	ug/L	0.0050	0.0010	

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 Project Number: 2Q22  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### 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: B138048</b>										
1,2,3-Trichloropropane	B138048-BS1	LCS	0.052840	0.050000	ug/L	106		80 - 120		

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 Project Number: 2Q22  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138048</b>		Used client sample: Y - Description: MW-24-2, 04/25/2022 14:30									
1,2,3-Trichloropropane	MS	2209623-11	ND	0.052540	0.050000	ug/L		105		70 - 130	
	MSD	2209623-11	ND	0.049150	0.050000	ug/L	6.7	98.3	30	70 - 130	

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Project Number: 2Q22  
Project Manager: David Conner

## 1,4-Dioxane (EPA Method 8270C)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B138836</b>						
1,4-Dioxane	B138836-BLK1	ND	ug/L	1.0	0.27	
Naphthalene-d8 (Surrogate)	B138836-BLK1	78.1	%	70 - 130 (LCL - UCL)		

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 Project Number: 2Q22  
 Project Manager: David Conner

## 1,4-Dioxane (EPA Method 8270C)

### 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: B138836</b>										
1,4-Dioxane	B138836-BS1	LCS	39.840	50.000	ug/L	79.7		70 - 130		
	B138836-BSD1	LCSD	41.111	50.000	ug/L	82.2	3.1	70 - 130		30
Naphthalene-d8 (Surrogate)	B138836-BS1	LCS	7.1808	8.0000	ug/L	89.8		70 - 130		
	B138836-BSD1	LCSD	7.0364	8.0000	ug/L	88.0	2.0	70 - 130		

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## 1,4-Dioxane (EPA Method 8270C)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B138836</b>		Used client sample: N									
1,4-Dioxane	MS	2207542-59	ND	35.492	50.000	ug/L		71.0		70 - 130	
	MSD	2207542-59	ND	34.353	50.000	ug/L	3.3	68.7	30	70 - 130	Q03
Naphthalene-d8 (Surrogate)	MS	2207542-59	ND	6.1692	8.0000	ug/L		77.1		70 - 130	
	MSD	2207542-59	ND	6.9993	8.0000	ug/L	12.6	87.5		70 - 130	

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Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B135818</b>						
Bicarbonate	B135818-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B135818-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B135818-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B135819</b>						
Bicarbonate	B135819-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B135819-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B135819-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B137915</b>						
Chloride	B137915-BLK1	ND	mg/L	0.50	0.13	
Nitrate as N	B137915-BLK1	ND	mg/L	0.10	0.024	
Sulfate	B137915-BLK1	ND	mg/L	1.0	0.14	
<b>QC Batch ID: B137917</b>						
Chloride	B137917-BLK1	0.13100	mg/L	0.50	0.13	J
Nitrate as N	B137917-BLK1	ND	mg/L	0.10	0.024	
Sulfate	B137917-BLK1	0.22700	mg/L	1.0	0.14	J
<b>QC Batch ID: B137926</b>						
Nitrite as N	B137926-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B137927</b>						
Nitrite as N	B137927-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B138058</b>						
ortho-Phosphate as P	B138058-BLK1	ND	mg/L	0.050	0.017	
<b>QC Batch ID: B138084</b>						
Total Dissolved Solids @ 180 C	B138084-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B138085</b>						
Total Dissolved Solids @ 180 C	B138085-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B138117</b>						
Total Recoverable Calcium	B138117-BLK1	0.023617	mg/L	0.10	0.014	J
Total Recoverable Magnesium	B138117-BLK1	ND	mg/L	0.050	0.019	
Total Recoverable Sodium	B138117-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B138117-BLK1	ND	mg/L	1.0	0.10	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:20  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138118</b>						
Total Recoverable Calcium	B138118-BLK1	0.027498	mg/L	0.10	0.014	J
Total Recoverable Magnesium	B138118-BLK2	ND	mg/L	0.050	0.019	
Total Recoverable Sodium	B138118-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B138118-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B138708</b>						
Perchlorate	B138708-BLK1	ND	ug/L	2.0	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 Quails
								Percent Recovery	RPD	
<b>QC Batch ID: B135818</b>										
Total Alkalinity as CaCO3	B135818-BS3	LCS	101.34	100.00	mg/L	101		90 - 110		
	B135818-BSD3	LCSD	97.890	100.00	mg/L	97.9	3.5	90 - 110		10
pH	B135818-BS2	LCS	7.0200	7.0000	pH Units	100		95 - 105		
	B135818-BSD2	LCSD	7.0200	7.0000	pH Units	100	0	95 - 105		200
<b>QC Batch ID: B135819</b>										
Total Alkalinity as CaCO3	B135819-BS3	LCS	100.59	100.00	mg/L	101		90 - 110		
	B135819-BSD3	LCSD	98.190	100.00	mg/L	98.2	2.4	90 - 110		10
pH	B135819-BS2	LCS	7.0200	7.0000	pH Units	100		95 - 105		
	B135819-BSD2	LCSD	7.0200	7.0000	pH Units	100	0	95 - 105		200
<b>QC Batch ID: B137915</b>										
Chloride	B137915-BS1	LCS	51.001	50.000	mg/L	102		90 - 110		
Nitrate as N	B137915-BS1	LCS	5.1110	5.0000	mg/L	102		90 - 110		
Sulfate	B137915-BS1	LCS	99.115	100.00	mg/L	99.1		90 - 110		
<b>QC Batch ID: B137917</b>										
Chloride	B137917-BS1	LCS	53.113	50.000	mg/L	106		90 - 110		
Nitrate as N	B137917-BS1	LCS	5.2960	5.0000	mg/L	106		90 - 110		
Sulfate	B137917-BS1	LCS	101.67	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B137926</b>										
Nitrite as N	B137926-BS1	LCS	0.49188	0.50000	mg/L	98.4		90 - 110		
<b>QC Batch ID: B137927</b>										
Nitrite as N	B137927-BS1	LCS	0.47665	0.50000	mg/L	95.3		90 - 110		
<b>QC Batch ID: B138058</b>										
ortho-Phosphate as P	B138058-BS1	LCS	0.49250	0.50000	mg/L	98.5		90 - 110		
<b>QC Batch ID: B138084</b>										
Total Dissolved Solids @ 180 C	B138084-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
	B138084-BSD1	LCSD	600.00	586.00	mg/L	102	0.8	90 - 110		200
<b>QC Batch ID: B138085</b>										
Total Dissolved Solids @ 180 C	B138085-BS1	LCS	605.00	586.00	mg/L	103		90 - 110		
	B138085-BSD1	LCSD	595.00	586.00	mg/L	102	1.7	90 - 110		200
<b>QC Batch ID: B138117</b>										
Total Recoverable Calcium	B138117-BS1	LCS	9.2927	10.000	mg/L	92.9		85 - 115		
Total Recoverable Magnesium	B138117-BS1	LCS	9.1974	10.000	mg/L	92.0		85 - 115		
Total Recoverable Sodium	B138117-BS1	LCS	9.0559	10.000	mg/L	90.6		85 - 115		

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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: B138117</b>										
Total Recoverable Potassium	B138117-BS1	LCS	9.1804	10.000	mg/L	91.8		85 - 115		
<b>QC Batch ID: B138118</b>										
Total Recoverable Calcium	B138118-BS1	LCS	10.308	10.000	mg/L	103		85 - 115		
Total Recoverable Magnesium	B138118-BS2	LCS	10.240	10.000	mg/L	102		85 - 115		
Total Recoverable Sodium	B138118-BS1	LCS	10.048	10.000	mg/L	100		85 - 115		
Total Recoverable Potassium	B138118-BS1	LCS	10.019	10.000	mg/L	100		85 - 115		
<b>QC Batch ID: B138708</b>										
Perchlorate	B138708-BS1	LCS	8.7729	10.000	ug/L	87.7		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			
								Percent Recovery	RPD	Percent Recovery	Lab Quals
<b>QC Batch ID: B135818</b>		Used client sample: N									
Bicarbonate	DUP	2209585-01	123.74	123.74		mg/L	0		10		
Carbonate	DUP	2209585-01	ND	ND		mg/L			10		
Total Alkalinity as CaCO3	DUP	2209585-01	101.49	101.49		mg/L	0		10		
pH	DUP	2209585-01	6.9600	6.9800		pH Units	0.3		20		
<b>QC Batch ID: B135819</b>		Used client sample: Y - Description: MW-24-2, 04/25/2022 14:30									
Bicarbonate	DUP	2209623-11	223.51	223.87		mg/L	0.2		10		
Carbonate	DUP	2209623-11	ND	ND		mg/L			10		
Total Alkalinity as CaCO3	DUP	2209623-11	183.31	183.61		mg/L	0.2		10		
pH	DUP	2209623-11	8.1800	8.1900		pH Units	0.1		20		
<b>QC Batch ID: B137915</b>		Used client sample: Y - Description: MW-24-2, 04/25/2022 14:30									
Chloride	DUP	2209623-11	66.895	66.828		mg/L	0.1		10		
	MS	2209623-11	66.895	117.78	50.505	mg/L		101		80 - 120	
	MSD	2209623-11	66.895	118.77	50.505	mg/L	0.8	103	10	80 - 120	
Nitrate as N	DUP	2209623-11	1.2500	1.2330		mg/L	1.4		10		
	MS	2209623-11	1.2500	6.1808	5.0505	mg/L		97.6		80 - 120	
	MSD	2209623-11	1.2500	6.2606	5.0505	mg/L	1.3	99.2	10	80 - 120	
Sulfate	DUP	2209623-11	33.593	33.380		mg/L	0.6		10		
	MS	2209623-11	33.593	141.74	101.01	mg/L		107		80 - 120	
	MSD	2209623-11	33.593	141.67	101.01	mg/L	0.0	107	10	80 - 120	
<b>QC Batch ID: B137917</b>		Used client sample: Y - Description: MW-24-1, 04/25/2022 15:30									
Chloride	DUP	2209623-12	76.984	77.098		mg/L	0.1		10		
	MS	2209623-12	76.984	130.64	50.505	mg/L		106		80 - 120	
	MSD	2209623-12	76.984	131.29	50.505	mg/L	0.5	108	10	80 - 120	
Nitrate as N	DUP	2209623-12	2.1310	2.1400		mg/L	0.4		10		
	MS	2209623-12	2.1310	7.5758	5.0505	mg/L		108		80 - 120	
	MSD	2209623-12	2.1310	7.6566	5.0505	mg/L	1.1	109	10	80 - 120	
Sulfate	DUP	2209623-12	53.704	54.133		mg/L	0.8		10		
	MS	2209623-12	53.704	166.12	101.01	mg/L		111		80 - 120	
	MSD	2209623-12	53.704	167.05	101.01	mg/L	0.6	112	10	80 - 120	
<b>QC Batch ID: B137926</b>		Used client sample: Y - Description: MW-24-2, 04/25/2022 14:30									
Nitrite as N	DUP	2209623-11	ND	0.012114		mg/L			10		J
	MS	2209623-11	ND	0.51970	0.52632	mg/L		98.7		90 - 110	
	MSD	2209623-11	ND	0.52331	0.52632	mg/L	0.7	99.4	10	90 - 110	
<b>QC Batch ID: B137927</b>		Used client sample: Y - Description: MW-24-1, 04/25/2022 15:30									

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 Project Number: 2Q22  
 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	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B137927</b>		Used client sample: Y - Description: MW-24-1, 04/25/2022 15:30									
Nitrite as N	DUP	2209623-12	ND	ND		mg/L			10		
	MS	2209623-12	ND	0.52017	0.52632	mg/L		98.8		90 - 110	
	MSD	2209623-12	ND	0.51767	0.52632	mg/L	0.5	98.4	10	90 - 110	
<b>QC Batch ID: B138058</b>		Used client sample: Y - Description: MW-24-1, 04/25/2022 15:30									
ortho-Phosphate as P	DUP	2209623-12	0.018900	ND		mg/L			10		
	MS	2209623-12	0.018900	0.54011	0.52632	mg/L		99.0		90 - 110	
	MSD	2209623-12	0.018900	0.55453	0.52632	mg/L	2.6	102	10	90 - 110	
<b>QC Batch ID: B138084</b>		Used client sample: Y - Description: MW-24-2, 04/25/2022 14:30									
Total Dissolved Solids @ 180 C	DUP	2209623-11	378.00	380.00		mg/L	0.5		10		
<b>QC Batch ID: B138085</b>		Used client sample: N									
Total Dissolved Solids @ 180 C	DUP	2209591-01	266.00	266.00		mg/L	0		10		
<b>QC Batch ID: B138117</b>		Used client sample: Y - Description: MW-24-2, 04/25/2022 14:30									
Total Recoverable Calcium	DUP	2209623-11	52.381	48.479		mg/L	7.7		20		
	MS	2209623-11	52.381	62.452	10.000	mg/L		101		75 - 125	
	MSD	2209623-11	52.381	58.983	10.000	mg/L	5.7	66.0	20	75 - 125	A03
Total Recoverable Magnesium	DUP	2209623-11	16.711	15.360		mg/L	8.4		20		
	MS	2209623-11	16.711	27.169	10.000	mg/L		105		75 - 125	
	MSD	2209623-11	16.711	26.356	10.000	mg/L	3.0	96.4	20	75 - 125	
Total Recoverable Sodium	DUP	2209623-11	46.122	42.894		mg/L	7.3		20		
	MS	2209623-11	46.122	55.738	10.000	mg/L		96.2		75 - 125	
	MSD	2209623-11	46.122	53.257	10.000	mg/L	4.6	71.3	20	75 - 125	A03
Total Recoverable Potassium	DUP	2209623-11	3.0474	2.8334		mg/L	7.3		20		
	MS	2209623-11	3.0474	12.671	10.000	mg/L		96.2		75 - 125	
	MSD	2209623-11	3.0474	12.293	10.000	mg/L	3.0	92.5	20	75 - 125	
<b>QC Batch ID: B138118</b>		Used client sample: Y - Description: MW-24-3, 04/25/2022 14:00									
Total Recoverable Calcium	DUP	2209623-10	45.447	46.771		mg/L	2.9		20		
	MS	2209623-10	45.447	55.824	10.000	mg/L		104		75 - 125	
	MSD	2209623-10	45.447	54.308	10.000	mg/L	2.8	88.6	20	75 - 125	
Total Recoverable Magnesium	DUP	'209623-10RE'	21.146	20.801		mg/L	1.6		20		
	MS	'209623-10RE'	21.146	30.664	10.000	mg/L		95.2		75 - 125	
	MSD	'209623-10RE'	21.146	30.223	10.000	mg/L	1.4	90.8	20	75 - 125	
Total Recoverable Sodium	DUP	2209623-10	50.887	52.518		mg/L	3.2		20		
	MS	2209623-10	50.887	61.512	10.000	mg/L		106		75 - 125	
	MSD	2209623-10	50.887	59.914	10.000	mg/L	2.6	90.3	20	75 - 125	
Total Recoverable Potassium	DUP	2209623-10	2.5140	2.5882		mg/L	2.9		20		
	MS	2209623-10	2.5140	12.549	10.000	mg/L		100		75 - 125	
	MSD	2209623-10	2.5140	12.484	10.000	mg/L	0.5	99.7	20	75 - 125	

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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	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138708</b>		Used client sample: Y - Description: MW-24-2, 04/25/2022 14:30									
Perchlorate	DUP	2209623-11	9.5857	9.6748		ug/L	0.9		15		
	MS	2209623-11	9.5857	18.178	10.101	ug/L		85.1		80 - 120	
	MSD	2209623-11	9.5857	17.896	10.101	ug/L	1.6	82.3	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: B138027</b>						
Total Recoverable Arsenic	B138027-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B138027-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B138027-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B138117</b>						
Total Recoverable Iron	B138117-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B138118</b>						
Total Recoverable Iron	B138118-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B138119</b>						
Total Recoverable Arsenic	B138119-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B138119-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B138119-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B138681</b>						
Hexavalent Chromium	B138681-BLK1	ND	mg/L	0.00020	0.000020	
<b>QC Batch ID: B138682</b>						
Hexavalent Chromium	B138682-BLK1	ND	mg/L	0.00020	0.000020	

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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 Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B138027</b>										
Total Recoverable Arsenic	B138027-BS1	LCS	102.28	100.00	ug/L	102		85 - 115		
Total Recoverable Chromium	B138027-BS1	LCS	37.919	40.000	ug/L	94.8		85 - 115		
Total Recoverable Lead	B138027-BS1	LCS	104.24	100.00	ug/L	104		85 - 115		
<b>QC Batch ID: B138117</b>										
Total Recoverable Iron	B138117-BS1	LCS	930.81	1000.0	ug/L	93.1		85 - 115		
<b>QC Batch ID: B138118</b>										
Total Recoverable Iron	B138118-BS1	LCS	1029.2	1000.0	ug/L	103		85 - 115		
<b>QC Batch ID: B138119</b>										
Total Recoverable Arsenic	B138119-BS1	LCS	101.43	100.00	ug/L	101		85 - 115		
Total Recoverable Chromium	B138119-BS1	LCS	44.659	40.000	ug/L	112		85 - 115		
Total Recoverable Lead	B138119-BS1	LCS	108.27	100.00	ug/L	108		85 - 115		
<b>QC Batch ID: B138681</b>										
Hexavalent Chromium	B138681-BS1	LCS	0.019803	0.020000	mg/L	99.0		90 - 110		
<b>QC Batch ID: B138682</b>										
Hexavalent Chromium	B138682-BS1	LCS	0.019912	0.020000	mg/L	99.6		90 - 110		

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## Metals Analysis

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B138027</b>		Used client sample: Y - Description: MW-24-2, 04/25/2022 14:30									
Total Recoverable Arsenic	DUP	2209623-11	2.0410	2.2090		ug/L	7.9		20		
	MS	2209623-11	2.0410	114.42	100.00	ug/L		112		70 - 130	
	MSD	2209623-11	2.0410	106.21	100.00	ug/L	7.4	104	20	70 - 130	
Total Recoverable Chromium	DUP	2209623-11	1.1820	1.2880		ug/L	8.6		20		J
	MS	2209623-11	1.1820	42.925	40.000	ug/L		104		70 - 130	
	MSD	2209623-11	1.1820	38.594	40.000	ug/L	10.6	93.5	20	70 - 130	
Total Recoverable Lead	DUP	2209623-11	0.52800	ND		ug/L			20		
	MS	2209623-11	0.52800	101.47	100.00	ug/L		101		70 - 130	
	MSD	2209623-11	0.52800	94.995	100.00	ug/L	6.6	94.5	20	70 - 130	
<b>QC Batch ID: B138117</b>		Used client sample: Y - Description: MW-24-2, 04/25/2022 14:30									
Total Recoverable Iron	DUP	2209623-11	41.901	44.114		ug/L	5.1		20		J
	MS	2209623-11	41.901	1021.6	1000.0	ug/L		98.0		75 - 125	
	MSD	2209623-11	41.901	985.66	1000.0	ug/L	3.6	94.4	20	75 - 125	
<b>QC Batch ID: B138118</b>		Used client sample: Y - Description: MW-24-3, 04/25/2022 14:00									
Total Recoverable Iron	DUP	2209623-10	122.50	108.20		ug/L	12.4		20		
	MS	2209623-10	122.50	1108.1	1000.0	ug/L		98.6		75 - 125	
	MSD	2209623-10	122.50	1098.2	1000.0	ug/L	0.9	97.6	20	75 - 125	
<b>QC Batch ID: B138119</b>		Used client sample: N									
Total Recoverable Arsenic	DUP	2209574-01	2.7240	1.9280		ug/L	34.2		20		J,A02
	MS	2209574-01	2.7240	109.29	100.00	ug/L		107		70 - 130	
	MSD	2209574-01	2.7240	106.72	100.00	ug/L	2.4	104	20	70 - 130	
Total Recoverable Chromium	DUP	2209574-01	ND	ND		ug/L			20		
	MS	2209574-01	ND	38.756	40.000	ug/L		96.9		70 - 130	
	MSD	2209574-01	ND	38.579	40.000	ug/L	0.5	96.4	20	70 - 130	
Total Recoverable Lead	DUP	2209574-01	0.64900	0.66100		ug/L	1.8		20		J
	MS	2209574-01	0.64900	100.05	100.00	ug/L		99.4		70 - 130	
	MSD	2209574-01	0.64900	99.252	100.00	ug/L	0.8	98.6	20	70 - 130	
<b>QC Batch ID: B138681</b>		Used client sample: N									
Hexavalent Chromium	DUP	2209405-01	0.0011090	0.0010860		mg/L	2.1		10		
	MS	2209405-01	0.0011090	0.020778	0.020202	mg/L		97.4		90 - 110	
	MSD	2209405-01	0.0011090	0.020748	0.020202	mg/L	0.1	97.2	10	90 - 110	
<b>QC Batch ID: B138682</b>		Used client sample: Y - Description: MW-24-2, 04/25/2022 14:30									
Hexavalent Chromium	DUP	2209623-11	0.0014430	0.0014300		mg/L	0.9		10		
	MS	2209623-11	0.0014430	0.021471	0.020202	mg/L		99.1		90 - 110	
	MSD	2209623-11	0.0014430	0.021907	0.020202	mg/L	2.0	101	10	90 - 110	

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Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 05/13/2022 14:20  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration was more than 4 times the spike level.
- A10 Detection and quantitation limits were raised due to matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.
- S05 The sample holding time was exceeded.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.
- V11 The Continuing Calibration Verification (CCV) recovery was not within established control limits.



Date of Report: 05/13/2022

David Conner

Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

Client Project: 2Q22  
BCL Project: JPL- GW Monitoring Wells-CLP  
BCL Work Order: 2209731  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 4/26/2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers  
Client Service Rep

Stuart Buttram  
Operations Manager

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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# Chain of Custody Form

**BC** Laboratories, Inc.

Page 1 of 1

<p><b>Report To:</b> Tidewater, Inc.  <b>Client:</b> * Tidewater, Inc.  <b>Attn:</b> * David Conner  <b>Street Address:</b> * 3761 Altucks Drive  <b>City:</b> * Powell      <b>State:</b> OH      <b>Zip:</b> * 43065  <b>Phone:</b> * 614 298 - 5715      <b>Fax:</b> * 614 1 792 - 2897  <b>Email Address:</b> * david.conner@tidelco.net  <b>Submission #:</b> 2209731</p>	<p><b>Project Description:</b> * JPL-GW Monitoring  <b>Project Code:</b> * 2Q22  <b>Sampler (s):</b> * Blaine Tech</p>	<p><b>Billing:</b>  <b>Client:</b> * Tidewater  <b>Attn:</b> * David Conner  <b>Address:</b> * 3761 Altucks Drive  <b>City:</b> * Powell      <b>State:</b> OH      <b>Zip:</b> * 43065          Are there any tests with holding times? less than or equal to 48 hours?  <input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No  <small>*Standard Turnaround = 10</small></p>	<p><b>Analysis Requested</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sample #</th> <th>Sample Description</th> <th>Date</th> <th>Time</th> <th>Matrix*</th> <th>VOCs EPA 524.2</th> <th>TRM: Cr, Pb, As, Ca, Mg, K</th> <th>Na, Fe</th> <th>Hexavalent Cr-218.6 (mg/L)</th> <th>Cl, NO3, NO2, SO4, Perch.</th> <th>CO3, HCO3, Alk, TDS, pH</th> <th>Orthophosphate 365.1</th> <th>1,4 Dioxane 8270SIM</th> <th>NDMA 1625M</th> <th>Low-level 1,2,3-TCP</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>-1</td> <td>TB-2-042622</td> <td>4/26/22</td> <td>0700</td> <td>GW</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>-2</td> <td>MW-14-5</td> <td></td> <td>0745</td> <td>GW</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>MS/MSD</td> </tr> <tr> <td>-3</td> <td>MW-14-4</td> <td></td> <td>0830</td> <td>GW</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>-4</td> <td>MW-14-3</td> <td></td> <td>0930</td> <td>GW</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>-5</td> <td>DUP-2-2822</td> <td></td> <td>0945</td> <td>GW</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>-6</td> <td>MW-14-2</td> <td></td> <td>1045</td> <td>GW</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>-7</td> <td>MW-21-5</td> <td></td> <td>1245</td> <td>GW</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>-8</td> <td>MW-21-4</td> <td></td> <td>1215</td> <td>GW</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>-9</td> <td>MW-21-3</td> <td></td> <td>1315</td> <td>GW</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>-10</td> <td>MW-21-2</td> <td></td> <td>1345</td> <td>GW</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>-11</td> <td>TB-2-042622</td> <td></td> <td>1445</td> <td>GW</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>MS/MSD</td> </tr> </tbody> </table>	Sample #	Sample Description	Date	Time	Matrix*	VOCs EPA 524.2	TRM: Cr, Pb, As, Ca, Mg, K	Na, Fe	Hexavalent Cr-218.6 (mg/L)	Cl, NO3, NO2, SO4, Perch.	CO3, HCO3, Alk, TDS, pH	Orthophosphate 365.1	1,4 Dioxane 8270SIM	NDMA 1625M	Low-level 1,2,3-TCP	Notes	-1	TB-2-042622	4/26/22	0700	GW	X	X	X	X	X	X	X	X	X	X		-2	MW-14-5		0745	GW	X	X	X	X	X	X	X	X	X	X	MS/MSD	-3	MW-14-4		0830	GW	X	X	X	X	X	X	X	X	X	X		-4	MW-14-3		0930	GW	X	X	X	X	X	X	X	X	X	X		-5	DUP-2-2822		0945	GW	X	X	X	X	X	X	X	X	X	X		-6	MW-14-2		1045	GW	X	X	X	X	X	X	X	X	X	X		-7	MW-21-5		1245	GW	X	X	X	X	X	X	X	X	X	X		-8	MW-21-4		1215	GW	X	X	X	X	X	X	X	X	X	X		-9	MW-21-3		1315	GW	X	X	X	X	X	X	X	X	X	X		-10	MW-21-2		1345	GW	X	X	X	X	X	X	X	X	X	X		-11	TB-2-042622		1445	GW	X	X	X	X	X	X	X	X	X	X	MS/MSD
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-2	MW-14-5		0745	GW	X	X	X	X	X	X	X	X	X	X	MS/MSD																																																																																																																																																																																				
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-7	MW-21-5		1245	GW	X	X	X	X	X	X	X	X	X	X																																																																																																																																																																																					
-8	MW-21-4		1215	GW	X	X	X	X	X	X	X	X	X	X																																																																																																																																																																																					
-9	MW-21-3		1315	GW	X	X	X	X	X	X	X	X	X	X																																																																																																																																																																																					
-10	MW-21-2		1345	GW	X	X	X	X	X	X	X	X	X	X																																																																																																																																																																																					
-11	TB-2-042622		1445	GW	X	X	X	X	X	X	X	X	X	X	MS/MSD																																																																																																																																																																																				

**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

<p><b>Comments:</b>          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)</p>	<p><b>Cost Center:</b>          1. Requisitioned By: _____          2. Requisitioned By: _____          3. Requisitioned By: _____</p>
---	--

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

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BC LABORATORIES INC.		COOLER RECEIPT FORM			Page <u>1</u> Of <u>2</u>					
Submission #: <u>22-09731</u>										
SHIPPING INFORMATION			SHIPPING CONTAINER		FREE LIQUID					
Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <input type="checkbox"/> Hand Delivery <input type="checkbox"/>			Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/>		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>					
BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			Other <input type="checkbox"/> (Specify) _____		(W) / S					
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____										
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>										
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>										
COC Received		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>274</u>		Date/Time <u>4/26/22 1845</u>						
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Temperature: (A) <u>0.7</u> °C / (C) <u>0.5</u> °C		Analyst Init <u>PPE</u>						
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		D,E	G,H	G,H	G,H	G,H		G,H		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		A-C	A-F	A-F	A-F	A-F		A-F		
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.1										
QT EPA 8915M										
QT EPA 8276C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

DISTRIBUTION  
 CHK BY \_\_\_\_\_  
 SUB OUT

SHIPPING TIME  
 OP SS  
 DO C<sub>1</sub> BCD MBAS COT

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: PPE Date/Time: 4/26/22 2200 Rev 22 04/13/21  
 A = Actual / C = Corrected [5:\WP\Doc\Word\Perfect\_LB\_DOC\FORMS\ISAMRECrev 20]

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>2</u> Of <u>2</u>	
Submission #: <u>22-09731</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> W / S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____					
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>			
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>274</u>		Date/Time <u>4/24/22 1845</u>	
		Temperature: (A) <u>0.9</u> °C / (C) <u>0.7</u> °C		Analyst Init <u>PPE</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	G,H						G,H		G,H	M-P
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PCA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A-F						A-F		A-F	A-L
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8915M										
QT EPA 8276C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: PPE Date/Time: 4/26/22 2100  
 A = Actual / C = Corrected



Tidewater Inc. - Powell  
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 Powell, OH 43065

**Reported:** 05/13/2022 14:21  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
2209731-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/26/2022 18:45
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/26/2022 07:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	TB-2-042622	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): TB-2-042622
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2209731-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/26/2022 18:45
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/26/2022 07:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-14-5	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-14-5
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2209731-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/26/2022 18:45
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/26/2022 08:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-14-4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-14-4
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	

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**Reported:** 05/13/2022 14:21  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
2209731-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/26/2022 18:45
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/26/2022 09:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-14-3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-14-3
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2209731-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/26/2022 18:45
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/26/2022 09:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	DUP-2-2Q22	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): DUP-2-2022
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2209731-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/26/2022 18:45
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/26/2022 10:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-14-2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-14-2
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	

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**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
2209731-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/26/2022 18:45
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/26/2022 12:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-21-5	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-21-5
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2209731-08	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/26/2022 18:45
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/26/2022 12:15
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-21-4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-21-4
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2209731-09	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/26/2022 18:45
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/26/2022 13:15
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-21-3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-21-3
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	

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**Reported:** 05/13/2022 14:21  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>2209731-10</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-21-2 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 04/26/2022 18:45 <b>Sampling Date:</b> 04/26/2022 13:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-21-2 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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<b>2209731-11</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> EB-2-042622 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 04/26/2022 18:45 <b>Sampling Date:</b> 04/26/2022 14:45 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): EB-2-042622 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209731-01      **Client Sample Name:** NASA/JPL, TB-2-042622, 4/26/2022 7:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209731-01      **Client Sample Name:** NASA/JPL, TB-2-042622, 4/26/2022 7:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209731-01      **Client Sample Name:** NASA/JPL, TB-2-042622, 4/26/2022 7:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22 10:46	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
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 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209731-01	Client Sample Name: NASA/JPL, TB-2-042622, 4/26/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22	10:46	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209731-02		Client Sample Name: NASA/JPL, MW-14-5, 4/26/2022 7:45:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-02	Client Sample Name:	NASA/JPL, MW-14-5, 4/26/2022 7:45:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209731-02      **Client Sample Name:** NASA/JPL, MW-14-5, 4/26/2022 7:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22 11:10	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209731-02	Client Sample Name: NASA/JPL, MW-14-5, 4/26/2022 7:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22	11:10	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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**Reported:** 05/13/2022 14:21  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209731-02	<b>Client Sample Name:</b> NASA/JPL, MW-14-5, 4/26/2022 7:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22	05:20	ADC	MS-V16	1	B138049	EPA 524.2

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209731-02	Client Sample Name:	NASA/JPL, MW-14-5, 4/26/2022 7:45:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	18	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	12	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	31	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	1.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	160	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	4.1	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	140	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	10	mg/L	0.50	0.13	EPA-300.0	0.13		3
Nitrate as N	0.20	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	16	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	8.42	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	210	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/28/22 11:00	05/03/22 20:32		JRG	PE-OP4	1	B138315	EPA 200.2
2	SM-2320B	04/28/22 07:00	04/28/22 17:25		RML	MET-1	1	B135825	No Prep
3	EPA-300.0	04/26/22 23:00	04/27/22 09:04		SAV	IC8	1	B138022	No Prep
4	EPA-150.1	04/28/22 07:00	04/28/22 17:25		RML	MET-1	1	B135825	No Prep
5	EPA-160.1	04/28/22 14:00	04/28/22 14:00		CAD	MANUAL	2	B138318	No Prep
6	EPA-353.2	04/27/22 10:03	04/27/22 10:03		MC1	KONE-1	1	B138325	No Prep
7	EPA-314.0	05/05/22 23:30	05/06/22 04:14		SAV	IC6	1	B139010	No Prep

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209731-02	Client Sample Name: NASA/JPL, MW-14-5, 4/26/2022 7:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0023	mg/L	0.00020	0.000020	EPA-218.6	0.000051		1
Total Recoverable Arsenic	0.93	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	68	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	04/26/22 23:00	04/27/22 00:19		SAV	IC-4	1	B138023	No Prep
2	EPA-200.8	04/28/22 10:55	04/29/22 13:24		KHS	PE-EL4	1	B138319	EPA 200.2
3	EPA-200.7	04/28/22 11:00	05/03/22 20:32		JRG	PE-OP4	1	B138315	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-03	Client Sample Name:	NASA/JPL, MW-14-4, 4/26/2022 8:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>0.16</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 Powell, OH 43065

Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209731-03		Client Sample Name: NASA/JPL, MW-14-4, 4/26/2022 8:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209731-03	<b>Client Sample Name:</b> NASA/JPL, MW-14-4, 4/26/2022 8:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	91.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22 07:54	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209731-03	Client Sample Name: NASA/JPL, MW-14-4, 4/26/2022 8:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22	07:54	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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**Reported:** 05/13/2022 14:21  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209731-03	<b>Client Sample Name:</b> NASA/JPL, MW-14-4, 4/26/2022 8:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/27/22	17:57	ADC	MS-V16	1	B138049	EPA 524.2

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209731-03							
Client Sample Name:	NASA/JPL, MW-14-4, 4/26/2022 8:30:00AM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	58	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	19	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	28	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	190	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	160	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	49	mg/L	0.50	0.13	EPA-300.0	0.13		3
Nitrate as N	11	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	49	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	8.22	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	390	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	3.4	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/28/22 11:00	05/03/22 20:45		JRG	PE-OP4	1	B138315	EPA 200.2
2	SM-2320B	04/28/22 07:00	04/28/22 16:10		RML	MET-1	1	B135825	No Prep
3	EPA-300.0	04/26/22 23:00	04/27/22 07:42		SAV	IC8	1	B138022	No Prep
4	EPA-150.1	04/28/22 07:00	04/28/22 16:10		RML	MET-1	1	B135825	No Prep
5	EPA-160.1	04/28/22 14:00	04/28/22 14:00		CAD	MANUAL	2	B138318	No Prep
6	EPA-353.2	04/27/22 10:03	04/27/22 10:03		MC1	KONE-1	1	B138325	No Prep
7	EPA-314.0	05/05/22 23:30	05/06/22 03:13		SAV	IC6	1	B139010	No Prep

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209731-03	Client Sample Name: NASA/JPL, MW-14-4, 4/26/2022 8:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00045	mg/L	0.00020	0.000020	EPA-218.6	0.000051		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	2.1	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	44	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	04/26/22 23:00	04/27/22 00:29		SAV	IC-4	1	B138023	No Prep
2	EPA-200.8	04/28/22 10:55	04/29/22 13:26		KHS	PE-EL4	1	B138319	EPA 200.2
3	EPA-200.7	04/28/22 11:00	05/03/22 20:45		JRG	PE-OP4	1	B138315	EPA 200.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209731-04		Client Sample Name: NASA/JPL, MW-14-3, 4/26/2022 9:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.49</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.35</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-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-04	Client Sample Name:	NASA/JPL, MW-14-3, 4/26/2022 9:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.75</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
<b>Trichloroethene</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209731-04	Client Sample Name: NASA/JPL, MW-14-3, 4/26/2022 9:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	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)	94.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22 11:35	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209731-04	Client Sample Name: NASA/JPL, MW-14-3, 4/26/2022 9:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22	11:35	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/13/2022 14:21  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209731-04	<b>Client Sample Name:</b> NASA/JPL, MW-14-3, 4/26/2022 9:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22 07:05		ADC	MS-V16	1	B138049	EPA 524.2

DCN = Data Continuation Number

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 3761 Attucks Drive  
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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209731-04	Client Sample Name:	NASA/JPL, MW-14-3, 4/26/2022 9:30:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	120	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	44	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	43	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	280	mg/L	10	10	SM-2320B	ND	A10	2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B	ND	A10	2
Total Alkalinity as CaCO <sub>3</sub>	230	mg/L	8.2	8.2	SM-2320B	ND	A10	2
Chloride	110	mg/L	0.50	0.13	EPA-300.0	0.13		3
Nitrate as N	14	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	170	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	8.18	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	740	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	4.2	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/28/22 11:00	05/03/22 20:53		JRG	PE-OP4	1	B138315	EPA 200.2
2	SM-2320B	04/28/22 07:00	04/28/22 17:32		RML	MET-1	2	B135825	No Prep
3	EPA-300.0	04/26/22 23:00	04/27/22 09:25		SAV	IC8	1	B138022	No Prep
4	EPA-150.1	04/28/22 07:00	04/28/22 17:32		RML	MET-1	1	B135825	No Prep
5	EPA-160.1	04/28/22 14:00	04/28/22 14:00		CAD	MANUAL	3.333	B138318	No Prep
6	EPA-353.2	04/27/22 10:03	04/27/22 10:03		MC1	KONE-1	1	B138325	No Prep
7	EPA-314.0	05/05/22 23:30	05/06/22 04:29		SAV	IC6	1	B139010	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209731-04	Client Sample Name: NASA/JPL, MW-14-3, 4/26/2022 9:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00048	mg/L	0.00020	0.000020	EPA-218.6	0.000051		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	50	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	04/26/22 23:00	04/27/22 00:39	SAV	IC-4	1	B138023	No Prep
2	EPA-200.8	04/28/22 10:55	04/29/22 13:28	KHS	PE-EL4	1	B138319	EPA 200.2
3	EPA-200.7	04/28/22 11:00	05/03/22 20:53	JRG	PE-OP4	1	B138315	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-05	Client Sample Name:	NASA/JPL, DUP-2-2Q22, 4/26/2022 9:45:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.38</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>1,1-Dichloroethane</b>	<b>0.22</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-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-05	Client Sample Name:	NASA/JPL, DUP-2-2Q22, 4/26/2022 9:45:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.41</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.63</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209731-05      **Client Sample Name:** NASA/JPL, DUP-2-2Q22, 4/26/2022 9:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22 11:59	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209731-05	Client Sample Name: NASA/JPL, DUP-2-2Q22, 4/26/2022 9:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22	11:59	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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**Reported:** 05/13/2022 14:21  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209731-05	<b>Client Sample Name:</b> NASA/JPL, DUP-2-2Q22, 4/26/2022 9:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22 07:31		ADC	MS-V16	1	B138049	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209731-05							
Client Sample Name:	NASA/JPL, DUP-2-2Q22, 4/26/2022 9:45:00AM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	120	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	44	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	42	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	280	mg/L	10	10	SM-2320B	ND	A10	2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B	ND	A10	2
Total Alkalinity as CaCO <sub>3</sub>	230	mg/L	8.2	8.2	SM-2320B	ND	A10	2
Chloride	110	mg/L	0.50	0.13	EPA-300.0	0.13		3
Nitrate as N	14	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	170	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	8.05	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	740	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	3.7	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/28/22 11:00	05/03/22 20:55		JRG	PE-OP4	1	B138315	EPA 200.2
2	SM-2320B	04/28/22 07:00	04/28/22 18:23		RML	MET-1	2	B138162	No Prep
3	EPA-300.0	04/26/22 23:00	04/27/22 09:45		SAV	IC8	1	B138022	No Prep
4	EPA-150.1	04/28/22 07:00	04/28/22 18:23		RML	MET-1	1	B138162	No Prep
5	EPA-160.1	04/28/22 14:00	04/28/22 14:00		CAD	MANUAL	3.333	B138318	No Prep
6	EPA-353.2	04/27/22 10:03	04/27/22 10:07		MC1	KONE-1	1	B138325	No Prep
7	EPA-314.0	05/05/22 23:30	05/06/22 05:16		SAV	IC6	1	B139010	No Prep

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209731-05	Client Sample Name: NASA/JPL, DUP-2-2Q22, 4/26/2022 9:45:00AM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00036	mg/L	0.00020	0.000020	EPA-218.6	0.000051		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	48	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	04/26/22 23:00	04/27/22 00:48		SAV	IC-4	1	B138023	No Prep
2	EPA-200.8	04/28/22 10:55	04/29/22 13:30		KHS	PE-EL4	1	B138319	EPA 200.2
3	EPA-200.7	04/28/22 11:00	05/03/22 20:55		JRG	PE-OP4	1	B138315	EPA 200.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-06	Client Sample Name:	NASA/JPL, MW-14-2, 4/26/2022 10:45:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>0.40</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209731-06      **Client Sample Name:** NASA/JPL, MW-14-2, 4/26/2022 10:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209731-06      **Client Sample Name:** NASA/JPL, MW-14-2, 4/26/2022 10:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22 12:24	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



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 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209731-06	Client Sample Name: NASA/JPL, MW-14-2, 4/26/2022 10:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22	12:24	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
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### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209731-06	Client Sample Name: NASA/JPL, MW-14-2, 4/26/2022 10:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22 07:57		ADC	MS-V16	1	B138049	EPA 524.2

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209731-06							
Client Sample Name:	NASA/JPL, MW-14-2, 4/26/2022 10:45:00AM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	120	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	39	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	33	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.3	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	310	mg/L	10	10	SM-2320B	ND	A10	2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B	ND	A10	2
Total Alkalinity as CaCO <sub>3</sub>	250	mg/L	8.2	8.2	SM-2320B	ND	A10	2
Chloride	120	mg/L	0.50	0.13	EPA-300.0	0.13		3
Nitrate as N	11	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	190	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	8.01	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	780	mg/L	50	25	EPA-160.1	ND	A10	5
Nitrite as N	0.93	mg/L	0.25	0.050	EPA-353.2	ND	A10	6
Perchlorate	3.3	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/28/22 11:00	05/03/22 20:58		JRG	PE-OP4	1	B138315	EPA 200.2
2	SM-2320B	04/28/22 07:00	04/28/22 18:30		RML	MET-1	2	B138162	No Prep
3	EPA-300.0	04/26/22 23:00	04/27/22 10:06		SAV	IC8	1	B138022	No Prep
4	EPA-150.1	04/28/22 07:00	04/28/22 18:30		RML	MET-1	1	B138162	No Prep
5	EPA-160.1	04/28/22 14:00	04/28/22 14:00		CAD	MANUAL	5	B138318	No Prep
6	EPA-353.2	04/27/22 10:03	04/27/22 10:15		MC1	KONE-1	5	B138325	No Prep
7	EPA-314.0	05/05/22 23:30	05/06/22 05:31		SAV	IC6	1	B139010	No Prep

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209731-06	Client Sample Name: NASA/JPL, MW-14-2, 4/26/2022 10:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0013	mg/L	0.00020	0.000020	EPA-218.6	0.000051		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	140	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	0.17	ug/L	1.0	0.10	EPA-200.8	ND	J	2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	04/26/22 23:00	04/27/22 00:58		SAV	IC-4	1	B138023	No Prep
2	EPA-200.8	04/28/22 10:55	04/29/22 13:32		KHS	PE-EL4	1	B138319	EPA 200.2
3	EPA-200.7	04/28/22 11:00	05/03/22 20:58		JRG	PE-OP4	1	B138315	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-07	Client Sample Name:	NASA/JPL, MW-21-5, 4/26/2022 12:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>3.8</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-07	Client Sample Name:	NASA/JPL, MW-21-5, 4/26/2022 12:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.23</b>	<b>EPA-524.2</b>	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209731-07	Client Sample Name: NASA/JPL, MW-21-5, 4/26/2022 12:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22 12:48	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209731-07	Client Sample Name: NASA/JPL, MW-21-5, 4/26/2022 12:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22	12:48	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209731-07	Client Sample Name: NASA/JPL, MW-21-5, 4/26/2022 12:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22	08:24	ADC	MS-V16	1	B138049	EPA 524.2

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209731-07	Client Sample Name:	NASA/JPL, MW-21-5, 4/26/2022 12:45:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	74	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	22	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	28	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	83	mg/L	0.50	0.13	EPA-300.0	0.13		3
Nitrate as N	8.5	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	120	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	8.12	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	580	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	2.6	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/28/22 11:00	05/03/22 21:00		JRG	PE-OP4	1	B138315	EPA 200.2
2	SM-2320B	04/28/22 07:00	04/28/22 18:37		RML	MET-1	1	B138162	No Prep
3	EPA-300.0	04/26/22 23:00	04/27/22 11:28		MKB	IC8	1	B138022	No Prep
4	EPA-150.1	04/28/22 07:00	04/28/22 18:37		RML	MET-1	1	B138162	No Prep
5	EPA-160.1	04/28/22 14:00	04/28/22 14:00		CAD	MANUAL	3.333	B138318	No Prep
6	EPA-353.2	04/27/22 10:03	04/27/22 10:07		MC1	KONE-1	1	B138325	No Prep
7	EPA-314.0	05/05/22 23:30	05/06/22 05:46		SAV	IC6	1	B139010	No Prep

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209731-07	Client Sample Name: NASA/JPL, MW-21-5, 4/26/2022 12:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0015	mg/L	0.00020	0.000020	EPA-218.6	0.000051		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	0.61	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	04/26/22 23:00	04/27/22	01:07	SAV	IC-4	1	B138023	No Prep
2	EPA-200.8	04/28/22 10:55	04/29/22	13:34	KHS	PE-EL4	1	B138319	EPA 200.2
3	EPA-200.7	04/28/22 11:00	05/03/22	21:00	JRG	PE-OP4	1	B138315	EPA 200.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-08	Client Sample Name:	NASA/JPL, MW-21-4, 4/26/2022 12:15:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>4.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-08	Client Sample Name:	NASA/JPL, MW-21-4, 4/26/2022 12:15:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.77</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.46</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209731-08	Client Sample Name: NASA/JPL, MW-21-4, 4/26/2022 12:15:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22 13:13	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number





Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209731-08	Client Sample Name: NASA/JPL, MW-21-4, 4/26/2022 12:15:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22	13:13	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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**Reported:** 05/13/2022 14:21  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209731-08	<b>Client Sample Name:</b> NASA/JPL, MW-21-4, 4/26/2022 12:15:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22 08:50	ADC	MS-V16	1	B138049	EPA 524.2

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209731-08	Client Sample Name:	NASA/JPL, MW-21-4, 4/26/2022 12:15:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	110	mg/L	0.10	0.014	EPA-200.7	ND		1	
Total Recoverable Magnesium	31	mg/L	0.050	0.019	EPA-200.7	ND		1	
Total Recoverable Sodium	33	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	2.7	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	240	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	200	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	92	mg/L	0.50	0.13	EPA-300.0	0.13		3	
Nitrate as N	8.7	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	130	mg/L	1.0	0.14	EPA-300.0	0.24		3	
pH	7.96	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	640	mg/L	33	17	EPA-160.1	ND	A10	5	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6	
Perchlorate	2.6	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/28/22 11:00	05/03/22 21:02		JRG	PE-OP4	1	B138315	EPA 200.2
2	SM-2320B	04/28/22 07:00	04/28/22 18:44		RML	MET-1	1	B138162	No Prep
3	EPA-300.0	04/26/22 23:00	04/27/22 11:48		MKB	IC8	1	B138022	No Prep
4	EPA-150.1	04/28/22 07:00	04/28/22 18:44		RML	MET-1	1	B138162	No Prep
5	EPA-160.1	04/28/22 14:00	04/28/22 14:00		CAD	MANUAL	3.333	B138318	No Prep
6	EPA-353.2	04/27/22 10:03	04/27/22 10:07		MC1	KONE-1	1	B138325	No Prep
7	EPA-314.0	05/05/22 23:30	05/06/22 06:02		SAV	IC6	1	B139010	No Prep

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209731-08	Client Sample Name: NASA/JPL, MW-21-4, 4/26/2022 12:15:00PM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00028	mg/L	0.00020	0.000020	EPA-218.6	0.000051		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	0.98	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	47	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	04/26/22 23:00	04/27/22 01:17	SAV	IC-4	1	B138023	No Prep
2	EPA-200.8	04/28/22 10:55	04/29/22 13:36	KHS	PE-EL4	1	B138319	EPA 200.2
3	EPA-200.7	04/28/22 11:00	05/03/22 21:02	JRG	PE-OP4	1	B138315	EPA 200.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209731-09      **Client Sample Name:** NASA/JPL, MW-21-3, 4/26/2022 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.32</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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 Powell, OH 43065

Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-09	Client Sample Name:	NASA/JPL, MW-21-3, 4/26/2022 1:15:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.44</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.75</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209731-09      **Client Sample Name:** NASA/JPL, MW-21-3, 4/26/2022 1:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22 13:38	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209731-09	Client Sample Name: NASA/JPL, MW-21-3, 4/26/2022 1:15:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22	13:38	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number





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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209731-09	Client Sample Name: NASA/JPL, MW-21-3, 4/26/2022 1:15:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22 09:16	ADC	MS-V16	1	B138049	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209731-09							
Client Sample Name:	NASA/JPL, MW-21-3, 4/26/2022 1:15:00PM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	140	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	40	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	54	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	3.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	360	mg/L	10	10	SM-2320B	ND	A10	2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B	ND	A10	2
Total Alkalinity as CaCO <sub>3</sub>	300	mg/L	8.2	8.2	SM-2320B	ND	A10	2
Chloride	120	mg/L	0.50	0.13	EPA-300.0	0.13		3
Nitrate as N	10	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	160	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	7.91	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	820	mg/L	50	25	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	2.8	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/28/22 11:00	05/03/22 21:04		JRG	PE-OP4	1	B138315	EPA 200.2
2	SM-2320B	04/28/22 07:00	04/28/22 18:52		RML	MET-1	2	B138162	No Prep
3	EPA-300.0	04/26/22 23:00	04/27/22 12:09		MKB	IC8	1	B138022	No Prep
4	EPA-150.1	04/28/22 07:00	04/28/22 18:52		RML	MET-1	1	B138162	No Prep
5	EPA-160.1	04/28/22 14:00	04/28/22 14:00		CAD	MANUAL	5	B138318	No Prep
6	EPA-353.2	04/27/22 10:03	04/27/22 10:07		MC1	KONE-1	1	B138325	No Prep
7	EPA-314.0	05/05/22 23:30	05/06/22 06:17		SAV	IC6	1	B139010	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209731-09	Client Sample Name: NASA/JPL, MW-21-3, 4/26/2022 1:15:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00028	mg/L	0.00020	0.000020	EPA-218.6	0.000051		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	52	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	04/26/22 23:00	04/27/22 02:13		SAV	IC-4	1	B138023	No Prep
2	EPA-200.8	04/28/22 10:55	04/29/22 13:38		KHS	PE-EL4	1	B138319	EPA 200.2
3	EPA-200.7	04/28/22 11:00	05/03/22 21:04		JRG	PE-OP4	1	B138315	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209731-10      **Client Sample Name:** NASA/JPL, MW-21-2, 4/26/2022 1:45:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.36</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-10	Client Sample Name:	NASA/JPL, MW-21-2, 4/26/2022 1:45:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.61</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209731-10      **Client Sample Name:** NASA/JPL, MW-21-2, 4/26/2022 1:45:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/27/22 08:36	04/27/22 14:26	MGC	MS-V5	1	B138000	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209731-10	Client Sample Name: NASA/JPL, MW-21-2, 4/26/2022 1:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/27/22 08:36	04/27/22	14:26	MGC	MS-V5	1	B138000	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/13/2022 14:21  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209731-10	<b>Client Sample Name:</b> NASA/JPL, MW-21-2, 4/26/2022 1:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/27/22	21:27	ADC	MS-V16	1	B138050	EPA 524.2

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209731-10	Client Sample Name:	NASA/JPL, MW-21-2, 4/26/2022 1:45:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	160	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	50	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	62	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	3.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	380	mg/L	10	10	SM-2320B	ND	A10	2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B	ND	A10	2
Total Alkalinity as CaCO <sub>3</sub>	310	mg/L	8.2	8.2	SM-2320B	ND	A10	2
Chloride	180	mg/L	1.0	0.26	EPA-300.0	0.30	A10	3
Nitrate as N	5.1	mg/L	0.10	0.024	EPA-300.0	ND		4
Sulfate	170	mg/L	1.0	0.14	EPA-300.0	0.31		4
pH	7.91	pH Units	0.05	0.05	EPA-150.1		S05	5
Total Dissolved Solids @ 180 C	900	mg/L	50	25	EPA-160.1	ND	A10	6
Nitrite as N	0.041	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Perchlorate	1.7	ug/L	2.0	0.81	EPA-314.0	ND	J	8

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/28/22 11:00	05/03/22	21:06	JRG	PE-OP4	1	B138315	EPA 200.2
2	SM-2320B	04/28/22 07:00	04/28/22	18:09	RML	MET-1	2	B138162	No Prep
3	EPA-300.0	04/26/22 23:00	04/27/22	17:33	MKB	IC2	2	B138020	No Prep
4	EPA-300.0	04/26/22 23:00	04/27/22	07:44	SAV	IC2	1	B138020	No Prep
5	EPA-150.1	04/28/22 07:00	04/28/22	18:09	RML	MET-1	1	B138162	No Prep
6	EPA-160.1	04/28/22 14:00	04/28/22	14:00	CAD	MANUAL	5	B138318	No Prep
7	EPA-353.2	04/27/22 09:44	04/27/22	09:44	MC1	KONE-1	1	B138324	No Prep
8	EPA-314.0	05/05/22 23:30	05/06/22	06:32	SAV	IC6	1	B139010	No Prep

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209731-10	Client Sample Name: NASA/JPL, MW-21-2, 4/26/2022 1:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00010	mg/L	0.00020	0.000020	EPA-218.6	0.000051	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	84	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	04/26/22 23:00	04/27/22	02:01	SAV	IC-4	1	B138023	No Prep
2	EPA-200.8	04/28/22 10:55	04/29/22	13:06	KHS	PE-EL4	1	B138319	EPA 200.2
3	EPA-200.7	04/28/22 11:00	05/03/22	21:06	JRG	PE-OP4	1	B138315	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-11	Client Sample Name:	NASA/JPL, EB-2-042622, 4/26/2022 2:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209731-11	Client Sample Name:	NASA/JPL, EB-2-042622, 4/26/2022 2:45:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
<b>Toluene</b>	<b>0.39</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.17</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209731-11	<b>Client Sample Name:</b> NASA/JPL, EB-2-042622, 4/26/2022 2:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V01	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22 14:51	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209731-11	Client Sample Name: NASA/JPL, EB-2-042622, 4/26/2022 2:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	04/27/22 07:00	04/27/22	14:51	MGC	MS-V5	1	B137999	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209731-11	Client Sample Name: NASA/JPL, EB-2-042622, 4/26/2022 2:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	04/27/22 06:00	04/28/22 09:43		ADC	MS-V16	1	B138049	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209731-11	Client Sample Name:	NASA/JPL, EB-2-042622, 4/26/2022 2:45:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	0.15	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	0.058	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	ND	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	ND	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	0.14	mg/L	0.50	0.13	EPA-300.0	0.13	J	3
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	0.24	mg/L	1.0	0.14	EPA-300.0	0.24	J	3
pH	6.22	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	4.0	mg/L	6.7	3.3	EPA-160.1	ND	J	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/28/22 11:00	05/03/22 21:09		JRG	PE-OP4	1	B138315	EPA 200.2
2	SM-2320B	04/28/22 07:00	04/28/22 19:01		RML	MET-1	1	B138162	No Prep
3	EPA-300.0	04/26/22 23:00	04/27/22 11:07		SAV	IC8	1	B138022	No Prep
4	EPA-150.1	04/28/22 07:00	04/28/22 19:01		RML	MET-1	1	B138162	No Prep
5	EPA-160.1	04/28/22 14:00	04/28/22 14:00		CAD	MANUAL	0.667	B138318	No Prep
6	EPA-353.2	04/27/22 10:03	04/27/22 10:07		MC1	KONE-1	1	B138325	No Prep
7	EPA-314.0	05/05/22 23:30	05/06/22 06:48		SAV	IC6	1	B139010	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209731-11	Client Sample Name: NASA/JPL, EB-2-042622, 4/26/2022 2:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00025	mg/L	0.00020	0.000020	EPA-218.6	0.000051		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	04/26/22 23:00	04/27/22 00:10	SAV	IC-4	1	B138023	No Prep
2	EPA-200.8	04/28/22 10:55	04/29/22 13:40	KHS	PE-EL4	1	B138319	EPA 200.2
3	EPA-200.7	04/28/22 11:00	05/03/22 21:09	JRG	PE-OP4	1	B138315	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B137999</b>						
Benzene	B137999-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B137999-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B137999-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B137999-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B137999-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B137999-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B137999-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B137999-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B137999-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B137999-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B137999-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B137999-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B137999-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B137999-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B137999-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B137999-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B137999-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B137999-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B137999-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B137999-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B137999-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B137999-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B137999-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B137999-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B137999-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B137999-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B137999-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B137999-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B137999-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B137999-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B137999-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B137999-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B137999-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B137999-BLK1	ND	ug/L	0.50	0.14	

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B137999</b>						
trans-1,3-Dichloropropene	B137999-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B137999-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B137999-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B137999-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B137999-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B137999-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B137999-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B137999-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B137999-BLK1	ND	ug/L	0.50	0.12	
Styrene	B137999-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B137999-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B137999-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B137999-BLK1	ND	ug/L	0.50	0.23	
Toluene	B137999-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B137999-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B137999-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B137999-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B137999-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B137999-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B137999-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B137999-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B137999-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B137999-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B137999-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B137999-BLK1	ND	ug/L	0.50	0.18	
Acetone	B137999-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B137999-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B137999-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B137999-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B137999-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B137999-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B137999-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B137999-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B137999-BLK1	ND	ug/L	4.0	1.3	

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 Project Number: 2Q22  
 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: B137999</b>						
Ethyl t-butyl ether	B137999-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B137999-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B137999-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B137999-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B137999-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B137999-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B137999-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B137999-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B137999-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B137999-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B137999-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B137999-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B137999-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B137999-BLK1</b>	<b>97.0</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B137999-BLK1</b>	<b>97.7</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B137999-BLK1</b>	<b>90.7</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>QC Batch ID: B138000</b>						
Benzene	B138000-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B138000-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B138000-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B138000-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B138000-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B138000-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B138000-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B138000-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B138000-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B138000-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B138000-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B138000-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B138000-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B138000-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B138000-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B138000-BLK1	ND	ug/L	0.50	0.093	

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Tidewater Inc. - Powell  
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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138000</b>						
Dibromochloromethane	B138000-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B138000-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B138000-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B138000-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B138000-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B138000-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B138000-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B138000-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B138000-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B138000-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B138000-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B138000-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B138000-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B138000-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B138000-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B138000-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B138000-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B138000-BLK1	ND	ug/L	0.50	0.14	
trans-1,3-Dichloropropene	B138000-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B138000-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B138000-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B138000-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B138000-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B138000-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B138000-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B138000-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B138000-BLK1	ND	ug/L	0.50	0.12	
Styrene	B138000-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B138000-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B138000-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B138000-BLK1	ND	ug/L	0.50	0.23	
Toluene	B138000-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B138000-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B138000-BLK1	ND	ug/L	0.50	0.15	

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138000</b>						
1,1,1-Trichloroethane	B138000-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B138000-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B138000-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B138000-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B138000-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B138000-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B138000-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B138000-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B138000-BLK1	ND	ug/L	0.50	0.18	
Acetone	B138000-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B138000-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B138000-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B138000-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B138000-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B138000-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B138000-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B138000-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B138000-BLK1	ND	ug/L	4.0	1.3	
Ethyl t-butyl ether	B138000-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B138000-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B138000-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B138000-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B138000-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B138000-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B138000-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B138000-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B138000-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B138000-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B138000-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B138000-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B138000-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B138000-BLK1</b>	<b>96.8</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B138000-BLK1</b>	<b>98.6</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B138000-BLK1</b>	<b>92.6</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B137999</b>										
Benzene	B137999-BS1	LCS	25.170	25.000	ug/L	101		70 - 130		
Bromodichloromethane	B137999-BS1	LCS	25.130	25.000	ug/L	101		70 - 130		
Chlorobenzene	B137999-BS1	LCS	24.370	25.000	ug/L	97.5		70 - 130		
Chloroethane	B137999-BS1	LCS	23.970	25.000	ug/L	95.9		70 - 130		
1,4-Dichlorobenzene	B137999-BS1	LCS	23.180	25.000	ug/L	92.7		70 - 130		
1,1-Dichloroethane	B137999-BS1	LCS	25.020	25.000	ug/L	100		70 - 130		
1,1-Dichloroethene	B137999-BS1	LCS	25.690	25.000	ug/L	103		70 - 130		
Toluene	B137999-BS1	LCS	24.290	25.000	ug/L	97.2		70 - 130		
Trichloroethene	B137999-BS1	LCS	25.280	25.000	ug/L	101		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B137999-BS1	LCS	9.5900	10.000	ug/L	95.9		75 - 125		
Toluene-d8 (Surrogate)	B137999-BS1	LCS	10.100	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	B137999-BS1	LCS	9.3900	10.000	ug/L	93.9		80 - 120		
<b>QC Batch ID: B138000</b>										
Benzene	B138000-BS1	LCS	22.860	25.000	ug/L	91.4		70 - 130		
Bromodichloromethane	B138000-BS1	LCS	23.500	25.000	ug/L	94.0		70 - 130		
Chlorobenzene	B138000-BS1	LCS	23.050	25.000	ug/L	92.2		70 - 130		
Chloroethane	B138000-BS1	LCS	24.030	25.000	ug/L	96.1		70 - 130		
1,4-Dichlorobenzene	B138000-BS1	LCS	22.710	25.000	ug/L	90.8		70 - 130		
1,1-Dichloroethane	B138000-BS1	LCS	23.920	25.000	ug/L	95.7		70 - 130		
1,1-Dichloroethene	B138000-BS1	LCS	24.150	25.000	ug/L	96.6		70 - 130		
Toluene	B138000-BS1	LCS	22.670	25.000	ug/L	90.7		70 - 130		
Trichloroethene	B138000-BS1	LCS	23.950	25.000	ug/L	95.8		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B138000-BS1	LCS	9.7000	10.000	ug/L	97.0		75 - 125		
Toluene-d8 (Surrogate)	B138000-BS1	LCS	9.9100	10.000	ug/L	99.1		80 - 120		
4-Bromofluorobenzene (Surrogate)	B138000-BS1	LCS	9.7300	10.000	ug/L	97.3		80 - 120		

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B137999</b>		Used client sample: Y - Description: MW-14-4, 04/26/2022 08:30									
Benzene	MS	2209731-03	ND	22.800	25.000	ug/L		91.2		70 - 130	
	MSD	2209731-03	ND	22.890	25.000	ug/L	0.4	91.6	20	70 - 130	
Bromodichloromethane	MS	2209731-03	ND	23.770	25.000	ug/L		95.1		70 - 130	
	MSD	2209731-03	ND	23.200	25.000	ug/L	2.4	92.8	20	70 - 130	
Chlorobenzene	MS	2209731-03	ND	22.290	25.000	ug/L		89.2		70 - 130	
	MSD	2209731-03	ND	22.740	25.000	ug/L	2.0	91.0	20	70 - 130	
Chloroethane	MS	2209731-03	ND	22.940	25.000	ug/L		91.8		70 - 130	
	MSD	2209731-03	ND	23.800	25.000	ug/L	3.7	95.2	20	70 - 130	
1,4-Dichlorobenzene	MS	2209731-03	ND	21.880	25.000	ug/L		87.5		70 - 130	
	MSD	2209731-03	ND	22.340	25.000	ug/L	2.1	89.4	20	70 - 130	
1,1-Dichloroethane	MS	2209731-03	ND	23.360	25.000	ug/L		93.4		70 - 130	
	MSD	2209731-03	ND	23.530	25.000	ug/L	0.7	94.1	20	70 - 130	
1,1-Dichloroethene	MS	2209731-03	ND	24.010	25.000	ug/L		96.0		70 - 130	
	MSD	2209731-03	ND	24.180	25.000	ug/L	0.7	96.7	20	70 - 130	
Toluene	MS	2209731-03	ND	22.660	25.000	ug/L		90.6		70 - 130	
	MSD	2209731-03	ND	22.500	25.000	ug/L	0.7	90.0	20	70 - 130	
Trichloroethene	MS	2209731-03	ND	23.440	25.000	ug/L		93.8		70 - 130	
	MSD	2209731-03	ND	23.270	25.000	ug/L	0.7	93.1	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2209731-03	ND	9.7500	10.000	ug/L		97.5		75 - 125	
	MSD	2209731-03	ND	9.8000	10.000	ug/L	0.5	98.0		75 - 125	
Toluene-d8 (Surrogate)	MS	2209731-03	ND	10.050	10.000	ug/L		100		80 - 120	
	MSD	2209731-03	ND	9.9300	10.000	ug/L	1.2	99.3		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2209731-03	ND	9.7400	10.000	ug/L		97.4		80 - 120	
	MSD	2209731-03	ND	10.110	10.000	ug/L	3.7	101		80 - 120	

<b>QC Batch ID: B138000</b>		Used client sample: Y - Description: MW-21-2, 04/26/2022 13:45									
Benzene	MS	2209731-10	ND	22.630	25.000	ug/L		90.5		70 - 130	
	MSD	2209731-10	ND	23.290	25.000	ug/L	2.9	93.2	20	70 - 130	
Bromodichloromethane	MS	2209731-10	ND	22.810	25.000	ug/L		91.2		70 - 130	
	MSD	2209731-10	ND	23.610	25.000	ug/L	3.4	94.4	20	70 - 130	
Chlorobenzene	MS	2209731-10	ND	22.410	25.000	ug/L		89.6		70 - 130	
	MSD	2209731-10	ND	22.600	25.000	ug/L	0.8	90.4	20	70 - 130	
Chloroethane	MS	2209731-10	ND	23.930	25.000	ug/L		95.7		70 - 130	
	MSD	2209731-10	ND	24.540	25.000	ug/L	2.5	98.2	20	70 - 130	
1,4-Dichlorobenzene	MS	2209731-10	ND	22.620	25.000	ug/L		90.5		70 - 130	
	MSD	2209731-10	ND	22.750	25.000	ug/L	0.6	91.0	20	70 - 130	
1,1-Dichloroethane	MS	2209731-10	ND	23.620	25.000	ug/L		94.5		70 - 130	
	MSD	2209731-10	ND	24.290	25.000	ug/L	2.8	97.2	20	70 - 130	

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B138000</b>		Used client sample: Y - Description: MW-21-2, 04/26/2022 13:45									
1,1-Dichloroethene	MS	2209731-10	ND	23.900	25.000	ug/L		95.6		70 - 130	
	MSD	2209731-10	ND	24.440	25.000	ug/L	2.2	97.8	20	70 - 130	
Toluene	MS	2209731-10	ND	22.070	25.000	ug/L		88.3		70 - 130	
	MSD	2209731-10	ND	22.510	25.000	ug/L	2.0	90.0	20	70 - 130	
Trichloroethene	MS	2209731-10	ND	22.420	25.000	ug/L		89.7		70 - 130	
	MSD	2209731-10	ND	23.240	25.000	ug/L	3.6	93.0	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2209731-10	ND	10.130	10.000	ug/L		101		75 - 125	
	MSD	2209731-10	ND	10.350	10.000	ug/L	2.1	104		75 - 125	
Toluene-d8 (Surrogate)	MS	2209731-10	ND	9.8300	10.000	ug/L		98.3		80 - 120	
	MSD	2209731-10	ND	9.9400	10.000	ug/L	1.1	99.4		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2209731-10	ND	9.8500	10.000	ug/L		98.5		80 - 120	
	MSD	2209731-10	ND	9.6500	10.000	ug/L	2.1	96.5		80 - 120	

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Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B137999</b>						
Nitrobenzene	B137999-BLK1	0	ug/L			
Methyl acrylate	B137999-BLK1	0	ug/L			
Chloroacetonitrile	B137999-BLK1	0	ug/L			
2-Nitropropane	B137999-BLK1	0	ug/L			
1-Chlorobutane	B137999-BLK1	0	ug/L			
1,1-Dichloropropanone	B137999-BLK1	0	ug/L			
<b>QC Batch ID: B138000</b>						
Nitrobenzene	B138000-BLK1	0	ug/L			
Methyl acrylate	B138000-BLK1	0	ug/L			
Chloroacetonitrile	B138000-BLK1	0	ug/L			
2-Nitropropane	B138000-BLK1	0	ug/L			
1-Chlorobutane	B138000-BLK1	0	ug/L			
1,1-Dichloropropanone	B138000-BLK1	0	ug/L			

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:21  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B138049</b>						
1,2,3-Trichloropropane	B138049-BLK1	ND	ug/L	0.0050	0.0010	
<b>QC Batch ID: B138050</b>						
1,2,3-Trichloropropane	B138050-BLK1	ND	ug/L	0.0050	0.0010	

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Reported: 05/13/2022 14:21  
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 Project Number: 2Q22  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### 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: B138049</b>										
1,2,3-Trichloropropane	B138049-BS1	LCS	0.040120	0.050000	ug/L	80.2		80 - 120		
<b>QC Batch ID: B138050</b>										
1,2,3-Trichloropropane	B138050-BS1	LCS	0.053000	0.050000	ug/L	106		80 - 120		

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 Project Number: 2Q22  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B138049</b>		Used client sample: Y - Description: MW-14-4, 04/26/2022 08:30									
1,2,3-Trichloropropane	MS	2209731-03	ND	0.042760	0.050000	ug/L		85.5		70 - 130	
	MSD	2209731-03	ND	0.046780	0.050000	ug/L	9.0	93.6	30	70 - 130	
<b>QC Batch ID: B138050</b>		Used client sample: Y - Description: MW-21-2, 04/26/2022 13:45									
1,2,3-Trichloropropane	MS	2209731-10	ND	0.044900	0.050000	ug/L		89.8		70 - 130	
	MSD	2209731-10	ND	0.047950	0.050000	ug/L	6.6	95.9	30	70 - 130	

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 Project Number: 2Q22  
 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: B135825</b>						
Bicarbonate	B135825-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B135825-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B135825-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138020</b>						
Chloride	B138020-BLK1	0.15000	mg/L	0.50	0.13	J
Nitrate as N	B138020-BLK1	ND	mg/L	0.10	0.024	
Sulfate	B138020-BLK1	0.30700	mg/L	1.0	0.14	J
<b>QC Batch ID: B138022</b>						
Chloride	B138022-BLK1	0.13000	mg/L	0.50	0.13	J
Nitrate as N	B138022-BLK1	ND	mg/L	0.10	0.024	
Sulfate	B138022-BLK1	0.24000	mg/L	1.0	0.14	J
<b>QC Batch ID: B138162</b>						
Bicarbonate	B138162-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138162-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138162-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138315</b>						
Total Recoverable Calcium	B138315-BLK1	ND	mg/L	0.10	0.014	
Total Recoverable Magnesium	B138315-BLK1	ND	mg/L	0.050	0.019	
Total Recoverable Sodium	B138315-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B138315-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B138318</b>						
Total Dissolved Solids @ 180 C	B138318-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B138324</b>						
Nitrite as N	B138324-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B138325</b>						
Nitrite as N	B138325-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B139010</b>						
Perchlorate	B139010-BLK1	ND	ug/L	2.0	0.81	

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 Project Number: 2Q22  
 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: B135825</b>										
Total Alkalinity as CaCO3	B135825-BS3	LCS	102.09	100.00	mg/L	102		90 - 110		
	B135825-BSD3	LCSD	99.690	100.00	mg/L	99.7	2.4	90 - 110		10
pH	B135825-BS2	LCS	7.0100	7.0000	pH Units	100		95 - 105		
	B135825-BSD2	LCSD	7.0100	7.0000	pH Units	100	0	95 - 105		200
<b>QC Batch ID: B138020</b>										
Chloride	B138020-BS1	LCS	50.899	50.000	mg/L	102		90 - 110		
Nitrate as N	B138020-BS1	LCS	5.1620	5.0000	mg/L	103		90 - 110		
Sulfate	B138020-BS1	LCS	100.40	100.00	mg/L	100		90 - 110		
<b>QC Batch ID: B138022</b>										
Chloride	B138022-BS1	LCS	52.789	50.000	mg/L	106		90 - 110		
Nitrate as N	B138022-BS1	LCS	5.2150	5.0000	mg/L	104		90 - 110		
Sulfate	B138022-BS1	LCS	103.31	100.00	mg/L	103		90 - 110		
<b>QC Batch ID: B138162</b>										
Total Alkalinity as CaCO3	B138162-BS3	LCS	99.540	100.00	mg/L	99.5		90 - 110		
	B138162-BSD3	LCSD	98.040	100.00	mg/L	98.0	1.5	90 - 110		10
pH	B138162-BS2	LCS	7.0100	7.0000	pH Units	100		95 - 105		
	B138162-BSD2	LCSD	7.0100	7.0000	pH Units	100	0	95 - 105		200
<b>QC Batch ID: B138315</b>										
Total Recoverable Calcium	B138315-BS1	LCS	9.9662	10.000	mg/L	99.7		85 - 115		
Total Recoverable Magnesium	B138315-BS1	LCS	9.7515	10.000	mg/L	97.5		85 - 115		
Total Recoverable Sodium	B138315-BS1	LCS	9.7282	10.000	mg/L	97.3		85 - 115		
Total Recoverable Potassium	B138315-BS1	LCS	9.8634	10.000	mg/L	98.6		85 - 115		
<b>QC Batch ID: B138318</b>										
Total Dissolved Solids @ 180 C	B138318-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
	B138318-BSD1	LCSD	575.00	586.00	mg/L	98.1	2.6	90 - 110		200
<b>QC Batch ID: B138324</b>										
Nitrite as N	B138324-BS1	LCS	0.48409	0.50000	mg/L	96.8		90 - 110		
<b>QC Batch ID: B138325</b>										
Nitrite as N	B138325-BS1	LCS	0.48579	0.50000	mg/L	97.2		90 - 110		
<b>QC Batch ID: B139010</b>										
Perchlorate	B139010-BS1	LCS	8.8797	10.000	ug/L	88.8		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			
								Percent Recovery	RPD	Percent Recovery	Lab Quails
<b>QC Batch ID: B135825</b>		Used client sample: Y - Description: MW-14-4, 04/26/2022 08:30									
Bicarbonate	DUP	2209731-03	190.20	190.93		mg/L	0.4			10	
Carbonate	DUP	2209731-03	ND	ND		mg/L				10	
Total Alkalinity as CaCO3	DUP	2209731-03	155.99	156.59		mg/L	0.4			10	
pH	DUP	2209731-03	8.2200	8.2300		pH Units	0.1			20	
<b>QC Batch ID: B138020</b>		Used client sample: Y - Description: MW-21-2, 04/26/2022 13:45									
Chloride	DUP	'209731-10RE'	178.93	181.61		mg/L	1.5			10	
	MS	'209731-10RE'	178.93	285.19	101.01	mg/L		105			80 - 120
	MSD	'209731-10RE'	178.93	286.54	101.01	mg/L	0.5	107	10		80 - 120
Nitrate as N	DUP	'209731-10RE'	4.9260	4.8200		mg/L	2.2			10	
	MS	'209731-10RE'	4.9260	15.457	10.101	mg/L		104			80 - 120
	MSD	'209731-10RE'	4.9260	15.438	10.101	mg/L	0.1	104	10		80 - 120
Sulfate	DUP	'209731-10RE'	162.92	165.07		mg/L	1.3			10	
	MS	'209731-10RE'	162.92	385.95	202.02	mg/L		110			80 - 120
	MSD	'209731-10RE'	162.92	385.72	202.02	mg/L	0.1	110	10		80 - 120
<b>QC Batch ID: B138022</b>		Used client sample: Y - Description: MW-14-4, 04/26/2022 08:30									
Chloride	DUP	2209731-03	49.338	49.435		mg/L	0.2			10	
	MS	2209731-03	49.338	104.80	50.505	mg/L		110			80 - 120
	MSD	2209731-03	49.338	105.07	50.505	mg/L	0.3	110	10		80 - 120
Nitrate as N	DUP	2209731-03	10.546	10.436		mg/L	1.0			10	
	MS	2209731-03	10.546	15.766	5.0505	mg/L		103			80 - 120
	MSD	2209731-03	10.546	15.797	5.0505	mg/L	0.2	104	10		80 - 120
Sulfate	DUP	2209731-03	48.692	48.546		mg/L	0.3			10	
	MS	2209731-03	48.692	160.40	101.01	mg/L		111			80 - 120
	MSD	2209731-03	48.692	160.59	101.01	mg/L	0.1	111	10		80 - 120
<b>QC Batch ID: B138162</b>		Used client sample: Y - Description: MW-21-2, 04/26/2022 13:45									
Bicarbonate	DUP	2209731-10	382.94	385.15		mg/L	0.6			10	
Carbonate	DUP	2209731-10	ND	ND		mg/L				10	
Total Alkalinity as CaCO3	DUP	2209731-10	314.07	315.88		mg/L	0.6			10	
pH	DUP	2209731-10	7.9100	7.9000		pH Units	0.1			20	
<b>QC Batch ID: B138315</b>		Used client sample: Y - Description: MW-14-5, 04/26/2022 07:45									
Total Recoverable Calcium	DUP	2209731-02	18.233	18.472		mg/L	1.3			20	
	MS	2209731-02	18.233	27.765	10.000	mg/L		95.3			75 - 125
	MSD	2209731-02	18.233	28.989	10.000	mg/L	4.3	108	20		75 - 125
Total Recoverable Magnesium	DUP	2209731-02	11.865	12.141		mg/L	2.3			20	
	MS	2209731-02	11.865	21.767	10.000	mg/L		99.0			75 - 125
	MSD	2209731-02	11.865	23.158	10.000	mg/L	6.2	113	20		75 - 125

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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	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138315</b>		Used client sample: Y - Description: MW-14-5, 04/26/2022 07:45									
Total Recoverable Sodium	DUP	2209731-02	31.251	31.369		mg/L	0.4		20		
	MS	2209731-02	31.251	40.111	10.000	mg/L		88.6		75 - 125	
	MSD	2209731-02	31.251	42.099	10.000	mg/L	4.8	108	20	75 - 125	
Total Recoverable Potassium	DUP	2209731-02	1.8956	1.8830		mg/L	0.7		20		
	MS	2209731-02	1.8956	11.496	10.000	mg/L		96.0		75 - 125	
	MSD	2209731-02	1.8956	11.889	10.000	mg/L	3.4	99.9	20	75 - 125	
<b>QC Batch ID: B138318</b>		Used client sample: Y - Description: MW-21-2, 04/26/2022 13:45									
Total Dissolved Solids @ 180 C	DUP	2209731-10	900.00	890.00		mg/L	1.1		10		
<b>QC Batch ID: B138324</b>		Used client sample: Y - Description: MW-21-2, 04/26/2022 13:45									
Nitrite as N	DUP	2209731-10	0.040916	0.041576		mg/L	1.6		10		J
	MS	2209731-10	0.040916	0.56870	0.52632	mg/L		100		90 - 110	
	MSD	2209731-10	0.040916	0.57351	0.52632	mg/L	0.8	101	10	90 - 110	
<b>QC Batch ID: B138325</b>		Used client sample: Y - Description: MW-14-4, 04/26/2022 08:30									
Nitrite as N	DUP	2209731-03	ND	ND		mg/L			10		
	MS	2209731-03	ND	0.49957	0.52632	mg/L		94.9		90 - 110	
	MSD	2209731-03	ND	0.49662	0.52632	mg/L	0.6	94.4	10	90 - 110	
<b>QC Batch ID: B139010</b>		Used client sample: Y - Description: MW-14-4, 04/26/2022 08:30									
Perchlorate	DUP	2209731-03	3.4325	3.3855		ug/L	1.4		15		
	MS	2209731-03	3.4325	11.942	10.101	ug/L		84.2		80 - 120	
	MSD	2209731-03	3.4325	11.937	10.101	ug/L	0.0	84.2	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: B138023</b>						
Hexavalent Chromium	B138023-BLK1	0.000051000	mg/L	0.00020	0.000020	J
<b>QC Batch ID: B138315</b>						
Total Recoverable Iron	B138315-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B138319</b>						
Total Recoverable Arsenic	B138319-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B138319-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B138319-BLK1	ND	ug/L	1.0	0.10	

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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: B138023</b>										
Hexavalent Chromium	B138023-BS1	LCS	0.019827	0.020000	mg/L	99.1		90 - 110		
<b>QC Batch ID: B138315</b>										
Total Recoverable Iron	B138315-BS1	LCS	971.36	1000.0	ug/L	97.1		85 - 115		
<b>QC Batch ID: B138319</b>										
Total Recoverable Arsenic	B138319-BS1	LCS	101.50	100.00	ug/L	101		85 - 115		
Total Recoverable Chromium	B138319-BS1	LCS	44.105	40.000	ug/L	110		85 - 115		
Total Recoverable Lead	B138319-BS1	LCS	105.77	100.00	ug/L	106		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	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B138023</b>		Used client sample: Y - Description: MW-21-2, 04/26/2022 13:45									
Hexavalent Chromium	DUP	2209731-10	0.00010400	0.00010800		mg/L	3.8		10		J
	MS	2209731-10	0.00010400	0.020742	0.020202	mg/L		102		90 - 110	
	MSD	2209731-10	0.00010400	0.020577	0.020202	mg/L	0.8	101	10	90 - 110	
<b>QC Batch ID: B138315</b>		Used client sample: Y - Description: MW-14-5, 04/26/2022 07:45									
Total Recoverable Iron	DUP	2209731-02	68.002	60.140		ug/L	12.3		20		
	MS	2209731-02	68.002	1012.0	1000.0	ug/L		94.4		75 - 125	
	MSD	2209731-02	68.002	1086.3	1000.0	ug/L	7.1	102	20	75 - 125	
<b>QC Batch ID: B138319</b>		Used client sample: Y - Description: MW-21-2, 04/26/2022 13:45									
Total Recoverable Arsenic	DUP	2209731-10	ND	ND		ug/L			20		
	MS	2209731-10	ND	119.08	100.00	ug/L		119		70 - 130	
	MSD	2209731-10	ND	113.91	100.00	ug/L	4.4	114	20	70 - 130	
Total Recoverable Chromium	DUP	2209731-10	ND	ND		ug/L			20		
	MS	2209731-10	ND	42.729	40.000	ug/L		107		70 - 130	
	MSD	2209731-10	ND	41.348	40.000	ug/L	3.3	103	20	70 - 130	
Total Recoverable Lead	DUP	2209731-10	ND	ND		ug/L			20		
	MS	2209731-10	ND	109.47	100.00	ug/L		109		70 - 130	
	MSD	2209731-10	ND	104.87	100.00	ug/L	4.3	105	20	70 - 130	

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**Reported:** 05/13/2022 14:21  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A10 Detection and quantitation limits were raised due to matrix interference.
- S05 The sample holding time was exceeded.
- V01 The Initial Calibration Verification (ICV) recovery is not within established control limits.



Date of Report: 05/13/2022

David Conner

Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

Client Project: 2Q22  
BCL Project: JPL- GW Monitoring Wells-CLP  
BCL Work Order: 2209865  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 4/27/2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers  
Client Service Rep

Stuart Buttram  
Operations Manager

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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# Chain of Custody Form

**BC Laboratories, Inc.**

22-09865

Page 1 of 1

<b>Required Fields</b> Report To: Tidewater, Inc. Client: David Corner Attn: David Corner Street Address: 3761 Attucks Drive City: Powell State: OH Zip: 43065 Phone: (626) 298-5715 Fax: (614) 782-2897 Email Address: david.corner@tidco.net Submission #:		Project Description: JPL-GW Monitoring Project Code: 2022 Sampler(s): Blaine Tech		<b>Billing</b> Client: Tidewater Attn: David Corner Address: 3761 Attucks Drive City: Powell State: OH Zip: 43065 Are there any tests with holding times less than or equal to 48 hours? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No *Standard Turnaround = 30 Notes:	
Sample #	Sample Description	Date	Time	Matrix*	Analysis Requested
-1	TB-3-042722	04/27/22	0700	GW	<input checked="" type="checkbox"/> VOCs EPA 524.2 <input checked="" type="checkbox"/> TRM: Cr, Pb, As, Ca, Mg, K <input checked="" type="checkbox"/> Na, Fe <input checked="" type="checkbox"/> Hexavalent Cr6 - 218.6 (mg/L) <input checked="" type="checkbox"/> Cl, NO3, NO2, SO4, Perch. <input checked="" type="checkbox"/> CO3, HCO3, Alk, TDS, PH <input checked="" type="checkbox"/> Orthophosphate 365.1 <input checked="" type="checkbox"/> 1,4 Dioxane 8270SIM <input checked="" type="checkbox"/> NDMA 1625M <input checked="" type="checkbox"/> Low-level 1,2,3-TCP
-2	MW-19-S	0735	0735	GW	<input checked="" type="checkbox"/> VOCs EPA 524.2 <input checked="" type="checkbox"/> TRM: Cr, Pb, As, Ca, Mg, K <input checked="" type="checkbox"/> Na, Fe <input checked="" type="checkbox"/> Hexavalent Cr6 - 218.6 (mg/L) <input checked="" type="checkbox"/> Cl, NO3, NO2, SO4, Perch. <input checked="" type="checkbox"/> CO3, HCO3, Alk, TDS, PH <input checked="" type="checkbox"/> Orthophosphate 365.1 <input checked="" type="checkbox"/> 1,4 Dioxane 8270SIM <input checked="" type="checkbox"/> NDMA 1625M <input checked="" type="checkbox"/> Low-level 1,2,3-TCP
-3	MW-19-S	0810	0810	GW	<input checked="" type="checkbox"/> VOCs EPA 524.2 <input checked="" type="checkbox"/> TRM: Cr, Pb, As, Ca, Mg, K <input checked="" type="checkbox"/> Na, Fe <input checked="" type="checkbox"/> Hexavalent Cr6 - 218.6 (mg/L) <input checked="" type="checkbox"/> Cl, NO3, NO2, SO4, Perch. <input checked="" type="checkbox"/> CO3, HCO3, Alk, TDS, PH <input checked="" type="checkbox"/> Orthophosphate 365.1 <input checked="" type="checkbox"/> 1,4 Dioxane 8270SIM <input checked="" type="checkbox"/> NDMA 1625M <input checked="" type="checkbox"/> Low-level 1,2,3-TCP
-4	MW-19-S	0840	0840	GW	<input checked="" type="checkbox"/> VOCs EPA 524.2 <input checked="" type="checkbox"/> TRM: Cr, Pb, As, Ca, Mg, K <input checked="" type="checkbox"/> Na, Fe <input checked="" type="checkbox"/> Hexavalent Cr6 - 218.6 (mg/L) <input checked="" type="checkbox"/> Cl, NO3, NO2, SO4, Perch. <input checked="" type="checkbox"/> CO3, HCO3, Alk, TDS, PH <input checked="" type="checkbox"/> Orthophosphate 365.1 <input checked="" type="checkbox"/> 1,4 Dioxane 8270SIM <input checked="" type="checkbox"/> NDMA 1625M <input checked="" type="checkbox"/> Low-level 1,2,3-TCP
-5	MW-19-S	0935	0935	GW	<input checked="" type="checkbox"/> VOCs EPA 524.2 <input checked="" type="checkbox"/> TRM: Cr, Pb, As, Ca, Mg, K <input checked="" type="checkbox"/> Na, Fe <input checked="" type="checkbox"/> Hexavalent Cr6 - 218.6 (mg/L) <input checked="" type="checkbox"/> Cl, NO3, NO2, SO4, Perch. <input checked="" type="checkbox"/> CO3, HCO3, Alk, TDS, PH <input checked="" type="checkbox"/> Orthophosphate 365.1 <input checked="" type="checkbox"/> 1,4 Dioxane 8270SIM <input checked="" type="checkbox"/> NDMA 1625M <input checked="" type="checkbox"/> Low-level 1,2,3-TCP
-6	MW-19-S	1110	1110	GW	<input checked="" type="checkbox"/> VOCs EPA 524.2 <input checked="" type="checkbox"/> TRM: Cr, Pb, As, Ca, Mg, K <input checked="" type="checkbox"/> Na, Fe <input checked="" type="checkbox"/> Hexavalent Cr6 - 218.6 (mg/L) <input checked="" type="checkbox"/> Cl, NO3, NO2, SO4, Perch. <input checked="" type="checkbox"/> CO3, HCO3, Alk, TDS, PH <input checked="" type="checkbox"/> Orthophosphate 365.1 <input checked="" type="checkbox"/> 1,4 Dioxane 8270SIM <input checked="" type="checkbox"/> NDMA 1625M <input checked="" type="checkbox"/> Low-level 1,2,3-TCP
-7	MW-04-S	1320	1320	GW	<input checked="" type="checkbox"/> VOCs EPA 524.2 <input checked="" type="checkbox"/> TRM: Cr, Pb, As, Ca, Mg, K <input checked="" type="checkbox"/> Na, Fe <input checked="" type="checkbox"/> Hexavalent Cr6 - 218.6 (mg/L) <input checked="" type="checkbox"/> Cl, NO3, NO2, SO4, Perch. <input checked="" type="checkbox"/> CO3, HCO3, Alk, TDS, PH <input checked="" type="checkbox"/> Orthophosphate 365.1 <input checked="" type="checkbox"/> 1,4 Dioxane 8270SIM <input checked="" type="checkbox"/> NDMA 1625M <input checked="" type="checkbox"/> Low-level 1,2,3-TCP
-8	MW-4-S	1345	1345	GW	<input checked="" type="checkbox"/> VOCs EPA 524.2 <input checked="" type="checkbox"/> TRM: Cr, Pb, As, Ca, Mg, K <input checked="" type="checkbox"/> Na, Fe <input checked="" type="checkbox"/> Hexavalent Cr6 - 218.6 (mg/L) <input checked="" type="checkbox"/> Cl, NO3, NO2, SO4, Perch. <input checked="" type="checkbox"/> CO3, HCO3, Alk, TDS, PH <input checked="" type="checkbox"/> Orthophosphate 365.1 <input checked="" type="checkbox"/> 1,4 Dioxane 8270SIM <input checked="" type="checkbox"/> NDMA 1625M <input checked="" type="checkbox"/> Low-level 1,2,3-TCP
-9	DRP-3-2022	1400	1400	GW	<input checked="" type="checkbox"/> VOCs EPA 524.2 <input checked="" type="checkbox"/> TRM: Cr, Pb, As, Ca, Mg, K <input checked="" type="checkbox"/> Na, Fe <input checked="" type="checkbox"/> Hexavalent Cr6 - 218.6 (mg/L) <input checked="" type="checkbox"/> Cl, NO3, NO2, SO4, Perch. <input checked="" type="checkbox"/> CO3, HCO3, Alk, TDS, PH <input checked="" type="checkbox"/> Orthophosphate 365.1 <input checked="" type="checkbox"/> 1,4 Dioxane 8270SIM <input checked="" type="checkbox"/> NDMA 1625M <input checked="" type="checkbox"/> Low-level 1,2,3-TCP
-10	MW-4-S	1435	1435	GW	<input checked="" type="checkbox"/> VOCs EPA 524.2 <input checked="" type="checkbox"/> TRM: Cr, Pb, As, Ca, Mg, K <input checked="" type="checkbox"/> Na, Fe <input checked="" type="checkbox"/> Hexavalent Cr6 - 218.6 (mg/L) <input checked="" type="checkbox"/> Cl, NO3, NO2, SO4, Perch. <input checked="" type="checkbox"/> CO3, HCO3, Alk, TDS, PH <input checked="" type="checkbox"/> Orthophosphate 365.1 <input checked="" type="checkbox"/> 1,4 Dioxane 8270SIM <input checked="" type="checkbox"/> NDMA 1625M <input checked="" type="checkbox"/> Low-level 1,2,3-TCP
-11	EB-3-042722	1450	1450	GW	<input checked="" type="checkbox"/> VOCs EPA 524.2 <input checked="" type="checkbox"/> TRM: Cr, Pb, As, Ca, Mg, K <input checked="" type="checkbox"/> Na, Fe <input checked="" type="checkbox"/> Hexavalent Cr6 - 218.6 (mg/L) <input checked="" type="checkbox"/> Cl, NO3, NO2, SO4, Perch. <input checked="" type="checkbox"/> CO3, HCO3, Alk, TDS, PH <input checked="" type="checkbox"/> Orthophosphate 365.1 <input checked="" type="checkbox"/> 1,4 Dioxane 8270SIM <input checked="" type="checkbox"/> NDMA 1625M <input checked="" type="checkbox"/> Low-level 1,2,3-TCP

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. Relinquished By: \_\_\_\_\_ Date: 4/27/22 Time: 4:13

2. Received By: \_\_\_\_\_ Date: 4/27/22 Time: 2:00

3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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

1. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

2. Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

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 SIRE

CVA 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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BC LABORATORIES INC.		COOLER RECEIPT FORM		Page 1 of 2	
Submission #: <u>22-09865</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> (W) S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____ Intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>274</u> Temperature: (A) <u>1.6</u> °C / (C) <u>1.4</u> °C		Date/Time <u>4/27/22 2000</u> Analyst Init <u>PBC</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		G	G	M,N	G	G				
4oz / 8oz / 16oz PE UNPRES										
3oz Cr <sup>6</sup>		I	I	O,R	I	I				
QT INORGANIC CHEMICAL METALS		H	H	D,P	H	H				
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
3oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTa PHENOLICS										
40ml VOA VIAL TRAVEL BLANK <u>Vap.</u>	A									
40ml VOA VIAL		A-C	A-C	A-E	A-C	A-C				
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL <u>Amber Vap.</u>		D-F	D-F	G-L	D-F	D-F				
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: PBC Date/Time: 4/28/22 0615 Rev 22 04/13/21

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>2</u> Of <u>2</u>	
Submission #: <u>22-048605</u>					
SHIPPING INFORMATION			SHIPPING CONTAINER		FREE LIQUID
Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <input type="checkbox"/> Hand Delivery <input type="checkbox"/>			Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/>		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			Other <input type="checkbox"/> (Specify) _____		(W) / S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____					
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>274</u>		Date/Time <u>4/27/22</u> <u>2000</u>	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Temperature: (A) <u>1.2</u> °C / (C) <u>1.0</u> °C		Analyst Init <u>PRE</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	7	8	9	10	11	6	7	8	9	10
QT PE UNPRES	G	G	G	G	G					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>	I	I	I	I	I					
QT INORGANIC CHEMICAL METALS	H	H	H	H	H					
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A-C	A-C	A-C	A-C	A-C					
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - <del>40T</del> Amber Vial	D-F	D-F	D-F	D-F	D-F					
QT EPA 501/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 551.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: PRE Date/Time: 4/28/22 0825  
 A = Actual / C = Corrected



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
2209865-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/27/2022 20:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/27/2022 07:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	TB-3-042722	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Trip Blank
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): TB-3-042722
			Matrix: W
			Sample QC Type (SACode): CS
		Cooler ID:	
2209865-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/27/2022 20:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/27/2022 07:35
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-19-5	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-19-5
			Matrix: W
			Sample QC Type (SACode): CS
		Cooler ID:	
2209865-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/27/2022 20:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/27/2022 08:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-19-4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			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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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information					
2209865-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/27/2022 20:00		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	04/27/2022 08:40		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-19-3	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): MW-19-3					
	Matrix: W					
	Sample QC Type (SACode): CS					
Cooler ID:						
2209865-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/27/2022 20:00		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	04/27/2022 09:35		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-19-2	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): MW-19-2					
	Matrix: W					
	Sample QC Type (SACode): CS					
Cooler ID:						
2209865-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/27/2022 20:00		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	04/27/2022 11:10		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-19-1	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): MW-19-1					
	Matrix: W					
	Sample QC Type (SACode): CS					
Cooler ID:						

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
2209865-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/27/2022 20:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/27/2022 13:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-04-5	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-04-5
			Matrix: W
			Sample QC Type (SACode): CS
		Cooler ID:	
2209865-08	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/27/2022 20:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/27/2022 13:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-4-4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-04-4
			Matrix: W
			Sample QC Type (SACode): CS
		Cooler ID:	
2209865-09	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/27/2022 20:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/27/2022 14:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	DUP-3-2Q22	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): DUP-3-2Q22
			Matrix: W
			Sample QC Type (SACode): CS
		Cooler ID:	

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**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
<b>2209865-10</b>	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/27/2022 20:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/27/2022 14:35
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-4-3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-4-3
			Matrix: W
			Sample QC Type (SACode): CS
		Cooler ID:	
<b>2209865-11</b>	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/27/2022 20:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/27/2022 14:50
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	EB-3-042722	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Blank Water
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): EB-3-042722
			Matrix: W
			Sample QC Type (SACode): CS
		Cooler ID:	

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209865-01      **Client Sample Name:** NASA/JPL, TB-3-042722, 4/27/2022 7:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209865-01      **Client Sample Name:** NASA/JPL, TB-3-042722, 4/27/2022 7:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209865-01      **Client Sample Name:** NASA/JPL, TB-3-042722, 4/27/2022 7:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 10:31	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209865-01	Client Sample Name: NASA/JPL, TB-3-042722, 4/27/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	10:31	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209865-02      **Client Sample Name:** NASA/JPL, MW-19-5, 4/27/2022 7:35:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>2.2</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-02	Client Sample Name:	NASA/JPL, MW-19-5, 4/27/2022 7:35:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.23</b>	<b>EPA-524.2</b>	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
<b>Trichloroethene</b>	<b>0.27</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209865-02	Client Sample Name: NASA/JPL, MW-19-5, 4/27/2022 7:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 10:55	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209865-02	Client Sample Name: NASA/JPL, MW-19-5, 4/27/2022 7:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	10:55	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209865-02	<b>Client Sample Name:</b> NASA/JPL, MW-19-5, 4/27/2022 7:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 08:03	ADC	MS-V16	1	B138643	EPA 524.2

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209865-02	Client Sample Name:	NASA/JPL, MW-19-5, 4/27/2022 7:35:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	83	mg/L	0.10	0.014	EPA-200.7	0.048		1
Total Recoverable Magnesium	27	mg/L	0.050	0.019	EPA-200.7	0.027		1
Total Recoverable Sodium	31	mg/L	0.50	0.051	EPA-200.7	0.069		1
Total Recoverable Potassium	2.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	240	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	200	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	83	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	9.6	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	110	mg/L	1.0	0.14	EPA-300.0	0.31		3
pH	7.88	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	540	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	2.8	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/29/22 17:50	05/05/22 14:58		AK1	PE-OP4	1	B138500	EPA 200.2
2	SM-2320B	05/02/22 07:00	05/02/22 11:01		RML	MET-1	1	B138171	No Prep
3	EPA-300.0	04/28/22 17:00	04/28/22 17:20		JAT	IC7	1	B138376	No Prep
4	EPA-150.1	05/02/22 07:00	05/02/22 11:01		RML	MET-1	1	B138171	No Prep
5	EPA-160.1	05/02/22 16:00	05/02/22 16:00		CAD	MANUAL	3.333	B138619	No Prep
6	EPA-353.2	04/28/22 08:58	04/28/22 09:49		MC1	KONE-1	1	B138949	No Prep
7	EPA-314.0	05/09/22 13:00	05/09/22 16:28		MKB	IC6	1	B139228	No Prep

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209865-02	Client Sample Name: NASA/JPL, MW-19-5, 4/27/2022 7:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0024	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	0.94	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	1.8	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	34	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22	13:38	MKB	IC-4	1	B138683	No Prep
2	EPA-200.8	05/02/22 10:00	05/03/22	14:16	KHS	PE-EL4	1	B138586	EPA 200.2
3	EPA-200.7	04/29/22 17:50	05/05/22	14:58	AK1	PE-OP4	1	B138500	EPA 200.2

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-03	Client Sample Name:	NASA/JPL, MW-19-4, 4/27/2022 8:10:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>2.4</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-03	Client Sample Name:	NASA/JPL, MW-19-4, 4/27/2022 8:10:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.88</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.36</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209865-03	Client Sample Name: NASA/JPL, MW-19-4, 4/27/2022 8:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 11:20	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209865-03	Client Sample Name: NASA/JPL, MW-19-4, 4/27/2022 8:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	11:20	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209865-03	<b>Client Sample Name:</b> NASA/JPL, MW-19-4, 4/27/2022 8:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22	08:29	ADC	MS-V16	1	B138643	EPA 524.2

DCN = Data Continuation Number

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209865-03	Client Sample Name:	NASA/JPL, MW-19-4, 4/27/2022 8:10:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	98	mg/L	0.10	0.014	EPA-200.7	0.048		1
Total Recoverable Magnesium	32	mg/L	0.050	0.019	EPA-200.7	0.027		1
Total Recoverable Sodium	33	mg/L	0.50	0.051	EPA-200.7	0.069		1
Total Recoverable Potassium	2.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	240	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	200	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	88	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	10	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	110	mg/L	1.0	0.14	EPA-300.0	0.31		3
pH	7.74	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	560	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	2.9	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/29/22 17:50	05/05/22 15:06		AK1	PE-OP4	1	B138500	EPA 200.2
2	SM-2320B	05/02/22 07:00	05/02/22 11:09		RML	MET-1	1	B138171	No Prep
3	EPA-300.0	04/28/22 17:00	04/28/22 17:38		JAT	IC7	1	B138376	No Prep
4	EPA-150.1	05/02/22 07:00	05/02/22 11:09		RML	MET-1	1	B138171	No Prep
5	EPA-160.1	05/02/22 16:00	05/02/22 16:00		CAD	MANUAL	3.333	B138619	No Prep
6	EPA-353.2	04/28/22 08:58	04/28/22 09:49		MC1	KONE-1	1	B138949	No Prep
7	EPA-314.0	05/09/22 13:00	05/09/22 17:30		KB1	IC6	1	B139228	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209865-03	Client Sample Name: NASA/JPL, MW-19-4, 4/27/2022 8:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0026	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	0.93	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	2.0	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22	13:48	MKB	IC-4	1	B138683	No Prep
2	EPA-200.8	05/02/22 10:00	05/03/22	14:18	KHS	PE-EL4	1	B138586	EPA 200.2
3	EPA-200.7	04/29/22 17:50	05/05/22	15:06	AK1	PE-OP4	1	B138500	EPA 200.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209865-04		Client Sample Name: NASA/JPL, MW-19-3, 4/27/2022 8:40:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>3.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
<b>1,1-Dichloroethane</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-Dichloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
<b>cis-1,2-Dichloroethene</b>	<b>0.43</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.27</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-04	Client Sample Name:	NASA/JPL, MW-19-3, 4/27/2022 8:40:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>2.2</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		<b>1</b>	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
<b>Trichloroethene</b>	<b>0.84</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209865-04	<b>Client Sample Name:</b> NASA/JPL, MW-19-3, 4/27/2022 8:40:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 10:06	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209865-04	Client Sample Name: NASA/JPL, MW-19-3, 4/27/2022 8:40:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	10:06	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209865-04	<b>Client Sample Name:</b> NASA/JPL, MW-19-3, 4/27/2022 8:40:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 15:28	ADC	MS-V16	1	B138643	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209865-04	Client Sample Name:	NASA/JPL, MW-19-3, 4/27/2022 8:40:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	99	mg/L	0.10	0.014	EPA-200.7	0.048		1
Total Recoverable Magnesium	33	mg/L	0.050	0.019	EPA-200.7	0.027		1
Total Recoverable Sodium	32	mg/L	0.50	0.051	EPA-200.7	0.069		1
Total Recoverable Potassium	2.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	240	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	96	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	11	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	120	mg/L	1.0	0.14	EPA-300.0	0.31		3
pH	7.60	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	590	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	3.4	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/29/22 17:50	05/05/22 14:45		AK1	PE-OP4	1	B138500	EPA 200.2
2	SM-2320B	05/02/22 07:00	05/02/22 10:34		RML	MET-1	1	B138171	No Prep
3	EPA-300.0	04/28/22 17:00	04/28/22 17:56		JAT	IC7	1	B138376	No Prep
4	EPA-150.1	05/02/22 07:00	05/02/22 10:34		RML	MET-1	1	B138171	No Prep
5	EPA-160.1	05/02/22 16:00	05/02/22 16:00		CAD	MANUAL	3.333	B138619	No Prep
6	EPA-353.2	04/28/22 08:58	04/28/22 09:49		MC1	KONE-1	1	B138949	No Prep
7	EPA-314.0	05/09/22 13:00	05/09/22 15:27		MKB	IC6	1	B139228	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209865-04	Client Sample Name: NASA/JPL, MW-19-3, 4/27/2022 8:40:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0018	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	1.8	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	89	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 13:58		MKB	IC-4	1	B138683	No Prep
2	EPA-200.8	05/02/22 10:00	05/03/22 13:49		KHS	PE-EL4	1	B138586	EPA 200.2
3	EPA-200.7	04/29/22 17:50	05/05/22 14:45		AK1	PE-OP4	1	B138500	EPA 200.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-05	Client Sample Name:	NASA/JPL, MW-19-2, 4/27/2022 9:35:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>1.7</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-05	Client Sample Name:	NASA/JPL, MW-19-2, 4/27/2022 9:35:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>1.4</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.87</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209865-05	Client Sample Name: NASA/JPL, MW-19-2, 4/27/2022 9:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 11:44	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209865-05	Client Sample Name: NASA/JPL, MW-19-2, 4/27/2022 9:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	11:44	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209865-05	<b>Client Sample Name:</b> NASA/JPL, MW-19-2, 4/27/2022 9:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 09:21	ADC	MS-V16	1	B138643	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209865-05	Client Sample Name:	NASA/JPL, MW-19-2, 4/27/2022 9:35:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	130	mg/L	0.10	0.014	EPA-200.7	0.048		1
Total Recoverable Magnesium	43	mg/L	0.050	0.019	EPA-200.7	0.027		1
Total Recoverable Sodium	38	mg/L	0.50	0.051	EPA-200.7	0.069		1
Total Recoverable Potassium	3.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	330	mg/L	10	10	SM-2320B	ND	A10	2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B	ND	A10	2
Total Alkalinity as CaCO3	270	mg/L	8.2	8.2	SM-2320B	ND	A10	2
Chloride	110	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	10	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	140	mg/L	1.0	0.14	EPA-300.0	0.31		3
pH	7.48	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	740	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	1.6	ug/L	2.0	0.81	EPA-314.0	ND	J	7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/29/22 17:50	05/05/22 15:09		AK1	PE-OP4	1	B138500	EPA 200.2
2	SM-2320B	05/02/22 07:00	05/02/22 11:17		RML	MET-1	2	B138171	No Prep
3	EPA-300.0	04/28/22 17:00	04/28/22 18:14		JAT	IC7	1	B138376	No Prep
4	EPA-150.1	05/02/22 07:00	05/02/22 11:17		RML	MET-1	1	B138171	No Prep
5	EPA-160.1	05/02/22 16:00	05/02/22 16:00		CAD	MANUAL	3.333	B138619	No Prep
6	EPA-353.2	04/28/22 08:58	04/28/22 09:49		MC1	KONE-1	1	B138949	No Prep
7	EPA-314.0	05/09/22 13:00	05/10/22 10:25		MKB	IC6	1	B139228	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209865-05	Client Sample Name: NASA/JPL, MW-19-2, 4/27/2022 9:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00080	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	1.9	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	800	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 14:36		MKB	IC-4	1	B138683	No Prep
2	EPA-200.8	05/02/22 10:00	05/03/22 14:20		KHS	PE-EL4	1	B138586	EPA 200.2
3	EPA-200.7	04/29/22 17:50	05/05/22 15:09		AK1	PE-OP4	1	B138500	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-06	Client Sample Name:	NASA/JPL, MW-19-1, 4/27/2022 11:10:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>1.6</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 Powell, OH 43065

Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-06	Client Sample Name:	NASA/JPL, MW-19-1, 4/27/2022 11:10:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209865-06	<b>Client Sample Name:</b> NASA/JPL, MW-19-1, 4/27/2022 11:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 12:09	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209865-06	Client Sample Name: NASA/JPL, MW-19-1, 4/27/2022 11:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	12:09	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209865-06	<b>Client Sample Name:</b> NASA/JPL, MW-19-1, 4/27/2022 11:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 09:48	ADC	MS-V16	1	B138643	EPA 524.2

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209865-06	Client Sample Name:	NASA/JPL, MW-19-1, 4/27/2022 11:10:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	68	mg/L	0.10	0.014	EPA-200.7	0.048		1
Total Recoverable Magnesium	19	mg/L	0.050	0.019	EPA-200.7	0.027		1
Total Recoverable Sodium	24	mg/L	0.50	0.051	EPA-200.7	0.069		1
Total Recoverable Potassium	3.3	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	210	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	180	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	51	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	4.1	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	82	mg/L	1.0	0.14	EPA-300.0	0.31		3
pH	7.86	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	410	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/29/22 17:50	05/05/22 15:11		AK1	PE-OP4	1	B138500	EPA 200.2
2	SM-2320B	05/02/22 07:00	05/02/22 11:25		RML	MET-1	1	B138171	No Prep
3	EPA-300.0	04/28/22 17:00	04/28/22 19:08		JAT	IC7	1	B138376	No Prep
4	EPA-150.1	05/02/22 07:00	05/02/22 11:25		RML	MET-1	1	B138171	No Prep
5	EPA-160.1	05/02/22 16:00	05/02/22 16:00		CAD	MANUAL	2	B138619	No Prep
6	EPA-353.2	04/28/22 08:58	04/28/22 09:49		MC1	KONE-1	1	B138949	No Prep
7	EPA-314.0	05/09/22 13:00	05/09/22 18:00		KB1	IC6	1	B139228	No Prep

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209865-06	Client Sample Name: NASA/JPL, MW-19-1, 4/27/2022 11:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00038	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	600	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 14:45		MKB	IC-4	1	B138683	No Prep
2	EPA-200.8	05/02/22 10:00	05/03/22 14:22		KHS	PE-EL4	1	B138586	EPA 200.2
3	EPA-200.7	04/29/22 17:50	05/05/22 15:11		AK1	PE-OP4	1	B138500	EPA 200.2

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-07	Client Sample Name:	NASA/JPL, MW-04-5, 4/27/2022 1:20:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209865-07      **Client Sample Name:** NASA/JPL, MW-04-5, 4/27/2022 1:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209865-07      **Client Sample Name:** NASA/JPL, MW-04-5, 4/27/2022 1:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 12:33	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209865-07	Client Sample Name: NASA/JPL, MW-04-5, 4/27/2022 1:20:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	12:33	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209865-07	<b>Client Sample Name:</b> NASA/JPL, MW-04-5, 4/27/2022 1:20:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 10:14		ADC	MS-V16	1	B138643	EPA 524.2

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209865-07	Client Sample Name:	NASA/JPL, MW-04-5, 4/27/2022 1:20:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	43	mg/L	0.10	0.014	EPA-200.7	0.043		1
Total Recoverable Magnesium	18	mg/L	0.050	0.019	EPA-200.7	0.027		1
Total Recoverable Sodium	32	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	190	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	150	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	52	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	0.62	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	47	mg/L	1.0	0.14	EPA-300.0	0.31		3
pH	8.13	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	320	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	0.052	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	1.0	ug/L	2.0	0.81	EPA-314.0	ND	J	7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/29/22 17:50	05/05/22 15:35		AK1	PE-OP4	1	B138501	EPA 200.2
2	SM-2320B	05/02/22 07:00	05/02/22 11:33		RML	MET-1	1	B138171	No Prep
3	EPA-300.0	04/28/22 17:00	04/28/22 19:43		JAT	IC7	1	B138376	No Prep
4	EPA-150.1	05/02/22 07:00	05/02/22 11:33		RML	MET-1	1	B138171	No Prep
5	EPA-160.1	05/02/22 16:00	05/02/22 16:00		CAD	MANUAL	2	B138619	No Prep
6	EPA-353.2	04/28/22 08:58	04/28/22 09:53		MC1	KONE-1	1	B138949	No Prep
7	EPA-314.0	05/09/22 13:00	05/10/22 00:55		MKB	IC6	1	B139228	No Prep

DCN = Data Continuation Number

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209865-07	Client Sample Name: NASA/JPL, MW-04-5, 4/27/2022 1:20:00PM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000045	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	240	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22	15:14	MKB	IC-4	1	B138683	No Prep
2	EPA-200.8	05/02/22 10:00	05/03/22	14:24	KHS	PE-EL4	1	B138586	EPA 200.2
3	EPA-200.7	04/29/22 17:50	05/05/22	15:35	AK1	PE-OP4	1	B138501	EPA 200.2

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209865-08		Client Sample Name: NASA/JPL, MW-4-4, 4/27/2022 1:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209865-08		Client Sample Name: NASA/JPL, MW-4-4, 4/27/2022 1:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209865-08	<b>Client Sample Name:</b> NASA/JPL, MW-4-4, 4/27/2022 1:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 12:58	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number





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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209865-08	Client Sample Name: NASA/JPL, MW-4-4, 4/27/2022 1:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	12:58	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209865-08	Client Sample Name: NASA/JPL, MW-4-4, 4/27/2022 1:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 10:40	ADC	MS-V16	1	B138643	EPA 524.2

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209865-08	Client Sample Name:	NASA/JPL, MW-4-4, 4/27/2022 1:45:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	56	mg/L	0.10	0.014	EPA-200.7	0.015		1
Total Recoverable Magnesium	20	mg/L	0.050	0.019	EPA-200.7	0.032		1
Total Recoverable Sodium	34	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	200	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	170	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	51	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	5.8	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	46	mg/L	1.0	0.14	EPA-300.0	0.31		3
pH	8.02	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	360	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	2.1	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/29/22 17:55	05/04/22 15:48		AK1	PE-OP4	1	B138502	EPA 200.2
2	SM-2320B	05/02/22 07:00	05/02/22 11:41		RML	MET-1	1	B138171	No Prep
3	EPA-300.0	04/28/22 17:00	04/28/22 20:01		JAT	IC7	1	B138376	No Prep
4	EPA-150.1	05/02/22 07:00	05/02/22 11:41		RML	MET-1	1	B138171	No Prep
5	EPA-160.1	05/02/22 16:00	05/02/22 16:00		CAD	MANUAL	2	B138619	No Prep
6	EPA-353.2	04/28/22 08:58	04/28/22 09:53		MC1	KONE-1	1	B138949	No Prep
7	EPA-314.0	05/09/22 13:00	05/09/22 18:31		KB1	IC6	1	B139228	No Prep

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209865-08	Client Sample Name: NASA/JPL, MW-4-4, 4/27/2022 1:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00013	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	3.8	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	13	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	9200	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date		Run		Analyst	Instrument	Dilution	QC	
				Date/Time	Date/Time				Batch ID	Prep Method
1	EPA-218.6	05/02/22	15:10	05/03/22	15:24	MKB	IC-4	1	B138683	No Prep
2	EPA-200.8	05/02/22	10:00	05/03/22	14:26	KHS	PE-EL4	1	B138586	EPA 200.2
3	EPA-200.7	04/29/22	17:55	05/04/22	15:48	AK1	PE-OP4	1	B138502	EPA 200.2

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209865-09	<b>Client Sample Name:</b> NASA/JPL, DUP-3-2Q22, 4/27/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209865-09      **Client Sample Name:** NASA/JPL, DUP-3-2Q22, 4/27/2022 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209865-09      **Client Sample Name:** NASA/JPL, DUP-3-2Q22, 4/27/2022 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	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)	94.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 13:22	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209865-09	Client Sample Name: NASA/JPL, DUP-3-2Q22, 4/27/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	13:22	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number





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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209865-09	Client Sample Name: NASA/JPL, DUP-3-2Q22, 4/27/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	0.0046	ug/L	0.0050	0.0010	SRL 524M	ND	J	1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 11:06	ADC	MS-V16	1	B138643	EPA 524.2

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209865-09							
Client Sample Name:	NASA/JPL, DUP-3-2Q22, 4/27/2022 2:00:00PM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	53	mg/L	0.10	0.014	EPA-200.7	0.015		1
Total Recoverable Magnesium	20	mg/L	0.050	0.019	EPA-200.7	0.032		1
Total Recoverable Sodium	33	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	1.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	200	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	170	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	54	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	5.8	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	49	mg/L	1.0	0.14	EPA-300.0	0.31		3
pH	8.02	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	370	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	1.9	ug/L	2.0	0.81	EPA-314.0	ND	J	7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/29/22 17:55	05/04/22 16:09		AK1	PE-OP4	1	B138502	EPA 200.2
2	SM-2320B	05/02/22 07:00	05/02/22 11:51		RML	MET-1	1	B138171	No Prep
3	EPA-300.0	04/28/22 17:00	04/28/22 20:19		JAT	IC7	1	B138376	No Prep
4	EPA-150.1	05/02/22 07:00	05/02/22 11:51		RML	MET-1	1	B138171	No Prep
5	EPA-160.1	05/02/22 16:00	05/02/22 16:00		CAD	MANUAL	2	B138619	No Prep
6	EPA-353.2	04/28/22 08:58	04/28/22 09:53		MC1	KONE-1	1	B138949	No Prep
7	EPA-314.0	05/09/22 13:00	05/10/22 01:25		MKB	IC6	1	B139228	No Prep

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209865-09	Client Sample Name: NASA/JPL, DUP-3-2Q22, 4/27/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000054	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	3.3	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	10	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	6100	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22 15:33		MKB	IC-4	1	B138683	No Prep
2	EPA-200.8	05/02/22 10:00	05/03/22 14:49		KHS	PE-EL2	1	B138587	EPA 200.2
3	EPA-200.7	04/29/22 17:55	05/04/22 16:09		AK1	PE-OP4	1	B138502	EPA 200.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-10	Client Sample Name:	NASA/JPL, MW-4-3, 4/27/2022 2:35:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 Powell, OH 43065

Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-10	Client Sample Name:	NASA/JPL, MW-4-3, 4/27/2022 2:35:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
<b>Trichloroethene</b>	<b>0.20</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209865-10      **Client Sample Name:** NASA/JPL, MW-4-3, 4/27/2022 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 13:47	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209865-10	Client Sample Name: NASA/JPL, MW-4-3, 4/27/2022 2:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	13:47	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:23  
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 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209865-10	Client Sample Name: NASA/JPL, MW-4-3, 4/27/2022 2:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 11:32	ADC	MS-V16	1	B138643	EPA 524.2

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209865-10	Client Sample Name:	NASA/JPL, MW-4-3, 4/27/2022 2:35:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	55	mg/L	0.10	0.014	EPA-200.7	0.015		1
Total Recoverable Magnesium	19	mg/L	0.050	0.019	EPA-200.7	0.032		1
Total Recoverable Sodium	32	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	1.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	200	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	170	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	52	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	7.7	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	46	mg/L	1.0	0.14	EPA-300.0	0.31		3
pH	8.03	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	370	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	2.3	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/29/22 17:55	05/04/22 16:11		AK1	PE-OP4	1	B138502	EPA 200.2
2	SM-2320B	05/02/22 07:00	05/02/22 12:00		RML	MET-1	1	B138171	No Prep
3	EPA-300.0	04/28/22 17:00	04/28/22 20:37		JAT	IC7	1	B138376	No Prep
4	EPA-150.1	05/02/22 07:00	05/02/22 12:00		RML	MET-1	1	B138171	No Prep
5	EPA-160.1	05/02/22 16:00	05/02/22 16:00		CAD	MANUAL	2	B138619	No Prep
6	EPA-353.2	04/28/22 08:58	04/28/22 09:53		MC1	KONE-1	1	B138949	No Prep
7	EPA-314.0	05/09/22 13:00	05/09/22 19:02		KB1	IC6	1	B139228	No Prep

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209865-10	Client Sample Name: NASA/JPL, MW-4-3, 4/27/2022 2:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00024	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.9	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	1.8	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	600	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22	15:43	MKB	IC-4	1	B138683	No Prep
2	EPA-200.8	05/02/22 10:00	05/03/22	14:09	KHS	PE-EL2	1	B138587	EPA 200.2
3	EPA-200.7	04/29/22 17:55	05/04/22	16:11	AK1	PE-OP4	1	B138502	EPA 200.2

DCN = Data Continuation Number



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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-11	Client Sample Name:	NASA/JPL, EB-3-042722, 4/27/2022 2:50:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209865-11	Client Sample Name:	NASA/JPL, EB-3-042722, 4/27/2022 2:50:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209865-11      **Client Sample Name:** NASA/JPL, EB-3-042722, 4/27/2022 2:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 14:11	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209865-11	Client Sample Name: NASA/JPL, EB-3-042722, 4/27/2022 2:50:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	14:11	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209865-11	<b>Client Sample Name:</b> NASA/JPL, EB-3-042722, 4/27/2022 2:50:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 11:59	ADC	MS-V16	1	B138643	EPA 524.2

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Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209865-11	Client Sample Name:	NASA/JPL, EB-3-042722, 4/27/2022 2:50:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	0.051	mg/L	0.10	0.014	EPA-200.7	0.015	J	1
Total Recoverable Magnesium	ND	mg/L	0.050	0.019	EPA-200.7	0.032		2
Total Recoverable Sodium	0.21	mg/L	0.50	0.051	EPA-200.7	ND	J	1
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	ND	mg/L	5.0	5.0	SM-2320B	ND		3
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		3
Total Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		3
Chloride	ND	mg/L	0.50	0.13	EPA-300.0	ND		4
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		4
Sulfate	0.31	mg/L	1.0	0.14	EPA-300.0	0.31	J	4
pH	6.10	pH Units	0.05	0.05	EPA-150.1		S05	5
Total Dissolved Solids @ 180 C	4.0	mg/L	6.7	3.3	EPA-160.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		8

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	04/29/22 17:55	05/04/22 16:13		AK1	PE-OP4	1	B138502	EPA 200.2
2	EPA-200.7	04/29/22 17:55	05/06/22 19:45		AK1	PE-OP4	1	B138502	EPA 200.2
3	SM-2320B	05/02/22 07:00	05/02/22 12:45		RML	MET-1	1	B138172	No Prep
4	EPA-300.0	04/28/22 17:00	04/28/22 19:26		JAT	IC7	1	B138376	No Prep
5	EPA-150.1	05/02/22 07:00	05/02/22 12:45		RML	MET-1	1	B138172	No Prep
6	EPA-160.1	05/02/22 16:00	05/02/22 16:00		CAD	MANUAL	0.667	B138619	No Prep
7	EPA-353.2	04/28/22 08:58	04/28/22 09:53		MC1	KONE-1	1	B138949	No Prep
8	EPA-314.0	05/09/22 13:00	05/09/22 19:17		KB1	IC6	1	B139228	No Prep

DCN = Data Continuation Number





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 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2209865-11	<b>Client Sample Name:</b> NASA/JPL, EB-3-042722, 4/27/2022 2:50:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000055	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/02/22 15:10	05/03/22	15:53	MKB	IC-4	1	B138683	No Prep
2	EPA-200.8	05/02/22 10:00	05/03/22	14:51	KHS	PE-EL2	1	B138587	EPA 200.2
3	EPA-200.7	04/29/22 17:55	05/04/22	16:13	AK1	PE-OP4	1	B138502	EPA 200.2

DCN = Data Continuation Number



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 Project Number: 2Q22  
 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: B138523</b>						
Benzene	B138523-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B138523-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B138523-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B138523-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B138523-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B138523-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B138523-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B138523-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B138523-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B138523-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B138523-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B138523-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B138523-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B138523-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B138523-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B138523-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B138523-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B138523-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B138523-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B138523-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B138523-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B138523-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B138523-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B138523-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B138523-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B138523-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B138523-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B138523-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B138523-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B138523-BLK1	ND	ug/L	0.50	0.14	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138523</b>						
trans-1,3-Dichloropropene	B138523-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B138523-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B138523-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B138523-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B138523-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B138523-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B138523-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B138523-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B138523-BLK1	ND	ug/L	0.50	0.12	
Styrene	B138523-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B138523-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B138523-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B138523-BLK1	ND	ug/L	0.50	0.23	
Toluene	B138523-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B138523-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B138523-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B138523-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B138523-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B138523-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B138523-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B138523-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B138523-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B138523-BLK1	ND	ug/L	0.50	0.18	
Acetone	B138523-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B138523-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B138523-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B138523-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B138523-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B138523-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B138523-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B138523-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B138523-BLK1	ND	ug/L	4.0	1.3	

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 Project Number: 2Q22  
 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: B138523</b>						
Ethyl t-butyl ether	B138523-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B138523-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B138523-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B138523-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B138523-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B138523-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B138523-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B138523-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B138523-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B138523-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B138523-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B138523-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B138523-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B138523-BLK1</b>	<b>97.2</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B138523-BLK1</b>	<b>99.6</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B138523-BLK1</b>	<b>93.5</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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 Project Number: 2Q22  
 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: B138523</b>										
Benzene	B138523-BS1	LCS	24.250	25.000	ug/L	97.0		70 - 130		
Bromodichloromethane	B138523-BS1	LCS	24.720	25.000	ug/L	98.9		70 - 130		
Chlorobenzene	B138523-BS1	LCS	24.200	25.000	ug/L	96.8		70 - 130		
Chloroethane	B138523-BS1	LCS	26.630	25.000	ug/L	107		70 - 130		
1,4-Dichlorobenzene	B138523-BS1	LCS	24.640	25.000	ug/L	98.6		70 - 130		
1,1-Dichloroethane	B138523-BS1	LCS	25.870	25.000	ug/L	103		70 - 130		
1,1-Dichloroethene	B138523-BS1	LCS	26.030	25.000	ug/L	104		70 - 130		
Toluene	B138523-BS1	LCS	23.580	25.000	ug/L	94.3		70 - 130		
Trichloroethene	B138523-BS1	LCS	25.140	25.000	ug/L	101		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B138523-BS1	LCS	10.250	10.000	ug/L	102		75 - 125		
Toluene-d8 (Surrogate)	B138523-BS1	LCS	9.9600	10.000	ug/L	99.6		80 - 120		
4-Bromofluorobenzene (Surrogate)	B138523-BS1	LCS	10.050	10.000	ug/L	100		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	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138523</b>		Used client sample: Y - Description: MW-19-3, 04/27/2022 08:40									
Benzene	MS	2209865-04	ND	24.870	25.000	ug/L		99.5		70 - 130	
	MSD	2209865-04	ND	24.440	25.000	ug/L	1.7	97.8	20	70 - 130	
Bromodichloromethane	MS	2209865-04	ND	25.180	25.000	ug/L		101		70 - 130	
	MSD	2209865-04	ND	25.410	25.000	ug/L	0.9	102	20	70 - 130	
Chlorobenzene	MS	2209865-04	ND	23.940	25.000	ug/L		95.8		70 - 130	
	MSD	2209865-04	ND	24.230	25.000	ug/L	1.2	96.9	20	70 - 130	
Chloroethane	MS	2209865-04	ND	26.950	25.000	ug/L		108		70 - 130	
	MSD	2209865-04	ND	26.530	25.000	ug/L	1.6	106	20	70 - 130	
1,4-Dichlorobenzene	MS	2209865-04	ND	24.180	25.000	ug/L		96.7		70 - 130	
	MSD	2209865-04	ND	24.530	25.000	ug/L	1.4	98.1	20	70 - 130	
1,1-Dichloroethane	MS	2209865-04	0.24000	26.920	25.000	ug/L		107		70 - 130	
	MSD	2209865-04	0.24000	26.460	25.000	ug/L	1.7	105	20	70 - 130	
1,1-Dichloroethene	MS	2209865-04	ND	26.550	25.000	ug/L		106		70 - 130	
	MSD	2209865-04	ND	26.300	25.000	ug/L	0.9	105	20	70 - 130	
Toluene	MS	2209865-04	ND	24.030	25.000	ug/L		96.1		70 - 130	
	MSD	2209865-04	ND	23.760	25.000	ug/L	1.1	95.0	20	70 - 130	
Trichloroethene	MS	2209865-04	0.84000	24.920	25.000	ug/L		96.3		70 - 130	
	MSD	2209865-04	0.84000	25.520	25.000	ug/L	2.4	98.7	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2209865-04	ND	10.260	10.000	ug/L		103		75 - 125	
	MSD	2209865-04	ND	10.180	10.000	ug/L	0.8	102		75 - 125	
Toluene-d8 (Surrogate)	MS	2209865-04	ND	9.9800	10.000	ug/L		99.8		80 - 120	
	MSD	2209865-04	ND	10.020	10.000	ug/L	0.4	100		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2209865-04	ND	9.7000	10.000	ug/L		97.0		80 - 120	
	MSD	2209865-04	ND	9.9100	10.000	ug/L	2.1	99.1		80 - 120	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138523</b>						
Nitrobenzene	B138523-BLK1	0	ug/L			
Methyl acrylate	B138523-BLK1	0	ug/L			
Chloroacetonitrile	B138523-BLK1	0	ug/L			
2-Nitropropane	B138523-BLK1	0	ug/L			
1-Chlorobutane	B138523-BLK1	0	ug/L			
1,1-Dichloropropanone	B138523-BLK1	0	ug/L			

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Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B138643</b>						
1,2,3-Trichloropropane	B138643-BLK1	ND	ug/L	0.0050	0.0010	

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 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### 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: B138643</b>										
1,2,3-Trichloropropane	B138643-BS1	LCS	0.042780	0.050000	ug/L	85.6		80 - 120		

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 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138643</b>		Used client sample: Y - Description: MW-19-3, 04/27/2022 08:40									
1,2,3-Trichloropropane	MS	2209865-04	ND	0.044240	0.050000	ug/L		88.5		70 - 130	
	MSD	2209865-04	ND	0.045610	0.050000	ug/L	3.0	91.2	30	70 - 130	

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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: B138171</b>						
Bicarbonate	B138171-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138171-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138171-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138172</b>						
Bicarbonate	B138172-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138172-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138172-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138376</b>						
Chloride	B138376-BLK1	ND	mg/L	0.50	0.13	
Nitrate as N	B138376-BLK1	ND	mg/L	0.10	0.024	
Sulfate	B138376-BLK1	0.31400	mg/L	1.0	0.14	J
<b>QC Batch ID: B138500</b>						
Total Recoverable Calcium	B138500-BLK1	0.047799	mg/L	0.10	0.014	J
Total Recoverable Magnesium	B138500-BLK1	0.027320	mg/L	0.050	0.019	J
Total Recoverable Sodium	B138500-BLK1	0.068877	mg/L	0.50	0.051	J
Total Recoverable Potassium	B138500-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B138501</b>						
Total Recoverable Calcium	B138501-BLK1	0.043187	mg/L	0.10	0.014	J
Total Recoverable Magnesium	B138501-BLK1	0.026753	mg/L	0.050	0.019	J
Total Recoverable Sodium	B138501-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B138501-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B138502</b>						
Total Recoverable Calcium	B138502-BLK1	0.015118	mg/L	0.10	0.014	J
Total Recoverable Magnesium	B138502-BLK1	0.032002	mg/L	0.050	0.019	J
Total Recoverable Sodium	B138502-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B138502-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B138619</b>						
Total Dissolved Solids @ 180 C	B138619-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B138949</b>						
Nitrite as N	B138949-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B139228</b>						

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Project: JPL- GW Monitoring Wells-CLP  
Project Number: 2Q22  
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: B139228</b>						
Perchlorate	B139228-BLK1	ND	ug/L	2.0	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 Quails
								Percent Recovery	RPD	
<b>QC Batch ID: B138171</b>										
Total Alkalinity as CaCO3	B138171-BS3	LCS	100.74	100.00	mg/L	101		90 - 110		
pH	B138171-BS2	LCS	7.0100	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B138172</b>										
Total Alkalinity as CaCO3	B138172-BS3	LCS	100.59	100.00	mg/L	101		90 - 110		
pH	B138172-BS2	LCS	7.0100	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B138376</b>										
Chloride	B138376-BS1	LCS	52.590	50.000	mg/L	105		90 - 110		
Nitrate as N	B138376-BS1	LCS	5.3140	5.0000	mg/L	106		90 - 110		
Sulfate	B138376-BS1	LCS	102.02	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B138500</b>										
Total Recoverable Calcium	B138500-BS1	LCS	9.7802	10.000	mg/L	97.8		85 - 115		
Total Recoverable Magnesium	B138500-BS1	LCS	9.4569	10.000	mg/L	94.6		85 - 115		
Total Recoverable Sodium	B138500-BS1	LCS	9.5537	10.000	mg/L	95.5		85 - 115		
Total Recoverable Potassium	B138500-BS1	LCS	9.6670	10.000	mg/L	96.7		85 - 115		
<b>QC Batch ID: B138501</b>										
Total Recoverable Calcium	B138501-BS1	LCS	9.7890	10.000	mg/L	97.9		85 - 115		
Total Recoverable Magnesium	B138501-BS1	LCS	9.4385	10.000	mg/L	94.4		85 - 115		
Total Recoverable Sodium	B138501-BS1	LCS	9.5850	10.000	mg/L	95.8		85 - 115		
Total Recoverable Potassium	B138501-BS1	LCS	9.7149	10.000	mg/L	97.1		85 - 115		
<b>QC Batch ID: B138502</b>										
Total Recoverable Calcium	B138502-BS1	LCS	9.1276	10.000	mg/L	91.3		85 - 115		
Total Recoverable Magnesium	B138502-BS1	LCS	9.3347	10.000	mg/L	93.3		85 - 115		
Total Recoverable Sodium	B138502-BS1	LCS	8.9819	10.000	mg/L	89.8		85 - 115		
Total Recoverable Potassium	B138502-BS1	LCS	9.0962	10.000	mg/L	91.0		85 - 115		
<b>QC Batch ID: B138619</b>										
Total Dissolved Solids @ 180 C	B138619-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
	B138619-BSD1	LCS	595.00	586.00	mg/L	102	0	90 - 110	200	
<b>QC Batch ID: B138949</b>										
Nitrite as N	B138949-BS1	LCS	0.48536	0.50000	mg/L	97.1		90 - 110		
<b>QC Batch ID: B139228</b>										
Perchlorate	B139228-BS1	LCS	9.1022	10.000	ug/L	91.0		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			
								Percent Recovery	RPD	Percent Recovery	Lab Quails
<b>QC Batch ID: B138171</b>		Used client sample: Y - Description: MW-19-3, 04/27/2022 08:40									
Bicarbonate	DUP	2209865-04	237.60	257.73		mg/L	8.1		10		
Carbonate	DUP	2209865-04	ND	ND		mg/L			10		
Total Alkalinity as CaCO3	DUP	2209865-04	194.87	211.38		mg/L	8.1		10		
pH	DUP	2209865-04	7.6000	7.6000		pH Units	0		20		
<b>QC Batch ID: B138172</b>		Used client sample: N									
Bicarbonate	DUP	2209878-01	102.50	102.14		mg/L	0.4		10		
Carbonate	DUP	2209878-01	ND	ND		mg/L			10		
Total Alkalinity as CaCO3	DUP	2209878-01	84.070	83.770		mg/L	0.4		10		
pH	DUP	2209878-01	8.0400	8.0600		pH Units	0.2		20		
<b>QC Batch ID: B138376</b>		Used client sample: Y - Description: MW-19-3, 04/27/2022 08:40									
Chloride	DUP	2209865-04	95.857	97.410		mg/L	1.6		10		
	MS	2209865-04	95.857	149.82	50.505	mg/L		107		80 - 120	
	MSD	2209865-04	95.857	149.19	50.505	mg/L	0.4	106	10	80 - 120	
Nitrate as N	DUP	2209865-04	11.176	11.296		mg/L	1.1		10		
	MS	2209865-04	11.176	16.577	5.0505	mg/L		107		80 - 120	
	MSD	2209865-04	11.176	16.507	5.0505	mg/L	0.4	106	10	80 - 120	
Sulfate	DUP	2209865-04	119.34	121.27		mg/L	1.6		10		
	MS	2209865-04	119.34	231.65	101.01	mg/L		111		80 - 120	
	MSD	2209865-04	119.34	231.37	101.01	mg/L	0.1	111	10	80 - 120	
<b>QC Batch ID: B138500</b>		Used client sample: Y - Description: MW-19-3, 04/27/2022 08:40									
Total Recoverable Calcium	DUP	2209865-04	99.045	100.46		mg/L	1.4		20		
	MS	2209865-04	99.045	111.56	10.000	mg/L		125		75 - 125	
	MSD	2209865-04	99.045	108.94	10.000	mg/L	2.4	99.0	20	75 - 125	
Total Recoverable Magnesium	DUP	2209865-04	32.970	33.431		mg/L	1.4		20		
	MS	2209865-04	32.970	42.893	10.000	mg/L		99.2		75 - 125	
	MSD	2209865-04	32.970	42.166	10.000	mg/L	1.7	92.0	20	75 - 125	
Total Recoverable Sodium	DUP	2209865-04	31.917	32.427		mg/L	1.6		20		
	MS	2209865-04	31.917	42.619	10.000	mg/L		107		75 - 125	
	MSD	2209865-04	31.917	41.728	10.000	mg/L	2.1	98.1	20	75 - 125	
Total Recoverable Potassium	DUP	2209865-04	2.6786	2.7318		mg/L	2.0		20		
	MS	2209865-04	2.6786	12.554	10.000	mg/L		98.8		75 - 125	
	MSD	2209865-04	2.6786	12.507	10.000	mg/L	0.4	98.3	20	75 - 125	
<b>QC Batch ID: B138501</b>		Used client sample: Y - Description: MW-04-5, 04/27/2022 13:20									
Total Recoverable Calcium	DUP	2209865-07	42.646	43.910		mg/L	2.9		20		
	MS	2209865-07	42.646	48.911	10.000	mg/L		62.7		75 - 125	A03
	MSD	2209865-07	42.646	53.159	10.000	mg/L	8.3	105	20	75 - 125	

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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	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138501</b>		Used client sample: Y - Description: MW-04-5, 04/27/2022 13:20									
Total Recoverable Magnesium	DUP	2209865-07	17.568	18.106		mg/L	3.0		20		
	MS	2209865-07	17.568	26.289	10.000	mg/L		87.2		75 - 125	
	MSD	2209865-07	17.568	28.623	10.000	mg/L	8.5	111	20	75 - 125	
<b>Total Recoverable Sodium</b>	DUP	<b>2209865-07</b>	<b>32.437</b>	<b>33.328</b>		<b>mg/L</b>	<b>2.7</b>		<b>20</b>		
	MS	<b>2209865-07</b>	<b>32.437</b>	<b>39.255</b>	<b>10.000</b>	<b>mg/L</b>		<b>68.2</b>		<b>75 - 125</b>	<b>Q03</b>
	MSD	<b>2209865-07</b>	<b>32.437</b>	<b>42.656</b>	<b>10.000</b>	<b>mg/L</b>	<b>8.3</b>	<b>102</b>	<b>20</b>	<b>75 - 125</b>	
Total Recoverable Potassium	DUP	2209865-07	1.9880	2.0175		mg/L	1.5		20		
	MS	2209865-07	1.9880	11.227	10.000	mg/L		92.4		75 - 125	
	MSD	2209865-07	1.9880	11.534	10.000	mg/L	2.7	95.5	20	75 - 125	
<b>QC Batch ID: B138502</b>		Used client sample: Y - Description: MW-4-4, 04/27/2022 13:45									
Total Recoverable Calcium	DUP	2209865-08	55.917	51.782		mg/L	7.7		20		
	MS	2209865-08	55.917	62.486	10.000	mg/L		65.7		75 - 125	A03
	MSD	2209865-08	55.917	62.859	10.000	mg/L	0.6	69.4	20	75 - 125	A03
Total Recoverable Magnesium	DUP	2209865-08	20.478	18.632		mg/L	9.4		20		
	MS	2209865-08	20.478	29.314	10.000	mg/L		88.4		75 - 125	
	MSD	2209865-08	20.478	29.644	10.000	mg/L	1.1	91.7	20	75 - 125	
Total Recoverable Sodium	DUP	2209865-08	33.950	31.479		mg/L	7.6		20		
	MS	2209865-08	33.950	41.676	10.000	mg/L		77.3		75 - 125	
	MSD	2209865-08	33.950	41.768	10.000	mg/L	0.2	78.2	20	75 - 125	
Total Recoverable Potassium	DUP	2209865-08	2.0679	1.8448		mg/L	11.4		20		
	MS	2209865-08	2.0679	11.310	10.000	mg/L		92.4		75 - 125	
	MSD	2209865-08	2.0679	11.395	10.000	mg/L	0.7	93.3	20	75 - 125	
<b>QC Batch ID: B138619</b>		Used client sample: Y - Description: MW-19-3, 04/27/2022 08:40									
Total Dissolved Solids @ 180 C	DUP	2209865-04	593.33	593.33		mg/L	0		10		
<b>QC Batch ID: B138949</b>		Used client sample: Y - Description: MW-19-3, 04/27/2022 08:40									
Nitrite as N	DUP	2209865-04	ND	ND		mg/L			10		
	MS	2209865-04	ND	0.54647	0.52632	mg/L		104		90 - 110	
	MSD	2209865-04	ND	0.54527	0.52632	mg/L	0.2	104	10	90 - 110	
<b>QC Batch ID: B139228</b>		Used client sample: Y - Description: MW-19-3, 04/27/2022 08:40									
Perchlorate	DUP	2209865-04	3.4129	3.3188		ug/L	2.8		15		
	MS	2209865-04	3.4129	11.632	10.101	ug/L		81.4		80 - 120	
	MSD	2209865-04	3.4129	11.665	10.101	ug/L	0.3	81.7	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: B138500</b>						
Total Recoverable Iron	B138500-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B138501</b>						
Total Recoverable Iron	B138501-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B138502</b>						
Total Recoverable Iron	B138502-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B138586</b>						
Total Recoverable Arsenic	B138586-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B138586-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B138586-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B138587</b>						
Total Recoverable Arsenic	B138587-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B138587-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B138587-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B138683</b>						
Hexavalent Chromium	B138683-BLK1	ND	mg/L	0.00020	0.000020	

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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 Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B138500</b>										
Total Recoverable Iron	B138500-BS1	LCS	936.53	1000.0	ug/L	93.7		85	115	
<b>QC Batch ID: B138501</b>										
Total Recoverable Iron	B138501-BS1	LCS	930.71	1000.0	ug/L	93.1		85	115	
<b>QC Batch ID: B138502</b>										
Total Recoverable Iron	B138502-BS1	LCS	934.69	1000.0	ug/L	93.5		85	115	
<b>QC Batch ID: B138586</b>										
Total Recoverable Arsenic	B138586-BS1	LCS	101.53	100.00	ug/L	102		85	115	
Total Recoverable Chromium	B138586-BS1	LCS	42.956	40.000	ug/L	107		85	115	
Total Recoverable Lead	B138586-BS1	LCS	111.64	100.00	ug/L	112		85	115	
<b>QC Batch ID: B138587</b>										
Total Recoverable Arsenic	B138587-BS1	LCS	103.63	100.00	ug/L	104		85	115	
Total Recoverable Chromium	B138587-BS1	LCS	45.332	40.000	ug/L	113		85	115	
Total Recoverable Lead	B138587-BS1	LCS	106.79	100.00	ug/L	107		85	115	
<b>QC Batch ID: B138683</b>										
Hexavalent Chromium	B138683-BS1	LCS	0.020792	0.020000	mg/L	104		90	110	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/13/2022 14:23  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138500</b>		Used client sample: Y - Description: MW-19-3, 04/27/2022 08:40									
Total Recoverable Iron	DUP	2209865-04	88.887	114.81		ug/L	25.4		20		A02
	MS	2209865-04	88.887	1077.4	1000.0	ug/L		98.8		75 - 125	
	MSD	2209865-04	88.887	1025.2	1000.0	ug/L	5.0	93.6	20	75 - 125	
<b>QC Batch ID: B138501</b>		Used client sample: Y - Description: MW-04-5, 04/27/2022 13:20									
Total Recoverable Iron	DUP	2209865-07	240.02	239.08		ug/L	0.4		20		
	MS	2209865-07	240.02	1112.6	1000.0	ug/L		87.3		75 - 125	
	MSD	2209865-07	240.02	1155.4	1000.0	ug/L	3.8	91.5	20	75 - 125	
<b>QC Batch ID: B138502</b>		Used client sample: Y - Description: MW-4-4, 04/27/2022 13:45									
Total Recoverable Iron	DUP	2209865-08	9171.5	8607.0		ug/L	6.4		20		
	MS	2209865-08	9171.5	9674.5	1000.0	ug/L		50.3		75 - 125	A03
	MSD	2209865-08	9171.5	9859.2	1000.0	ug/L	1.9	68.8	20	75 - 125	A03
<b>QC Batch ID: B138586</b>		Used client sample: Y - Description: MW-19-3, 04/27/2022 08:40									
Total Recoverable Arsenic	DUP	2209865-04	ND	ND		ug/L			20		
	MS	2209865-04	ND	113.67	100.00	ug/L		114		70 - 130	
	MSD	2209865-04	ND	113.07	100.00	ug/L	0.5	113	20	70 - 130	
Total Recoverable Chromium	DUP	2209865-04	1.7610	1.8610		ug/L	5.5		20		J
	MS	2209865-04	1.7610	41.802	40.000	ug/L		100		70 - 130	
	MSD	2209865-04	1.7610	41.500	40.000	ug/L	0.7	99.3	20	70 - 130	
Total Recoverable Lead	DUP	2209865-04	ND	ND		ug/L			20		
	MS	2209865-04	ND	102.80	100.00	ug/L		103		70 - 130	
	MSD	2209865-04	ND	103.01	100.00	ug/L	0.2	103	20	70 - 130	
<b>QC Batch ID: B138587</b>		Used client sample: Y - Description: MW-4-3, 04/27/2022 14:35									
Total Recoverable Arsenic	DUP	2209865-10	1.8510	1.1020		ug/L	50.7		20		J,A02
	MS	2209865-10	1.8510	103.15	100.00	ug/L		101		70 - 130	
	MSD	2209865-10	1.8510	112.19	100.00	ug/L	8.4	110	20	70 - 130	
Total Recoverable Chromium	DUP	2209865-10	1.8330	1.8480		ug/L	0.8		20		J
	MS	2209865-10	1.8330	40.568	40.000	ug/L		96.8		70 - 130	
	MSD	2209865-10	1.8330	41.270	40.000	ug/L	1.7	98.6	20	70 - 130	
Total Recoverable Lead	DUP	2209865-10	ND	ND		ug/L			20		
	MS	2209865-10	ND	97.889	100.00	ug/L		97.9		70 - 130	
	MSD	2209865-10	ND	98.567	100.00	ug/L	0.7	98.6	20	70 - 130	
<b>QC Batch ID: B138683</b>		Used client sample: Y - Description: MW-19-3, 04/27/2022 08:40									
Hexavalent Chromium	DUP	2209865-04	0.0017970	0.0018320		mg/L	1.9		10		
	MS	2209865-04	0.0017970	0.022077	0.020202	mg/L		100		90 - 110	
	MSD	2209865-04	0.0017970	0.021738	0.020202	mg/L	1.5	98.7	10	90 - 110	

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Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 05/13/2022 14:23  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A02	The difference between duplicate readings is less than the quantitation limit.
A03	The sample concentration was more than 4 times the spike level.
A10	Detection and quantitation limits were raised due to matrix interference.
Q03	Matrix spike recovery(s) was(were) not within the control limits.
S05	The sample holding time was exceeded.
V11	The Continuing Calibration Verification (CCV) recovery was not within established control limits.



Date of Report: 05/25/2022

David Conner

Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

Client Project: 2Q22  
BCL Project: JPL- GW Monitoring Wells-CLP  
BCL Work Order: 2209976  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 4/28/2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers  
Client Service Rep

Stuart Buttram  
Operations Manager

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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# Chain of Custody Form

Report to: **Tidewater, Inc.** 4100 Atlas CL - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.pacelabs.com

Client: **David Conner** Project #: **JPL-GW Monitoring** Analysis Requested

Attn: **David Conner** Project Name: **2Q22**

Street Address: **3761 Attucks Drive** BID#

City, State, Zip: **Powell, OH 43065** Sampler(s) Name: **Blaine Tech**

Phone: **626-298-5715** Fax: **614-792-2897**

Email: **david.conner@tidewater.com**

Work Order #: **22-09976**

Sample #	Description	Date Sampled	Time Sampled	VOCs EPA 5242	TRM: Cr, Pb, As, Ca, Mg, K,	Na, Fe	Hexavalent Cr6 - 218.6 (mg/L)	Cl, NO3, NO2, SO4, Perch,	CO3, HCO3, Alk, TDS, pH	Orthophosphate 365.1	1,4 Dioxane 8270SIM	NDMA 1625M	Low-level 1,2,3-TCP	Comments:
-1	TB-4-042822	4/28/22	0700	X	X	X	X	X	X	X	X	X	X	level 4
-2	MW-4-2	4/28/22	0715	X	X	X	X	X	X	X	X	X	X	
-3	MW-4-1	4/28/22	0845	X	X	X	X	X	X	X	X	X	X	
-4	MW-11-4	4/28/22	1045	X	X	X	X	X	X	X	X	X	X	
-5	MW-11-5	4/28/22	1145	X	X	X	X	X	X	X	X	X	X	
-6	MW-11-3	4/28/22	1235	X	X	X	X	X	X	X	X	X	X	
-7	MW-11-2	4/28/22	1310	X	X	X	X	X	X	X	X	X	X	
-8	MW-4-2022	4/28/22	1325	X	X	X	X	X	X	X	X	X	X	
-9	MW-11-1	4/28/22	1425	X	X	X	X	X	X	X	X	X	X	
-10	EB-4-042822	4/28/22	1440	X	X	X	X	X	X	X	X	X	X	

Result Request:  STD  5 Day  4 Day  3 Day  2 Day  1 Day

Rush requests must be approved

Sample Matrix:  Waste Water  Ground Water  Drinking Water  Sludge  Soil  Other

Notes: level 4

CHIEF BY: **[Signature]** DISTRIBUTION

DO Cl<sub>2</sub> BOD MBAS COT

SHORT HOLDING TIME

EDF Required Geotracker  Yes  No

Global ID

1. Relinquished By: **[Signature]** Date: **04/28/22** Time: **1510**

2. Relinquished By: **[Signature]** Date: **04/28/22** Time: **1901**

3. Relinquished By: **[Signature]** Date: **04/28/22** Time: **1901**

Billing:  Same as above

Client: \_\_\_\_\_ Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Attn: \_\_\_\_\_ P.O. #: \_\_\_\_\_

System # (required for CLUP): \_\_\_\_\_

GISKey  Well Star

REV 10/2021

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BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>1</u> Of <u>2</u>	
Submission #: <u>22-09976</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> (W) S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: <u>TB maintain integrity</u>					
Custody Seals Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____ Intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>274</u>		Date/Time <u>4/23/22 1901</u>	
		Temperature: (A) <u>1.1</u> °C / (C) <u>0.9</u> °C		Analyst Init <u>PRE</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		H	H	H	H	H	H			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>		G	G	G	G	G	G			
QT INORGANIC CHEMICAL METALS		I	I	I	I	I	I			
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/503.3/503.1A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER			J.K							
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: PRE Date/Time: 4/23/22 2325 Rev 22 04/13/21  
 A = Actual / C = Corrected



BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>2</u> Of <u>2</u>	
Submission #: <u>22-9976</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> (W) S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>274</u>		Date/Time <u>4/28/22 1901</u>	
		Temperature: (A) <u>0.7</u> °C / (C) <u>0.5</u> °C		Analyst Init <u>PRE</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES								H	H	H
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>								G	G	G
QT INORGANIC CHEMICAL METALS								I	I	I
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PaA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		A-C	A-C	A-C	A-C	A-C	A-C	A-C	A-C	A-C
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL-204- amber unpres		D-F	D-F	D-F	D-F	D-F	D-F	D-F	D-F	D-F
QT EPA 508/608/808/1A										
QT EPA 515.1/815.1A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.3										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCR VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: PRE Date/Time: 4/28/22 2325  
 A = Actual / C = Corrected

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/25/2022 16:54  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information					
2209976-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/28/2022 19:01		
	<b>Project Number:</b>	JPL GW Monitoring	<b>Sampling Date:</b>	04/28/2022 07:00		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	TB-4-042822	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
			Delivery Work Order:			
			Global ID:	0000000000		
			Location ID (FieldPoint):	TB-4-042822		
			Matrix:	WG		
			Sample QC Type (SACode):	CS		
		Cooler ID:				
2209976-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/28/2022 19:01		
	<b>Project Number:</b>	JPL GW Monitoring	<b>Sampling Date:</b>	04/28/2022 07:15		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-4-2	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
			Delivery Work Order:			
			Global ID:	0000000000		
			Location ID (FieldPoint):	MW-4-2		
			Matrix:	WG		
			Sample QC Type (SACode):	CS		
		Cooler ID:				
2209976-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/28/2022 19:01		
	<b>Project Number:</b>	JPL GW Monitoring	<b>Sampling Date:</b>	04/28/2022 08:45		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-4-1	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
			Delivery Work Order:			
			Global ID:	0000000000		
			Location ID (FieldPoint):	MW-4-1		
			Matrix:	WG		
			Sample QC Type (SACode):	CS		
		Cooler ID:				

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/25/2022 16:54  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information				
2209976-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/28/2022 19:01	
	<b>Project Number:</b>	JPL GW Monitoring	<b>Sampling Date:</b>	04/28/2022 10:45	
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---	
	<b>Sampling Point:</b>	MW-11-4	<b>Lab Matrix:</b>	Water	
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater	
	Delivery Work Order:				
	Global ID: 0000000000				
	Location ID (FieldPoint): MW-11-4				
	Matrix: WG				
	Sample QC Type (SACode): CS				
Cooler ID:					
2209976-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/28/2022 19:01	
	<b>Project Number:</b>	JPL GW Monitoring	<b>Sampling Date:</b>	04/28/2022 11:45	
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---	
	<b>Sampling Point:</b>	MW-11-5	<b>Lab Matrix:</b>	Water	
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater	
	Delivery Work Order:				
	Global ID: 0000000000				
	Location ID (FieldPoint): MW-11-5				
	Matrix: WG				
	Sample QC Type (SACode): CS				
Cooler ID:					
2209976-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/28/2022 19:01	
	<b>Project Number:</b>	JPL GW Monitoring	<b>Sampling Date:</b>	04/28/2022 12:35	
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---	
	<b>Sampling Point:</b>	MW-11-3	<b>Lab Matrix:</b>	Water	
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater	
	Delivery Work Order:				
	Global ID: 0000000000				
	Location ID (FieldPoint): MW-11-3				
	Matrix: WG				
	Sample QC Type (SACode): CS				
Cooler ID:					

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/25/2022 16:54  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
2209976-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/28/2022 19:01
	<b>Project Number:</b>	JPL GW Monitoring	<b>Sampling Date:</b> 04/28/2022 13:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-11-2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-11-2
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2209976-08	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/28/2022 19:01
	<b>Project Number:</b>	JPL GW Monitoring	<b>Sampling Date:</b> 04/28/2022 13:25
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	Dup-4-2Q22	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): Dup-4-2Q22
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2209976-09	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/28/2022 19:01
	<b>Project Number:</b>	JPL GW Monitoring	<b>Sampling Date:</b> 04/28/2022 14:25
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-11-1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-11-1
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	

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3761 Attucks Drive  
Powell, OH 43065

**Reported:** 05/25/2022 16:54  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>2209976-10</b>	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/28/2022 19:01
	<b>Project Number:</b>	JPL GW Monitoring	<b>Sampling Date:</b>	04/28/2022 14:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	EB-4-042822	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater
			Delivery Work Order:	
			Global ID: 0000000000	
			Location ID (FieldPoint): EB-4-042822	
			Matrix: WG	
			Sample QC Type (SACode): CS	
		Cooler ID:		

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-01	Client Sample Name: JPL GW Monitoring, TB-4-042822, 4/28/2022 7:00:00AM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209976-01	<b>Client Sample Name:</b> JPL GW Monitoring, TB-4-042822, 4/28/2022 7:00:00AM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-01	Client Sample Name: JPL GW Monitoring, TB-4-042822, 4/28/2022 7:00:00AM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22 00:48	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number





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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209976-01	Client Sample Name: JPL GW Monitoring, TB-4-042822, 4/28/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22	00:48	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209976-02	Client Sample Name:	JPL GW Monitoring, MW-4-2, 4/28/2022 7:15:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>1.4</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209976-02	Client Sample Name:	JPL GW Monitoring, MW-4-2, 4/28/2022 7:15:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
<b>Trichloroethene</b>	<b>0.59</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>	
<b>Trichlorofluoromethane</b>	<b>0.17</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209976-02	<b>Client Sample Name:</b> JPL GW Monitoring, MW-4-2, 4/28/2022 7:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22 01:12	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209976-02	Client Sample Name: JPL GW Monitoring, MW-4-2, 4/28/2022 7:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22	01:12	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209976-02	Client Sample Name: JPL GW Monitoring, MW-4-2, 4/28/2022 7:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	04/29/22 06:00	04/29/22 20:59	ADC	MS-V16	1	B138539	EPA 524.2

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209976-02	Client Sample Name:	JPL GW Monitoring, MW-4-2, 4/28/2022 7:15:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	93	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	31	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	29	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.5	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	260	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	210	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	78	mg/L	0.50	0.13	EPA-300.0	0.21		3
Nitrate as N	4.8	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	90	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	8.08	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	520	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	0.039	mg/L	0.050	0.010	EPA-353.2	0.011	J	6
Perchlorate	46	ug/L	10	4.0	EPA-314.0	ND	A10	7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/03/22 10:05	05/04/22 14:44		AK1	PE-OP4	1	B138679	EPA 200.2
2	SM-2320B	05/04/22 06:30	05/04/22 18:31		RML	MET-1	1	B138187	No Prep
3	EPA-300.0	04/29/22 15:00	04/29/22 15:59		MKB	IC5	1	B138480	No Prep
4	EPA-150.1	05/04/22 06:30	05/04/22 18:31		RML	MET-1	1	B138187	No Prep
5	EPA-160.1	05/03/22 15:30	05/03/22 15:30		CAD	MANUAL	3.333	B138741	No Prep
6	EPA-353.2	04/29/22 13:11	04/29/22 13:45		MC1	KONE-1	1	B138968	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 23:50		KB1	IC6	5	B139416	No Prep

DCN = Data Continuation Number



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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209976-02	Client Sample Name: JPL GW Monitoring, MW-4-2, 4/28/2022 7:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000089	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	1.2	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	1600	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/04/22 09:46		SAV	IC-4	1	B138686	No Prep
2	EPA-200.8	05/03/22 10:50	05/03/22 23:51		AK1	PE-EL2	1	B138687	EPA 200.2
3	EPA-200.7	05/03/22 10:05	05/04/22 14:44		AK1	PE-OP4	1	B138679	EPA 200.2

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-03		Client Sample Name: JPL GW Monitoring, MW-4-1, 4/28/2022 8:45:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209976-03      **Client Sample Name:** JPL GW Monitoring, MW-4-1, 4/28/2022 8:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-03	Client Sample Name: JPL GW Monitoring, MW-4-1, 4/28/2022 8:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	96.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22 01:36	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209976-03	Client Sample Name: JPL GW Monitoring, MW-4-1, 4/28/2022 8:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22	01:36	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/25/2022 16:54  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209976-03	<b>Client Sample Name:</b> JPL GW Monitoring, MW-4-1, 4/28/2022 8:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/02/22 06:00	05/02/22 10:18	ADC	MS-V16	1	B138539	EPA 524.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/25/2022 16:54  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## 1,4-Dioxane (EPA Method 8270C)

<b>BCL Sample ID:</b> 2209976-03	<b>Client Sample Name:</b> JPL GW Monitoring, MW-4-1, 4/28/2022 8:45:00AM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,4-Dioxane	ND	ug/L	1.0	0.27	EPA-8270C	ND		1
Naphthalene-d8 (Surrogate)	77.4	%	70 - 130 (LCL - UCL)		EPA-8270C			1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-8270C	05/05/22 10:15	05/09/22	20:13	OLH	MS-B4	1.078	B139528	EPA 3510C

DCN = Data Continuation Number



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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209976-03	Client Sample Name:	JPL GW Monitoring, MW-4-1, 4/28/2022 8:45:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	56	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	17	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	18	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	13	mg/L	0.50	0.13	EPA-300.0	0.21		3
Nitrate as N	1.3	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	40	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	7.93	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	300	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	0.011	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/03/22 10:05	05/04/22 14:57		AK1	PE-OP4	1	B138679	EPA 200.2
2	SM-2320B	05/04/22 06:30	05/04/22 18:40		RML	MET-1	1	B138187	No Prep
3	EPA-300.0	04/29/22 15:00	04/29/22 16:17		MKB	IC5	1	B138480	No Prep
4	EPA-150.1	05/04/22 06:30	05/04/22 18:40		RML	MET-1	1	B138187	No Prep
5	EPA-160.1	05/03/22 15:30	05/03/22 15:30		CAD	MANUAL	2	B138741	No Prep
6	EPA-353.2	04/29/22 13:11	04/29/22 13:45		MC1	KONE-1	1	B138968	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 15:40		KB1	IC6	1	B139416	No Prep

DCN = Data Continuation Number



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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2209976-03	<b>Client Sample Name:</b> JPL GW Monitoring, MW-4-1, 4/28/2022 8:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00018	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
<b>Total Recoverable Chromium</b>	<b>0.70</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/04/22 10:43		SAV	IC-4	1	B138686	No Prep
2	EPA-200.8	05/03/22 10:50	05/03/22 23:53		AK1	PE-EL2	1	B138687	EPA 200.2
3	EPA-200.7	05/03/22 10:05	05/04/22 14:57		AK1	PE-OP4	1	B138679	EPA 200.2

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-04	Client Sample Name: JPL GW Monitoring, MW-11-4, 4/28/2022 10:45:00AM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-04		Client Sample Name: JPL GW Monitoring, MW-11-4, 4/28/2022 10:45:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.76</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-04	Client Sample Name: JPL GW Monitoring, MW-11-4, 4/28/2022 10:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22 02:01	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209976-04	Client Sample Name: JPL GW Monitoring, MW-11-4, 4/28/2022 10:45:00AM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22	02:01	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209976-04	Client Sample Name: JPL GW Monitoring, MW-11-4, 4/28/2022 10:45:00AM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/02/22 06:00	05/02/22 10:45	ADC	MS-V16	1	B138539	EPA 524.2

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209976-04	Client Sample Name:	JPL GW Monitoring, MW-11-4, 4/28/2022 10:45:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	11	mg/L	0.10	0.014	EPA-200.7	ND		1	
Total Recoverable Magnesium	11	mg/L	0.050	0.019	EPA-200.7	ND		1	
Total Recoverable Sodium	26	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	2.1	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	130	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	5.4	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	110	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	11	mg/L	0.50	0.13	EPA-300.0	0.21		3	
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	3.9	mg/L	1.0	0.14	EPA-300.0	0.24		3	
pH	8.63	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	160	mg/L	10	5.0	EPA-160.1	ND		5	
Nitrite as N	0.013	mg/L	0.050	0.010	EPA-353.2	0.011	J	6	
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/03/22 10:05	05/04/22	15:03	AK1	PE-OP4	1	B138679	EPA 200.2
2	SM-2320B	05/04/22 06:30	05/04/22	18:47	RML	MET-1	1	B138187	No Prep
3	EPA-300.0	04/29/22 15:00	04/29/22	16:35	MKB	IC5	1	B138480	No Prep
4	EPA-150.1	05/04/22 06:30	05/04/22	18:47	RML	MET-1	1	B138187	No Prep
5	EPA-160.1	05/03/22 15:30	05/03/22	15:30	CAD	MANUAL	1	B138741	No Prep
6	EPA-353.2	04/29/22 13:11	04/29/22	13:45	MC1	KONE-1	1	B138968	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22	15:56	KB1	IC6	1	B139416	No Prep

DCN = Data Continuation Number

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2209976-04	<b>Client Sample Name:</b> JPL GW Monitoring, MW-11-4, 4/28/2022 10:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00013	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	3.8	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/04/22 10:53	SAV	IC-4	1	B138686	No Prep
2	EPA-200.8	05/03/22 10:50	05/03/22 23:54	AK1	PE-EL2	1	B138687	EPA 200.2
3	EPA-200.7	05/03/22 10:05	05/04/22 15:03	AK1	PE-OP4	1	B138679	EPA 200.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-05	Client Sample Name: JPL GW Monitoring, MW-11-5, 4/28/2022 11:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209976-05	Client Sample Name:	JPL GW Monitoring, MW-11-5, 4/28/2022 11:45:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
<b>Carbon disulfide</b>	<b>0.59</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.48</b>	<b>EPA-524.2</b>	ND		<b>1</b>	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-05	Client Sample Name: JPL GW Monitoring, MW-11-5, 4/28/2022 11:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22 02:25	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number

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 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209976-05	Client Sample Name: JPL GW Monitoring, MW-11-5, 4/28/2022 11:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22	02:25	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209976-05	Client Sample Name: JPL GW Monitoring, MW-11-5, 4/28/2022 11:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/02/22 06:00	05/02/22 11:11	ADC	MS-V16	1	B138539	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209976-05	Client Sample Name:	JPL GW Monitoring, MW-11-5, 4/28/2022 11:45:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	25	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	2.7	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	49	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	1.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	160	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	4.3	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	140	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	10	mg/L	0.50	0.13	EPA-300.0	0.21		3
Nitrate as N	0.14	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	19	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	8.47	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	220	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	0.010	mg/L	0.050	0.010	EPA-353.2	0.011	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/03/22 10:05	05/04/22 15:05		AK1	PE-OP4	1	B138679	EPA 200.2
2	SM-2320B	05/04/22 06:30	05/04/22 18:54		RML	MET-1	1	B138187	No Prep
3	EPA-300.0	04/29/22 15:00	04/29/22 16:53		MKB	IC5	1	B138480	No Prep
4	EPA-150.1	05/04/22 06:30	05/04/22 18:54		RML	MET-1	1	B138187	No Prep
5	EPA-160.1	05/03/22 15:30	05/03/22 15:30		CAD	MANUAL	2	B138741	No Prep
6	EPA-353.2	04/29/22 13:11	04/29/22 13:45		MC1	KONE-1	1	B138968	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 16:42		KB1	IC6	1	B139416	No Prep

DCN = Data Continuation Number

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209976-05	Client Sample Name: JPL GW Monitoring, MW-11-5, 4/28/2022 11:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	ND	mg/L	0.00020	0.000020	EPA-218.6	ND		1
<b>Total Recoverable Arsenic</b>	<b>6.1</b>	<b>ug/L</b>	<b>2.0</b>	<b>0.70</b>	<b>EPA-200.8</b>	ND		2
<b>Total Recoverable Chromium</b>	<b>6.1</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND		2
<b>Total Recoverable Iron</b>	<b>3500</b>	<b>ug/L</b>	<b>50</b>	<b>30</b>	<b>EPA-200.7</b>	ND		3
<b>Total Recoverable Lead</b>	<b>2.4</b>	<b>ug/L</b>	<b>1.0</b>	<b>0.10</b>	<b>EPA-200.8</b>	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/04/22 11:02	SAV	IC-4	1	B138686	No Prep
2	EPA-200.8	05/03/22 10:50	05/03/22 23:56	AK1	PE-EL2	1	B138687	EPA 200.2
3	EPA-200.7	05/03/22 10:05	05/04/22 15:05	AK1	PE-OP4	1	B138679	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-06	Client Sample Name: JPL GW Monitoring, MW-11-3, 4/28/2022 12:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209976-06	Client Sample Name:	JPL GW Monitoring, MW-11-3, 4/28/2022 12:35:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
<b>Styrene</b>	<b>0.18</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.12</b>	<b>EPA-524.2</b>	ND	J	1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
<b>Trichloroethene</b>	<b>0.33</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	J	1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
<b>Carbon disulfide</b>	<b>0.64</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.48</b>	<b>EPA-524.2</b>	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2209976-06	<b>Client Sample Name:</b> JPL GW Monitoring, MW-11-3, 4/28/2022 12:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22 02:50	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



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 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209976-06	Client Sample Name: JPL GW Monitoring, MW-11-3, 4/28/2022 12:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22	02:50	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



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### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209976-06	Client Sample Name: JPL GW Monitoring, MW-11-3, 4/28/2022 12:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/02/22 06:00	05/02/22 11:37	ADC	MS-V16	1	B138539	EPA 524.2

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Reported: 05/25/2022 16:54  
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 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209976-06	Client Sample Name:	JPL GW Monitoring, MW-11-3, 4/28/2022 12:35:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	14	mg/L	0.10	0.014	EPA-200.7	ND		1	
Total Recoverable Magnesium	7.5	mg/L	0.050	0.019	EPA-200.7	ND		1	
Total Recoverable Sodium	25	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	2.0	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	130	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	5.2	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	110	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	11	mg/L	0.50	0.13	EPA-300.0	0.21		3	
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	3.0	mg/L	1.0	0.14	EPA-300.0	0.24		3	
pH	8.64	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	160	mg/L	10	5.0	EPA-160.1	ND		5	
Nitrite as N	0.014	mg/L	0.050	0.010	EPA-353.2	0.011	J	6	
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/03/22 10:05	05/04/22 15:07		AK1	PE-OP4	1	B138679	EPA 200.2
2	SM-2320B	05/04/22 06:30	05/04/22 19:24		RML	MET-1	1	B138188	No Prep
3	EPA-300.0	04/29/22 15:00	04/29/22 17:11		MKB	IC5	1	B138480	No Prep
4	EPA-150.1	05/04/22 06:30	05/04/22 19:24		RML	MET-1	1	B138188	No Prep
5	EPA-160.1	05/03/22 15:30	05/03/22 15:30		CAD	MANUAL	1	B138741	No Prep
6	EPA-353.2	04/29/22 13:11	04/29/22 13:45		MC1	KONE-1	1	B138968	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 16:57		KB1	IC6	1	B139416	No Prep

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209976-06	Client Sample Name: JPL GW Monitoring, MW-11-3, 4/28/2022 12:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000094	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	3.5	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	0.66	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	64	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/04/22 11:12	SAV	IC-4	1	B138686	No Prep
2	EPA-200.8	05/03/22 10:50	05/03/22 23:58	AK1	PE-EL2	1	B138687	EPA 200.2
3	EPA-200.7	05/03/22 10:05	05/04/22 15:07	AK1	PE-OP4	1	B138679	EPA 200.2

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 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209976-07      **Client Sample Name:** JPL GW Monitoring, MW-11-2, 4/28/2022 1:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2209976-07      **Client Sample Name:** JPL GW Monitoring, MW-11-2, 4/28/2022 1:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-07	Client Sample Name: JPL GW Monitoring, MW-11-2, 4/28/2022 1:10:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22 03:14	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number





Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209976-07	Client Sample Name: JPL GW Monitoring, MW-11-2, 4/28/2022 1:10:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22	03:14	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209976-07	Client Sample Name: JPL GW Monitoring, MW-11-2, 4/28/2022 1:10:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/02/22 06:00	05/02/22 12:29	ADC	MS-V16	1	B138539	EPA 524.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209976-07	Client Sample Name:	JPL GW Monitoring, MW-11-2, 4/28/2022 1:10:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	46	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	18	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	23	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	3.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	220	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	15	mg/L	0.50	0.13	EPA-300.0	0.21		3
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	34	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	8.33	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	290	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	0.010	mg/L	0.050	0.010	EPA-353.2	0.011	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/03/22 10:05	05/04/22 15:10		AK1	PE-OP4	1	B138679	EPA 200.2
2	SM-2320B	05/04/22 06:30	05/04/22 19:36		RML	MET-1	1	B138188	No Prep
3	EPA-300.0	04/29/22 15:00	04/29/22 17:47		MKB	IC5	1	B138480	No Prep
4	EPA-150.1	05/04/22 06:30	05/04/22 19:36		RML	MET-1	1	B138188	No Prep
5	EPA-160.1	05/03/22 15:30	05/03/22 15:30		CAD	MANUAL	2	B138741	No Prep
6	EPA-353.2	04/29/22 13:11	04/29/22 13:49		MC1	KONE-1	1	B138968	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 17:13		KB1	IC6	1	B139416	No Prep

DCN = Data Continuation Number

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209976-07	Client Sample Name: JPL GW Monitoring, MW-11-2, 4/28/2022 1:10:00PM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000091	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	1.0	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	210	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/04/22 14:34	MKB	IC-4	1	B138686	No Prep
2	EPA-200.8	05/03/22 10:50	05/03/22 23:59	AK1	PE-EL2	1	B138687	EPA 200.2
3	EPA-200.7	05/03/22 10:05	05/04/22 15:10	AK1	PE-OP4	1	B138679	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-08	Client Sample Name: JPL GW Monitoring, Dup-4-2Q22, 4/28/2022 1:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209976-08	Client Sample Name:	JPL GW Monitoring, Dup-4-2Q22, 4/28/2022 1:25:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-08	Client Sample Name: JPL GW Monitoring, Dup-4-2Q22, 4/28/2022 1:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22 03:39	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209976-08	Client Sample Name: JPL GW Monitoring, Dup-4-2Q22, 4/28/2022 1:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22	03:39	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number





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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209976-08	<b>Client Sample Name:</b> JPL GW Monitoring, Dup-4-2Q22, 4/28/2022 1:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/02/22 06:00	05/02/22 12:55	ADC	MS-V16	1	B138539	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209976-08	Client Sample Name:	JPL GW Monitoring, Dup-4-2Q22, 4/28/2022 1:25:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	48	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	19	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	23	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	3.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	15	mg/L	0.50	0.13	EPA-300.0	0.21		3
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	34	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	8.29	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	290	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	0.012	mg/L	0.050	0.010	EPA-353.2	0.011	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/03/22 10:05	05/04/22 15:12		AK1	PE-OP4	1	B138679	EPA 200.2
2	SM-2320B	05/04/22 06:30	05/04/22 19:43		RML	MET-1	1	B138188	No Prep
3	EPA-300.0	04/29/22 15:00	04/29/22 18:05		MKB	IC5	1	B138480	No Prep
4	EPA-150.1	05/04/22 06:30	05/04/22 19:43		RML	MET-1	1	B138188	No Prep
5	EPA-160.1	05/03/22 15:30	05/03/22 15:30		CAD	MANUAL	2	B138741	No Prep
6	EPA-353.2	04/29/22 13:11	04/29/22 13:49		MC1	KONE-1	1	B138968	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 17:28		KB1	IC6	1	B139416	No Prep

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209976-08	Client Sample Name: JPL GW Monitoring, Dup-4-2Q22, 4/28/2022 1:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000072	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	1.0	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	210	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/04/22 14:44		MKB	IC-4	1	B138686	No Prep
2	EPA-200.8	05/03/22 10:50	05/04/22 00:02		AK1	PE-EL2	1	B138687	EPA 200.2
3	EPA-200.7	05/03/22 10:05	05/04/22 15:12		AK1	PE-OP4	1	B138679	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209976-09	Client Sample Name:	JPL GW Monitoring, MW-11-1, 4/28/2022 2:25:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-09	Client Sample Name: JPL GW Monitoring, MW-11-1, 4/28/2022 2:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-09	Client Sample Name: JPL GW Monitoring, MW-11-1, 4/28/2022 2:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22 04:03	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209976-09	Client Sample Name: JPL GW Monitoring, MW-11-1, 4/28/2022 2:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22	04:03	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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**Reported:** 05/25/2022 16:54  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2209976-09	<b>Client Sample Name:</b> JPL GW Monitoring, MW-11-1, 4/28/2022 2:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/02/22 06:00	05/02/22 13:21	ADC	MS-V16	1	B138539	EPA 524.2

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID: 2209976-09	Client Sample Name: JPL GW Monitoring, MW-11-1, 4/28/2022 2:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	71	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	21	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	31	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	3.6	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	240	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	16	mg/L	0.50	0.13	EPA-300.0	0.21		3
pH	8.22	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	310	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	0.019	mg/L	0.050	0.010	EPA-353.2	0.011	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7
ortho-Phosphate as P	ND	mg/L	0.050	0.017	EPA-365.1	ND		8

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/03/22 10:05	05/04/22 15:14		AK1	PE-OP4	1	B138679	EPA 200.2
2	SM-2320B	05/04/22 06:30	05/04/22 19:50		RML	MET-1	1	B138188	No Prep
3	EPA-300.0	04/29/22 15:00	04/29/22 18:23		MKB	IC5	1	B138480	No Prep
4	EPA-150.1	05/04/22 06:30	05/04/22 19:50		RML	MET-1	1	B138188	No Prep
5	EPA-160.1	05/03/22 15:30	05/03/22 15:30		CAD	MANUAL	2	B138741	No Prep
6	EPA-353.2	04/29/22 13:11	04/29/22 13:49		MC1	KONE-1	1	B138968	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 17:43		KB1	IC6	1	B139416	No Prep
8	EPA-365.1	04/29/22 08:32	04/29/22 09:07		MC1	SC-2	1	B139809	No Prep

DCN = Data Continuation Number

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209976-09	Client Sample Name: JPL GW Monitoring, MW-11-1, 4/28/2022 2:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00016	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	0.87	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/04/22 14:53		MKB	IC-4	1	B138686	No Prep
2	EPA-200.8	05/03/22 10:50	05/04/22 00:04		AK1	PE-EL2	1	B138687	EPA 200.2
3	EPA-200.7	05/03/22 10:05	05/04/22 15:14		AK1	PE-OP4	1	B138679	EPA 200.2

DCN = Data Continuation Number



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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2209976-10	Client Sample Name:	JPL GW Monitoring, EB-4-042822, 4/28/2022 2:40:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-10	Client Sample Name: JPL GW Monitoring, EB-4-042822, 4/28/2022 2:40:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2209976-10	Client Sample Name: JPL GW Monitoring, EB-4-042822, 4/28/2022 2:40:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22 04:27	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2209976-10	Client Sample Name: JPL GW Monitoring, EB-4-042822, 4/28/2022 2:40:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 12:00	05/03/22	04:27	MGC	MS-V5	1	B138524	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2209976-10	Client Sample Name: JPL GW Monitoring, EB-4-042822, 4/28/2022 2:40:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/02/22 06:00	05/02/22 13:47	ADC	MS-V16	1	B138539	EPA 524.2

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2209976-10	Client Sample Name:	JPL GW Monitoring, EB-4-042822, 4/28/2022 2:40:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	0.053	mg/L	0.10	0.014	EPA-200.7	ND	J	1
Total Recoverable Magnesium	ND	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	0.17	mg/L	0.50	0.051	EPA-200.7	ND	J	1
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	ND	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	ND	mg/L	0.50	0.13	EPA-300.0	0.21		3
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	ND	mg/L	1.0	0.14	EPA-300.0	0.24		3
pH	6.24	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	4.0	mg/L	6.7	3.3	EPA-160.1	ND	J	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	0.011		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/03/22 10:05	05/04/22 15:16		AK1	PE-OP4	1	B138679	EPA 200.2
2	SM-2320B	05/04/22 06:30	05/04/22 19:59		RML	MET-1	1	B138188	No Prep
3	EPA-300.0	04/29/22 15:00	04/29/22 17:29		MKB	IC5	1	B138480	No Prep
4	EPA-150.1	05/04/22 06:30	05/04/22 19:59		RML	MET-1	1	B138188	No Prep
5	EPA-160.1	05/03/22 15:30	05/03/22 15:30		CAD	MANUAL	0.667	B138741	No Prep
6	EPA-353.2	04/29/22 13:11	04/29/22 13:49		MC1	KONE-1	1	B138968	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 17:59		KB1	IC6	1	B139416	No Prep

DCN = Data Continuation Number

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2209976-10	Client Sample Name: JPL GW Monitoring, EB-4-042822, 4/28/2022 2:40:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000075	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	0.55	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/04/22 15:22		MKB	IC-4	1	B138686	No Prep
2	EPA-200.8	05/03/22 10:50	05/04/22 00:13		AK1	PE-EL2	1	B138687	EPA 200.2
3	EPA-200.7	05/03/22 10:05	05/04/22 15:16		AK1	PE-OP4	1	B138679	EPA 200.2

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138524</b>						
Benzene	B138524-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B138524-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B138524-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B138524-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B138524-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B138524-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B138524-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B138524-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B138524-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B138524-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B138524-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B138524-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B138524-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B138524-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B138524-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B138524-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B138524-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B138524-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B138524-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B138524-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B138524-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B138524-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B138524-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B138524-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B138524-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B138524-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B138524-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B138524-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B138524-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B138524-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B138524-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B138524-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B138524-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B138524-BLK1	ND	ug/L	0.50	0.14	

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138524</b>						
trans-1,3-Dichloropropene	B138524-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B138524-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B138524-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B138524-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B138524-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B138524-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B138524-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B138524-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B138524-BLK1	ND	ug/L	0.50	0.12	
Styrene	B138524-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B138524-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B138524-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B138524-BLK1	ND	ug/L	0.50	0.23	
Toluene	B138524-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B138524-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B138524-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B138524-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B138524-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B138524-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B138524-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B138524-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B138524-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B138524-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B138524-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B138524-BLK1	ND	ug/L	0.50	0.18	
Acetone	B138524-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B138524-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B138524-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B138524-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B138524-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B138524-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B138524-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B138524-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B138524-BLK1	ND	ug/L	4.0	1.3	

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138524</b>						
Ethyl t-butyl ether	B138524-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B138524-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B138524-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B138524-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B138524-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B138524-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B138524-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B138524-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B138524-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B138524-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B138524-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B138524-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B138524-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B138524-BLK1</b>	<b>99.8</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B138524-BLK1</b>	<b>97.0</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B138524-BLK1</b>	<b>91.4</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138524</b>										
Benzene	B138524-BS1	LCS	23.220	25.000	ug/L	92.9		70	130	
Bromodichloromethane	B138524-BS1	LCS	23.960	25.000	ug/L	95.8		70	130	
Chlorobenzene	B138524-BS1	LCS	23.040	25.000	ug/L	92.2		70	130	
Chloroethane	B138524-BS1	LCS	25.390	25.000	ug/L	102		70	130	
1,4-Dichlorobenzene	B138524-BS1	LCS	22.690	25.000	ug/L	90.8		70	130	
1,1-Dichloroethane	B138524-BS1	LCS	24.740	25.000	ug/L	99.0		70	130	
1,1-Dichloroethene	B138524-BS1	LCS	25.060	25.000	ug/L	100		70	130	
Toluene	B138524-BS1	LCS	23.030	25.000	ug/L	92.1		70	130	
Trichloroethene	B138524-BS1	LCS	25.370	25.000	ug/L	101		70	130	
1,2-Dichloroethane-d4 (Surrogate)	B138524-BS1	LCS	10.120	10.000	ug/L	101		75	125	
Toluene-d8 (Surrogate)	B138524-BS1	LCS	10.070	10.000	ug/L	101		80	120	
4-Bromofluorobenzene (Surrogate)	B138524-BS1	LCS	9.9000	10.000	ug/L	99.0		80	120	

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138524</b>		Used client sample: N									
Benzene	MS	2209945-03	ND	23.910	25.000	ug/L		95.6		70 - 130	
	MSD	2209945-03	ND	24.910	25.000	ug/L	4.1	99.6	20	70 - 130	
Bromodichloromethane	MS	2209945-03	ND	24.480	25.000	ug/L		97.9		70 - 130	
	MSD	2209945-03	ND	25.630	25.000	ug/L	4.6	103	20	70 - 130	
Chlorobenzene	MS	2209945-03	ND	22.850	25.000	ug/L		91.4		70 - 130	
	MSD	2209945-03	ND	24.220	25.000	ug/L	5.8	96.9	20	70 - 130	
Chloroethane	MS	2209945-03	ND	24.500	25.000	ug/L		98.0		70 - 130	
	MSD	2209945-03	ND	26.010	25.000	ug/L	6.0	104	20	70 - 130	
1,4-Dichlorobenzene	MS	2209945-03	ND	22.230	25.000	ug/L		88.9		70 - 130	
	MSD	2209945-03	ND	23.630	25.000	ug/L	6.1	94.5	20	70 - 130	
1,1-Dichloroethane	MS	2209945-03	ND	25.470	25.000	ug/L		102		70 - 130	
	MSD	2209945-03	ND	26.700	25.000	ug/L	4.7	107	20	70 - 130	
1,1-Dichloroethene	MS	2209945-03	ND	25.580	25.000	ug/L		102		70 - 130	
	MSD	2209945-03	ND	26.530	25.000	ug/L	3.6	106	20	70 - 130	
Toluene	MS	2209945-03	ND	23.030	25.000	ug/L		92.1		70 - 130	
	MSD	2209945-03	ND	23.790	25.000	ug/L	3.2	95.2	20	70 - 130	
Trichloroethene	MS	2209945-03	ND	24.160	25.000	ug/L		96.6		70 - 130	
	MSD	2209945-03	ND	24.700	25.000	ug/L	2.2	98.8	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2209945-03	ND	10.330	10.000	ug/L		103		75 - 125	
	MSD	2209945-03	ND	10.450	10.000	ug/L	1.2	104		75 - 125	
Toluene-d8 (Surrogate)	MS	2209945-03	ND	10.060	10.000	ug/L		101		80 - 120	
	MSD	2209945-03	ND	9.9200	10.000	ug/L	1.4	99.2		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2209945-03	ND	9.8400	10.000	ug/L		98.4		80 - 120	
	MSD	2209945-03	ND	10.060	10.000	ug/L	2.2	101		80 - 120	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138524</b>						
Nitrobenzene	B138524-BLK1	0	ug/L			
Methyl acrylate	B138524-BLK1	0	ug/L			
Chloroacetonitrile	B138524-BLK1	0	ug/L			
2-Nitropropane	B138524-BLK1	0	ug/L			
1-Chlorobutane	B138524-BLK1	0	ug/L			
1,1-Dichloropropanone	B138524-BLK1	0	ug/L			

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 Project Number: 2Q22  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B138539</b>						
1,2,3-Trichloropropane	B138539-BLK1	ND	ug/L	0.0050	0.0010	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### 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: B138539</b>										
1,2,3-Trichloropropane	B138539-BS1	LCS	0.041400	0.050000	ug/L	82.8		80 - 120		

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 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals	
									RPD	Percent Recovery		
<b>QC Batch ID: B138539</b>		Used client sample: N										
1,2,3-Trichloropropane	MS	2209635-20	ND	0.040170	0.050000	ug/L		80.3			70 - 130	
	MSD	2209635-20	ND	0.042520	0.050000	ug/L	5.7	85.0	30		70 - 130	

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Project Number: 2Q22  
Project Manager: David Conner

## 1,4-Dioxane (EPA Method 8270C)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B139528</b>						
1,4-Dioxane	B139528-BLK1	ND	ug/L	1.0	0.27	
Naphthalene-d8 (Surrogate)	B139528-BLK1	77.9	%	70 - 130 (LCL - UCL)		

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 Project Manager: David Conner

## 1,4-Dioxane (EPA Method 8270C)

### 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: B139528</b>										
1,4-Dioxane	B139528-BS1	LCS	40.352	50.000	ug/L	80.7		70 - 130		
	B139528-BSD1	LCSD	41.250	50.000	ug/L	82.5	2.2	70 - 130		30
Naphthalene-d8 (Surrogate)	B139528-BS1	LCS	6.6833	8.0000	ug/L	83.5		70 - 130		
	B139528-BSD1	LCSD	6.3100	8.0000	ug/L	78.9	5.7	70 - 130		

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 Project Manager: David Conner

## 1,4-Dioxane (EPA Method 8270C)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B139528</b>		Used client sample: N									
1,4-Dioxane	MS	2209635-66	ND	39.818	50.000	ug/L		79.6			70 - 130
	MSD	2209635-66	ND	40.808	50.000	ug/L	2.5	81.6	30		70 - 130
Naphthalene-d8 (Surrogate)	MS	2209635-66	ND	7.6032	8.0000	ug/L		95.0			70 - 130
	MSD	2209635-66	ND	6.5538	8.0000	ug/L	14.8	81.9			70 - 130

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Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138187</b>						
Bicarbonate	B138187-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138187-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138187-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138188</b>						
Bicarbonate	B138188-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138188-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138188-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138480</b>						
Chloride	B138480-BLK1	0.21000	mg/L	0.50	0.13	J
Nitrate as N	B138480-BLK1	ND	mg/L	0.10	0.024	
Sulfate	B138480-BLK1	0.23600	mg/L	1.0	0.14	J
<b>QC Batch ID: B138679</b>						
Total Recoverable Calcium	B138679-BLK1	ND	mg/L	0.10	0.014	
Total Recoverable Magnesium	B138679-BLK1	ND	mg/L	0.050	0.019	
Total Recoverable Sodium	B138679-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B138679-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B138741</b>						
Total Dissolved Solids @ 180 C	B138741-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B138968</b>						
Nitrite as N	B138968-BLK1	0.010945	mg/L	0.050	0.010	J
<b>QC Batch ID: B139416</b>						
Perchlorate	B139416-BLK1	ND	ug/L	2.0	0.81	
<b>QC Batch ID: B139809</b>						
ortho-Phosphate as P	B139809-BLK1	ND	mg/L	0.050	0.017	

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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: B138187</b>										
Total Alkalinity as CaCO3	B138187-BS3	LCS	102.54	100.00	mg/L	103		90 - 110		
pH	B138187-BS2	LCS	7.0100	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B138188</b>										
Total Alkalinity as CaCO3	B138188-BS3	LCS	102.24	100.00	mg/L	102		90 - 110		
pH	B138188-BS2	LCS	7.0100	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B138480</b>										
Chloride	B138480-BS1	LCS	49.054	50.000	mg/L	98.1		90 - 110		
Nitrate as N	B138480-BS1	LCS	4.9900	5.0000	mg/L	99.8		90 - 110		
Sulfate	B138480-BS1	LCS	97.641	100.00	mg/L	97.6		90 - 110		
<b>QC Batch ID: B138679</b>										
Total Recoverable Calcium	B138679-BS1	LCS	10.323	10.000	mg/L	103		85 - 115		
Total Recoverable Magnesium	B138679-BS1	LCS	9.6800	10.000	mg/L	96.8		85 - 115		
Total Recoverable Sodium	B138679-BS1	LCS	10.063	10.000	mg/L	101		85 - 115		
Total Recoverable Potassium	B138679-BS1	LCS	10.129	10.000	mg/L	101		85 - 115		
<b>QC Batch ID: B138741</b>										
Total Dissolved Solids @ 180 C	B138741-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
	B138741-BSD1	LCSD	595.00	586.00	mg/L	102	1.7	90 - 110	200	
<b>QC Batch ID: B138968</b>										
Nitrite as N	B138968-BS1	LCS	0.48639	0.50000	mg/L	97.3		90 - 110		
<b>QC Batch ID: B139416</b>										
Perchlorate	B139416-BS1	LCS	9.2946	10.000	ug/L	92.9		85 - 115		
<b>QC Batch ID: B139809</b>										
ortho-Phosphate as P	B139809-BS1	LCS	0.51920	0.50000	mg/L	104		90 - 110		

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 Project Number: 2Q22  
 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		
								Percent Recovery	RPD	Percent Recovery
<b>QC Batch ID: B138187</b>		Used client sample: N								
Bicarbonate	DUP	2209958-01	235.04	237.05		mg/L	0.9		10	
Carbonate	DUP	2209958-01	ND	ND		mg/L			10	
Total Alkalinity as CaCO3	DUP	2209958-01	192.77	194.42		mg/L	0.9		10	
pH	DUP	2209958-01	8.1200	8.1400		pH Units	0.2		20	
<b>QC Batch ID: B138188</b>		Used client sample: Y - Description: MW-11-3, 04/28/2022 12:35								
Bicarbonate	DUP	2209976-06	126.67	126.49		mg/L	0.1		10	
Carbonate	DUP	2209976-06	5.2223	5.7619		mg/L	9.8		10	
Total Alkalinity as CaCO3	DUP	2209976-06	112.60	113.35		mg/L	0.7		10	
pH	DUP	2209976-06	8.6400	8.6600		pH Units	0.2		20	
<b>QC Batch ID: B138480</b>		Used client sample: Y - Description: MW-4-2, 04/28/2022 07:15								
Chloride	DUP	2209976-02	77.819	75.999		mg/L	2.4		10	
	MS	2209976-02	77.819	131.12	50.505	mg/L		106		80 - 120
	MSD	2209976-02	77.819	132.89	50.505	mg/L	1.3	109	10	80 - 120
Nitrate as N	DUP	2209976-02	4.8370	4.8170		mg/L	0.4		10	
	MS	2209976-02	4.8370	10.254	5.0505	mg/L		107		80 - 120
	MSD	2209976-02	4.8370	10.301	5.0505	mg/L	0.5	108	10	80 - 120
Sulfate	DUP	2209976-02	90.498	88.380		mg/L	2.4		10	
	MS	2209976-02	90.498	205.03	101.01	mg/L		113		80 - 120
	MSD	2209976-02	90.498	205.35	101.01	mg/L	0.2	114	10	80 - 120
<b>QC Batch ID: B138679</b>		Used client sample: Y - Description: MW-4-2, 04/28/2022 07:15								
Total Recoverable Calcium	DUP	2209976-02	92.524	96.490		mg/L	4.2		20	
	MS	2209976-02	92.524	105.27	10.000	mg/L		127		75 - 125
	MSD	2209976-02	92.524	102.89	10.000	mg/L	2.3	104	20	75 - 125
Total Recoverable Magnesium	DUP	2209976-02	30.766	30.200		mg/L	1.9		20	
	MS	2209976-02	30.766	39.607	10.000	mg/L		88.4		75 - 125
	MSD	2209976-02	30.766	38.933	10.000	mg/L	1.7	81.7	20	75 - 125
Total Recoverable Sodium	DUP	2209976-02	28.591	29.951		mg/L	4.6		20	
	MS	2209976-02	28.591	39.600	10.000	mg/L		110		75 - 125
	MSD	2209976-02	28.591	38.844	10.000	mg/L	1.9	103	20	75 - 125
Total Recoverable Potassium	DUP	2209976-02	2.5317	2.6498		mg/L	4.6		20	
	MS	2209976-02	2.5317	12.773	10.000	mg/L		102		75 - 125
	MSD	2209976-02	2.5317	12.554	10.000	mg/L	1.7	100	20	75 - 125
<b>QC Batch ID: B138741</b>		Used client sample: Y - Description: MW-4-2, 04/28/2022 07:15								
Total Dissolved Solids @ 180 C	DUP	2209976-02	516.66	519.99		mg/L	0.6		10	
<b>QC Batch ID: B138968</b>		Used client sample: Y - Description: MW-4-2, 04/28/2022 07:15								

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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	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B138968</b>		Used client sample: Y - Description: MW-4-2, 04/28/2022 07:15									
Nitrite as N	DUP	2209976-02	0.038545	0.035831		mg/L	7.3		10		J
	MS	2209976-02	0.038545	0.56128	0.52632	mg/L		99.3		90 - 110	
	MSD	2209976-02	0.038545	0.56351	0.52632	mg/L	0.4	99.7	10	90 - 110	
<b>QC Batch ID: B139416</b>		Used client sample: Y - Description: MW-4-2, 04/28/2022 07:15									
Perchlorate	DUP	'209976-02RE'	45.934	44.408		ug/L	3.4		15		
	MS	'209976-02RE'	45.934	89.338	50.505	ug/L		85.9		80 - 120	
	MSD	'209976-02RE'	45.934	89.666	50.505	ug/L	0.4	86.6	15	80 - 120	
<b>QC Batch ID: B139809</b>		Used client sample: Y - Description: MW-11-1, 04/28/2022 14:25									
ortho-Phosphate as P	DUP	2209976-09	ND	ND		mg/L			10		
	MS	2209976-09	ND	0.56084	0.52632	mg/L		107		90 - 110	
	MSD	2209976-09	ND	0.54095	0.52632	mg/L	3.6	103	10	90 - 110	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138679</b>						
Total Recoverable Iron	B138679-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B138686</b>						
Hexavalent Chromium	B138686-BLK1	ND	mg/L	0.00020	0.000020	
<b>QC Batch ID: B138687</b>						
Total Recoverable Arsenic	B138687-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B138687-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B138687-BLK1	ND	ug/L	1.0	0.10	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138679</b>										
Total Recoverable Iron	B138679-BS1	LCS	976.08	1000.0	ug/L	97.6		85 - 115		
<b>QC Batch ID: B138686</b>										
Hexavalent Chromium	B138686-BS1	LCS	0.020167	0.020000	mg/L	101		90 - 110		
<b>QC Batch ID: B138687</b>										
Total Recoverable Arsenic	B138687-BS1	LCS	100.75	100.00	ug/L	101		85 - 115		
Total Recoverable Chromium	B138687-BS1	LCS	38.690	40.000	ug/L	96.7		85 - 115		
Total Recoverable Lead	B138687-BS1	LCS	102.16	100.00	ug/L	102		85 - 115		

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 16:54  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B138679</b>		Used client sample: Y - Description: MW-4-2, 04/28/2022 07:15									
Total Recoverable Iron	DUP	2209976-02	1598.2	1659.6		ug/L	3.8		20		
	MS	2209976-02	1598.2	2670.8	1000.0	ug/L		107		75 - 125	
	MSD	2209976-02	1598.2	2692.0	1000.0	ug/L	0.8	109	20	75 - 125	
<b>QC Batch ID: B138686</b>		Used client sample: Y - Description: MW-4-2, 04/28/2022 07:15									
Hexavalent Chromium	DUP	2209976-02	0.000089000	0.000079000		mg/L	11.9		10		J,A02
	MS	2209976-02	0.000089000	0.020530	0.020202	mg/L		101		90 - 110	
	MSD	2209976-02	0.000089000	0.020771	0.020202	mg/L	1.2	102	10	90 - 110	
<b>QC Batch ID: B138687</b>		Used client sample: Y - Description: EB-4-042822, 04/28/2022 14:40									
Total Recoverable Arsenic	DUP	2209976-10	ND	ND		ug/L			20		
	MS	2209976-10	ND	96.621	100.00	ug/L		96.6		70 - 130	
	MSD	2209976-10	ND	105.32	100.00	ug/L	8.6	105	20	70 - 130	
Total Recoverable Chromium	DUP	2209976-10	0.54900	ND		ug/L			20		
	MS	2209976-10	0.54900	36.945	40.000	ug/L		91.0		70 - 130	
	MSD	2209976-10	0.54900	40.090	40.000	ug/L	8.2	98.9	20	70 - 130	
Total Recoverable Lead	DUP	2209976-10	ND	0.11600		ug/L			20		J
	MS	2209976-10	ND	98.463	100.00	ug/L		98.5		70 - 130	
	MSD	2209976-10	ND	104.62	100.00	ug/L	6.1	105	20	70 - 130	

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# Certificate of Analysis

FINAL REPORT

Work Orders: 2E04024

Project: 2209976

Attn: BC Laboratories  
Client: Pace Analytical Services - Bakersfield  
4100 Atlas Court  
Bakersfield, CA 93308

Report Date: 5/11/2022

Received Date: 5/4/2022

Turnaround Time: Normal

Phones: (661) 327-4911

Fax: (661) 327-1918

P.O. #:

Billing Code:

Dear BC Laboratories,

Enclosed are the results of analyses for samples received 5/04/22 with the Chain-of-Custody document. The samples were received in good condition, at 1.9 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

## Sample Results

Sample: 2209976-03	Sampled: 04/28/22 8:45 by Client					
2E04024-01 (Water)						
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 1625B		Instr: GCMS09				
Batch ID: W2E0409	Preparation: EPA 3535/SPE	Prepared: 05/05/22 13:15				Analyst: mid
N-Nitrosodimethylamine	ND	2.0	ng/l	1	05/05/22	



# Certificate of Analysis

FINAL REPORT

## Quality Control Results

Nitrosamines by isotopic dilution GC/MS CI Mode

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Batch: W2E0409 - EPA 3535/SPE										
Blank (W2E0409-BLK1)				Prepared & Analyzed: 05/05/22						
N-Nitrosodimethylamine	ND	2.0	ng/l							
LCS (W2E0409-B51)				Prepared & Analyzed: 05/05/22						
N-Nitrosodimethylamine	1.66	2.0	ng/l	2.00		83	50-150			
LCS Dup (W2E0409-B5D1)				Prepared & Analyzed: 05/05/22						
N-Nitrosodimethylamine	2.17	2.0	ng/l	2.00		109	50-150	27	50	



# Certificate of Analysis

FINAL REPORT

## Notes and Definitions

Item	Definition
%REC	Percent Recovery
Dil	Dilution
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ)
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
RPD	Relative Percent Difference

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

All results are expressed on wet weight basis unless otherwise specified.

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

Reviewed by:



Rahul R. Nair  
Project Manager



DoD-ELAP ANAB #ADE-2882 • DoD-ISO ANAB # • ELAP-CA #1132 • EPA-UCMR #CA00211 • HW-DOH #4047 • ISO17025 ANAB #L2457.01 • LACSD #10143 • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

*This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.*



Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 05/25/2022 16:54  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A02	The difference between duplicate readings is less than the quantitation limit.
A03	The sample concentration was more than 4 times the spike level.
A10	Detection and quantitation limits were raised due to matrix interference.
S05	The sample holding time was exceeded.
V11	The Continuing Calibration Verification (CCV) recovery was not within established control limits.





Date of Report: 05/16/2022

David Conner

Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

Client Project: [none]  
BCL Project: JPL- GW Monitoring Wells-CLP  
BCL Work Order: 2210072  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 4/29/2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Brianna Schutte  
Client Services Rep

Stuart Buttram  
Operations Manager

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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# Chain of Custody Form



ANALYTICAL SERVICES 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.pacelabs.com

Report For: **Tidewater, Inc.** Project #: **JPL-GW Monitoring** Analysis Requested: **Low-level 1,2,3-TCP** Comments: **Result Request: "Surcharge" STD 5 Day\*\* 14 Day\*\* 9 Day\*\* 2 Day\*\* 1 Day\*\* Rush requests must be approved**

Client: **David Conner** Project Name: **2Q22** Project: **Low-level 1,2,3-TCP**

Street Address: **3761 Attucks Drive** BID# **NDMA 1625M**

City, State, Zip: **Powell, OH 43065** Sampler(s) Name: **Blaine Tech**

Phone: **626-298-8715** Fax: **614-792-2897**

Email: **david.conner@tideh2o.net**

Order #: **22-10072**

Sample #	Description	Date Sampled	Time Sampled	VOCs EPA 524.2	TRM: Cr, Pb, As, Ca, Mg, K	Na, Fe	Hexavalent Cr 6 - 218.6 (mg/L)	Cl, NO3, NO2, SO4, Perch.	CO3, HCO3, Alk., TDS, pH	Orthophosphate 365.1	1,4 Dioxane 8270SIM	NDMA 1625M	Low-level 1,2,3-TCP	Sample Matrix	Notes
-1	TB-5-042922	01/29/22	0700	X	X	X	X	X	X	X	X	X	X	Soil	
-2	MW-22-5	4/29/22	0845	X	X	X	X	X	X	X	X	X	X	Ground Water	
-3	MW-22-4	4/29/22	0920	X	X	X	X	X	X	X	X	X	X	Ground Water	
-4	MW-22-3	4/29/22	0948	X	X	X	X	X	X	X	X	X	X	Ground Water	
-5	MW-22-2	4/29/22	1030	X	X	X	X	X	X	X	X	X	X	Ground Water	
-6	MW-22-1	01/29/22	1115	X	X	X	X	X	X	X	X	X	X	Ground Water	
-7	MW-26-2	4/29/22	1320	X	X	X	X	X	X	X	X	X	X	Ground Water	Level IV
-8	EB-5-042922	4/29/22	1400	X	X	X	X	X	X	X	X	X	X	Sludge	

EDF Required Geotracker  Yes  No

Global ID

1. Requisitioned By: **Casey Bloomer** Date: **4/29/22** Time: **1435**

2. Requisitioned By: **Casey Bloomer** Date: **4-29-22** Time: **4:49**

3. Requisitioned By: **Casey Bloomer** Date: **4/29/22** Time: **1900**

1. Received By: **Casey Bloomer** Date: **4-29-22** Time: **1435**

2. Received By: **Casey Bloomer** Date: **4/29/22** Time: **1645**

3. Received By: **Casey Bloomer** Date: **4/29/22** Time: **1900**

CHICK BY: **Casey Bloomer** DISTRIBUTION: **Casey Bloomer** SUB-OUT: **Casey Bloomer**

DO OF BOD MBAS COT

Billing:  Same as above

Client: \_\_\_\_\_ Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

System # (Needed for CLP) \_\_\_\_\_ GISKey  Well Star

P.O. #: \_\_\_\_\_

Pace Analytical Bakersfield does not accept samples containing radioactive material above background levels. Samples containing radioactive material must be disclosed prior to receipt. Any samples suspected of containing radioactive material above background levels will not be accepted and will be returned to client.

REV 12/2021

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>1</u> Of <u>1</u>	
Submission #: <u>22-10072</u>					
SHIPPING INFORMATION			SHIPPING CONTAINER		FREE LIQUID
Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <input type="checkbox"/> Hand Delivery <input type="checkbox"/>			Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/>		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			Other <input type="checkbox"/> (Specify) _____		<u>W</u> / <u>S</u>
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: <u>Temp Blank maintain integrity</u>					
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>2741</u>		Date/Time <u>4/29/22</u>	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Temperature: (A) <u>0.5</u> °C / (C) <u>0.3</u> °C		Analyst Init <u>ZC1/1900</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		G	G	G	G	G	G	G		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>		H	H	H	H	H	H	H		
QT INORGANIC CHEMICAL METALS		H	I	I	I	I	I	I		
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		A-C	A-C	A-C	A-C	A-C	A-C	A-C		
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL-504 Amber Unpres		D-F	D-F	D-F	D-F	D-F	D-F	D-F		
QT EPA 518/508.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: ZC1 Date/Time: 4/29/22 1935 Rev 22 04/13/21  
 A = Actual / C = Corrected [E:\SWP\Doc\Word\PerfectLAB\_DOCS\FORMS\SISAWRCrev 22]



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/16/2022 18:48  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information					
2210072-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/29/2022 19:00		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	04/29/2022 07:00		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	TB-5-042922	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Trip Blank		
			Delivery Work Order:			
			Global ID:	0000000000		
			Location ID (FieldPoint):	TB-5-042922		
			Matrix:	WG		
			Sample QC Type (SACode):	CS		
		Cooler ID:				
2210072-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/29/2022 19:00		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	04/29/2022 08:45		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-22-5	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
			Delivery Work Order:			
			Global ID:	0000000000		
			Location ID (FieldPoint):	MW-22-5		
			Matrix:	WG		
			Sample QC Type (SACode):	CS		
		Cooler ID:				
2210072-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/29/2022 19:00		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	04/29/2022 09:20		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-22-4	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
			Delivery Work Order:			
			Global ID:	0000000000		
			Location ID (FieldPoint):	MW-22-4		
			Matrix:	WG		
			Sample QC Type (SACode):	CS		
		Cooler ID:				

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/16/2022 18:48  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
2210072-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/29/2022 19:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/29/2022 09:48
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-22-3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-22-3
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2210072-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/29/2022 19:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/29/2022 10:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-22-2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-22-2
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2210072-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 04/29/2022 19:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 04/29/2022 11:15
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-22-1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-22-1
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	

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**Reported:** 05/16/2022 18:48  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2210072-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/29/2022 19:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	04/29/2022 13:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MW-26-2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater
			Delivery Work Order:	
			Global ID:	0000000000
			Location ID (FieldPoint):	MW-26-2
			Matrix:	WG
			Sample QC Type (SACode):	CS
		Cooler ID:		
2210072-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	04/29/2022 19:00
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	04/29/2022 14:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	EB-5-042922	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater
			Delivery Work Order:	
			Global ID:	0000000000
			Location ID (FieldPoint):	EB-5-042922
			Matrix:	WG
			Sample QC Type (SACode):	CS
		Cooler ID:		

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210072-01      **Client Sample Name:** NASA/JPL, TB-5-042922, 4/29/2022 7:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210072-01		Client Sample Name: NASA/JPL, TB-5-042922, 4/29/2022 7:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210072-01      **Client Sample Name:** NASA/JPL, TB-5-042922, 4/29/2022 7:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 15:24	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210072-01	Client Sample Name: NASA/JPL, TB-5-042922, 4/29/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	15:24	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210072-02	Client Sample Name:	NASA/JPL, MW-22-5, 4/29/2022 8:45:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210072-02	Client Sample Name:	NASA/JPL, MW-22-5, 4/29/2022 8:45:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210072-02	<b>Client Sample Name:</b> NASA/JPL, MW-22-5, 4/29/2022 8:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 15:49	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210072-02	Client Sample Name: NASA/JPL, MW-22-5, 4/29/2022 8:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	15:49	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number





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**Reported:** 05/16/2022 18:48  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210072-02	<b>Client Sample Name:</b> NASA/JPL, MW-22-5, 4/29/2022 8:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22	15:54	ADC	MS-V16	1	B138643	EPA 524.2

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210072-02	Client Sample Name:	NASA/JPL, MW-22-5, 4/29/2022 8:45:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	5.8	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	1.4	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	68	mg/L	0.50	0.051	EPA-200.7	0.061		1
Total Recoverable Potassium	0.83	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate	83	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	17	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	97	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	7.0	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	36	mg/L	1.0	0.14	EPA-300.0	0.23		3
pH	8.98	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	230	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/04/22 09:50	05/10/22 13:47		JRG	PE-OP4	1	B138820	EPA 200.2
2	SM-2320B	05/05/22 07:00	05/05/22 18:08		RML	MET-1	1	B138195	No Prep
3	EPA-300.0	04/29/22 23:00	04/30/22 02:40		SAV	IC8	1	B138531	No Prep
4	EPA-150.1	05/05/22 07:00	05/05/22 18:08		RML	MET-1	1	B138195	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	2	B138974	No Prep
6	EPA-353.2	04/30/22 01:40	04/30/22 01:40		KB1	KONE-1	1	B138970	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 18:14		KB1	IC6	1	B139416	No Prep

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210072-02	Client Sample Name: NASA/JPL, MW-22-5, 4/29/2022 8:45:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00019	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	44	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	0.20	ug/L	1.0	0.10	EPA-200.8	ND	J	2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/03/22	18:28	MKB	IC-4	1	B138684	No Prep
2	EPA-200.8	05/03/22 10:50	05/03/22	19:06	AK1	PE-EL4	1	B138685	EPA 200.2
3	EPA-200.7	05/04/22 09:50	05/10/22	13:47	JRG	PE-OP4	1	B138820	EPA 200.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210072-03		Client Sample Name: NASA/JPL, MW-22-4, 4/29/2022 9:20:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210072-03	Client Sample Name:	NASA/JPL, MW-22-4, 4/29/2022 9:20:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210072-03      **Client Sample Name:** NASA/JPL, MW-22-4, 4/29/2022 9:20:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 16:14	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210072-03	Client Sample Name: NASA/JPL, MW-22-4, 4/29/2022 9:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	16:14	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/16/2022 18:48  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210072-03	<b>Client Sample Name:</b> NASA/JPL, MW-22-4, 4/29/2022 9:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 16:20	ADC	MS-V16	1	B138643	EPA 524.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210072-03	Client Sample Name:	NASA/JPL, MW-22-4, 4/29/2022 9:20:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	36	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	11	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	29	mg/L	0.50	0.051	EPA-200.7	0.061		1
Total Recoverable Potassium	1.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	180	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	150	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	15	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	4.9	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	10	mg/L	1.0	0.14	EPA-300.0	0.23		3
pH	8.30	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	250	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	1.1	ug/L	2.0	0.81	EPA-314.0	ND	J	7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/04/22 09:50	05/10/22 13:50		JRG	PE-OP4	1	B138820	EPA 200.2
2	SM-2320B	05/05/22 07:00	05/05/22 18:17		RML	MET-1	1	B138195	No Prep
3	EPA-300.0	04/29/22 23:00	04/30/22 03:01		SAV	IC8	1	B138531	No Prep
4	EPA-150.1	05/05/22 07:00	05/05/22 18:17		RML	MET-1	1	B138195	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	2	B138974	No Prep
6	EPA-353.2	04/30/22 01:40	04/30/22 01:40		KB1	KONE-1	1	B138970	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 18:29		KB1	IC6	1	B139416	No Prep

DCN = Data Continuation Number

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210072-03	Client Sample Name: NASA/JPL, MW-22-4, 4/29/2022 9:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0029	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	0.85	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	2.3	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/03/22 18:37		JAT	IC-4	1	B138684	No Prep
2	EPA-200.8	05/03/22 10:50	05/03/22 19:08		AK1	PE-EL4	1	B138685	EPA 200.2
3	EPA-200.7	05/04/22 09:50	05/10/22 13:50		JRG	PE-OP4	1	B138820	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210072-04	Client Sample Name:	NASA/JPL, MW-22-3, 4/29/2022 9:48:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>0.17</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210072-04		Client Sample Name: NASA/JPL, MW-22-3, 4/29/2022 9:48:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210072-04      **Client Sample Name:** NASA/JPL, MW-22-3, 4/29/2022 9:48:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 16:38	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210072-04	Client Sample Name: NASA/JPL, MW-22-3, 4/29/2022 9:48:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	16:38	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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 Project Number: [none]  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210072-04	Client Sample Name: NASA/JPL, MW-22-3, 4/29/2022 9:48:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 17:12		ADC	MS-V16	1	B138643	EPA 524.2

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210072-04	Client Sample Name:	NASA/JPL, MW-22-3, 4/29/2022 9:48:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	49	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	16	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	36	mg/L	0.50	0.051	EPA-200.7	0.061		1
Total Recoverable Potassium	2.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	160	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	4.7	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	140	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	42	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	8.7	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	39	mg/L	1.0	0.14	EPA-300.0	0.23		3
pH	8.35	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	340	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	2.9	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/04/22 09:50	05/10/22 13:52		JRG	PE-OP4	1	B138820	EPA 200.2
2	SM-2320B	05/05/22 07:00	05/05/22 18:26		RML	MET-1	1	B138195	No Prep
3	EPA-300.0	04/29/22 23:00	04/30/22 03:21		SAV	IC8	1	B138531	No Prep
4	EPA-150.1	05/05/22 07:00	05/05/22 18:26		RML	MET-1	1	B138195	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	2	B138974	No Prep
6	EPA-353.2	04/30/22 01:40	04/30/22 01:41		KB1	KONE-1	1	B138970	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 18:45		KB1	IC6	1	B139416	No Prep

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210072-04	Client Sample Name: NASA/JPL, MW-22-3, 4/29/2022 9:48:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0022	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	0.94	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	2.1	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/03/22	19:58	JAT	IC-4	1	B138684	No Prep
2	EPA-200.8	05/03/22 10:50	05/03/22	19:09	AK1	PE-EL4	1	B138685	EPA 200.2
3	EPA-200.7	05/04/22 09:50	05/10/22	13:52	JRG	PE-OP4	1	B138820	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210072-05      **Client Sample Name:** NASA/JPL, MW-22-2, 4/29/2022 10:30:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210072-05      **Client Sample Name:** NASA/JPL, MW-22-2, 4/29/2022 10:30:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210072-05      **Client Sample Name:** NASA/JPL, MW-22-2, 4/29/2022 10:30:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	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)	90.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 17:03	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210072-05	Client Sample Name: NASA/JPL, MW-22-2, 4/29/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	17:03	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/16/2022 18:48  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210072-05	<b>Client Sample Name:</b> NASA/JPL, MW-22-2, 4/29/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 17:38	ADC	MS-V16	1	B138643	EPA 524.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210072-05	Client Sample Name:	NASA/JPL, MW-22-2, 4/29/2022 10:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	58	mg/L	0.10	0.014	EPA-200.7	ND		1	
Total Recoverable Magnesium	21	mg/L	0.050	0.019	EPA-200.7	ND		1	
Total Recoverable Sodium	31	mg/L	0.50	0.051	EPA-200.7	0.061		1	
Total Recoverable Potassium	2.2	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	210	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	2.5	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	180	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	39	mg/L	0.50	0.13	EPA-300.0	ND		3	
Nitrate as N	7.3	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	36	mg/L	1.0	0.14	EPA-300.0	0.23		3	
pH	8.31	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	380	mg/L	20	10	EPA-160.1	ND	A10	5	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6	
Perchlorate	2.3	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/04/22 09:50	05/10/22 13:54		JRG	PE-OP4	1	B138820	EPA 200.2
2	SM-2320B	05/05/22 07:00	05/05/22 18:51		RML	MET-1	1	B138196	No Prep
3	EPA-300.0	04/29/22 23:00	04/30/22 03:42		SAV	IC8	1	B138531	No Prep
4	EPA-150.1	05/05/22 07:00	05/05/22 18:51		RML	MET-1	1	B138196	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	2	B138974	No Prep
6	EPA-353.2	04/30/22 01:40	04/30/22 01:41		KB1	KONE-1	1	B138970	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 19:00		KB1	IC6	1	B139416	No Prep

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 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210072-05	Client Sample Name: NASA/JPL, MW-22-2, 4/29/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0020	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	1.8	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	32	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/03/22 20:07	JAT	IC-4	1	B138684	No Prep
2	EPA-200.8	05/04/22 10:25	05/05/22 08:34	KHS	PE-EL2	1	B138823	EPA 200.2
3	EPA-200.7	05/04/22 09:50	05/10/22 13:54	JRG	PE-OP4	1	B138820	EPA 200.2

DCN = Data Continuation Number





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 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210072-06	Client Sample Name:	NASA/JPL, MW-22-1, 4/29/2022 11:15:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>0.88</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210072-06	Client Sample Name:	NASA/JPL, MW-22-1, 4/29/2022 11:15:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.59</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
<b>Trichloroethene</b>	<b>1.9</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210072-06	<b>Client Sample Name:</b> NASA/JPL, MW-22-1, 4/29/2022 11:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 17:27	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210072-06	Client Sample Name: NASA/JPL, MW-22-1, 4/29/2022 11:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	17:27	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/16/2022 18:48  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210072-06	<b>Client Sample Name:</b> NASA/JPL, MW-22-1, 4/29/2022 11:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 19:23		ADC	MS-V16	1	B138643	EPA 524.2

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 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	Client Sample Name: NASA/JPL, MW-22-1, 4/29/2022 11:15:00AM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	150	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	49	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	36	mg/L	0.50	0.051	EPA-200.7	0.061		1
Total Recoverable Potassium	3.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	350	mg/L	10	10	SM-2320B	ND	A10	2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B	ND	A10	2
Total Alkalinity as CaCO <sub>3</sub>	290	mg/L	8.2	8.2	SM-2320B	ND	A10	2
Chloride	120	mg/L	1.0	0.26	EPA-300.0	ND	A10	3
Nitrate as N	9.6	mg/L	0.20	0.048	EPA-300.0	ND	A10	3
Sulfate	170	mg/L	2.0	0.28	EPA-300.0	0.47	A10	3
pH	8.20	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	820	mg/L	50	25	EPA-160.1	ND	A10	5
Nitrite as N	0.19	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	60	ug/L	10	4.0	EPA-314.0	ND	A10	7

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-200.7	05/04/22 09:50	05/10/22 13:56	JRG	PE-OP4	1	B138820	EPA 200.2
2	SM-2320B	05/05/22 07:00	05/05/22 19:07	RML	MET-1	2	B138196	No Prep
3	EPA-300.0	04/29/22 23:00	04/30/22 05:04	SAV	IC8	2	B138531	No Prep
4	EPA-150.1	05/05/22 07:00	05/05/22 19:07	RML	MET-1	1	B138196	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30	CAD	MANUAL	5	B138974	No Prep
6	EPA-353.2	04/30/22 01:40	04/30/22 01:44	KB1	KONE-1	1	B138970	No Prep
7	EPA-314.0	05/09/22 23:50	05/11/22 01:38	MKB	IC6	5	B139416	No Prep

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 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210072-06	Client Sample Name: NASA/JPL, MW-22-1, 4/29/2022 11:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00016	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	0.75	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	0.71	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	49	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/03/22	20:17	JAT	IC-4	1	B138684	No Prep
2	EPA-200.8	05/04/22 10:25	05/05/22	08:35	KHS	PE-EL2	1	B138823	EPA 200.2
3	EPA-200.7	05/04/22 09:50	05/10/22	13:56	JRG	PE-OP4	1	B138820	EPA 200.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210072-07      **Client Sample Name:** NASA/JPL, MW-26-2, 4/29/2022 1:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>2.3</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210072-07      **Client Sample Name:** NASA/JPL, MW-26-2, 4/29/2022 1:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>4.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		<b>1</b>
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.54</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210072-07      **Client Sample Name:** NASA/JPL, MW-26-2, 4/29/2022 1:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND	V11	1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND		1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22 17:52	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210072-07	Client Sample Name: NASA/JPL, MW-26-2, 4/29/2022 1:20:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/02/22	17:52	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/16/2022 18:48  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210072-07	<b>Client Sample Name:</b> NASA/JPL, MW-26-2, 4/29/2022 1:20:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 19:49	ADC	MS-V16	1	B138643	EPA 524.2

DCN = Data Continuation Number

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 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210072-07	Client Sample Name:	NASA/JPL, MW-26-2, 4/29/2022 1:20:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	82	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	31	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	37	mg/L	0.50	0.051	EPA-200.7	0.061		1
Total Recoverable Potassium	2.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	220	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	4.9	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	68	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	7.1	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	79	mg/L	1.0	0.14	EPA-300.0	0.23		3
pH	8.34	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	460	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	0.025	mg/L	0.050	0.010	EPA-353.2	ND	J	6
Perchlorate	2.4	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/04/22 09:50	05/10/22 13:58		JRG	PE-OP4	1	B138820	EPA 200.2
2	SM-2320B	05/05/22 07:00	05/05/22 19:15		RML	MET-1	1	B138196	No Prep
3	EPA-300.0	04/29/22 23:00	04/30/22 01:18		SAV	IC8	1	B138531	No Prep
4	EPA-150.1	05/05/22 07:00	05/05/22 19:15		RML	MET-1	1	B138196	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	3.333	B138974	No Prep
6	EPA-353.2	04/30/22 01:40	04/30/22 01:40		KB1	KONE-1	1	B138970	No Prep
7	EPA-314.0	05/09/22 23:50	05/11/22 01:53		MKB	IC6	1	B139416	No Prep

DCN = Data Continuation Number

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 3761 Attucks Drive  
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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210072-07	Client Sample Name: NASA/JPL, MW-26-2, 4/29/2022 1:20:00PM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00073	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	1.2	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	98	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/03/22 20:27		JAT	IC-4	1	B138684	No Prep
2	EPA-200.8	05/04/22 10:25	05/05/22 08:11		KHS	PE-EL2	1	B138823	EPA 200.2
3	EPA-200.7	05/04/22 09:50	05/10/22 13:58		JRG	PE-OP4	1	B138820	EPA 200.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210072-08	Client Sample Name:	NASA/JPL, EB-5-042922, 4/29/2022 2:00:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210072-08	Client Sample Name:	NASA/JPL, EB-5-042922, 4/29/2022 2:00:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210072-08      **Client Sample Name:** NASA/JPL, EB-5-042922, 4/29/2022 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.1	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/03/22 00:23	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210072-08	Client Sample Name: NASA/JPL, EB-5-042922, 4/29/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/02/22 07:25	05/03/22	00:23	MGC	MS-V5	1	B138523	EPA 524.2

DCN = Data Continuation Number



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 3761 Attucks Drive  
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**Reported:** 05/16/2022 18:48  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210072-08	<b>Client Sample Name:</b> NASA/JPL, EB-5-042922, 4/29/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/03/22 06:53	05/03/22 20:15	ADC	MS-V16	1	B138643	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210072-08	Client Sample Name:	NASA/JPL, EB-5-042922, 4/29/2022 2:00:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	0.062	mg/L	0.10	0.014	EPA-200.7	ND	J	1
Total Recoverable Magnesium	0.021	mg/L	0.050	0.019	EPA-200.7	ND	J	1
Total Recoverable Sodium	0.20	mg/L	0.50	0.051	EPA-200.7	0.061	J	1
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	ND	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	ND	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	0.23	mg/L	1.0	0.14	EPA-300.0	0.23	J	3
pH	6.34	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	ND	mg/L	6.7	3.3	EPA-160.1	ND		5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/04/22 09:50	05/10/22 13:26		JRG	PE-OP4	1	B138820	EPA 200.2
2	SM-2320B	05/05/22 07:00	05/05/22 19:24		RML	MET-1	1	B138196	No Prep
3	EPA-300.0	04/29/22 23:00	04/30/22 04:44		SAV	IC8	1	B138531	No Prep
4	EPA-150.1	05/05/22 07:00	05/05/22 19:24		RML	MET-1	1	B138196	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	0.667	B138974	No Prep
6	EPA-353.2	04/30/22 01:40	04/30/22 01:44		KB1	KONE-1	1	B138970	No Prep
7	EPA-314.0	05/09/22 23:50	05/10/22 20:17		KB1	IC6	1	B139416	No Prep

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210072-08	Client Sample Name: NASA/JPL, EB-5-042922, 4/29/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000040	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/03/22 08:10	05/03/22 20:36		JAT	IC-4	1	B138684	No Prep
2	EPA-200.8	05/04/22 10:25	05/05/22 08:37		KHS	PE-EL2	1	B138823	EPA 200.2
3	EPA-200.7	05/04/22 09:50	05/10/22 13:26		JRG	PE-OP4	1	B138820	EPA 200.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B138523</b>						
Benzene	B138523-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B138523-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B138523-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B138523-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B138523-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B138523-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B138523-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B138523-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B138523-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B138523-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B138523-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B138523-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B138523-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B138523-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B138523-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B138523-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B138523-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B138523-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B138523-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B138523-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B138523-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B138523-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B138523-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B138523-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B138523-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B138523-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B138523-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B138523-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B138523-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B138523-BLK1	ND	ug/L	0.50	0.14	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B138523</b>						
trans-1,3-Dichloropropene	B138523-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B138523-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B138523-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B138523-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B138523-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B138523-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B138523-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B138523-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B138523-BLK1	ND	ug/L	0.50	0.12	
Styrene	B138523-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B138523-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B138523-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B138523-BLK1	ND	ug/L	0.50	0.23	
Toluene	B138523-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B138523-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B138523-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B138523-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B138523-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B138523-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B138523-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B138523-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B138523-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B138523-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B138523-BLK1	ND	ug/L	0.50	0.18	
Acetone	B138523-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B138523-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B138523-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B138523-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B138523-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B138523-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B138523-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B138523-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B138523-BLK1	ND	ug/L	4.0	1.3	

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B138523</b>						
Ethyl t-butyl ether	B138523-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B138523-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B138523-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B138523-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B138523-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B138523-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B138523-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B138523-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B138523-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B138523-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B138523-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B138523-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B138523-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B138523-BLK1</b>	<b>97.2</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B138523-BLK1</b>	<b>99.6</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B138523-BLK1</b>	<b>93.5</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B138523</b>										
Benzene	B138523-BS1	LCS	24.250	25.000	ug/L	97.0		70 - 130		
Bromodichloromethane	B138523-BS1	LCS	24.720	25.000	ug/L	98.9		70 - 130		
Chlorobenzene	B138523-BS1	LCS	24.200	25.000	ug/L	96.8		70 - 130		
Chloroethane	B138523-BS1	LCS	26.630	25.000	ug/L	107		70 - 130		
1,4-Dichlorobenzene	B138523-BS1	LCS	24.640	25.000	ug/L	98.6		70 - 130		
1,1-Dichloroethane	B138523-BS1	LCS	25.870	25.000	ug/L	103		70 - 130		
1,1-Dichloroethene	B138523-BS1	LCS	26.030	25.000	ug/L	104		70 - 130		
Toluene	B138523-BS1	LCS	23.580	25.000	ug/L	94.3		70 - 130		
Trichloroethene	B138523-BS1	LCS	25.140	25.000	ug/L	101		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B138523-BS1	LCS	10.250	10.000	ug/L	102		75 - 125		
Toluene-d8 (Surrogate)	B138523-BS1	LCS	9.9600	10.000	ug/L	99.6		80 - 120		
4-Bromofluorobenzene (Surrogate)	B138523-BS1	LCS	10.050	10.000	ug/L	100		80 - 120		

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Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138523</b>		Used client sample: N									
Benzene	MS	2209865-04	ND	24.870	25.000	ug/L		99.5		70 - 130	
	MSD	2209865-04	ND	24.440	25.000	ug/L	1.7	97.8	20	70 - 130	
Bromodichloromethane	MS	2209865-04	ND	25.180	25.000	ug/L		101		70 - 130	
	MSD	2209865-04	ND	25.410	25.000	ug/L	0.9	102	20	70 - 130	
Chlorobenzene	MS	2209865-04	ND	23.940	25.000	ug/L		95.8		70 - 130	
	MSD	2209865-04	ND	24.230	25.000	ug/L	1.2	96.9	20	70 - 130	
Chloroethane	MS	2209865-04	ND	26.950	25.000	ug/L		108		70 - 130	
	MSD	2209865-04	ND	26.530	25.000	ug/L	1.6	106	20	70 - 130	
1,4-Dichlorobenzene	MS	2209865-04	ND	24.180	25.000	ug/L		96.7		70 - 130	
	MSD	2209865-04	ND	24.530	25.000	ug/L	1.4	98.1	20	70 - 130	
1,1-Dichloroethane	MS	2209865-04	0.24000	26.920	25.000	ug/L		107		70 - 130	
	MSD	2209865-04	0.24000	26.460	25.000	ug/L	1.7	105	20	70 - 130	
1,1-Dichloroethene	MS	2209865-04	ND	26.550	25.000	ug/L		106		70 - 130	
	MSD	2209865-04	ND	26.300	25.000	ug/L	0.9	105	20	70 - 130	
Toluene	MS	2209865-04	ND	24.030	25.000	ug/L		96.1		70 - 130	
	MSD	2209865-04	ND	23.760	25.000	ug/L	1.1	95.0	20	70 - 130	
Trichloroethene	MS	2209865-04	0.84000	24.920	25.000	ug/L		96.3		70 - 130	
	MSD	2209865-04	0.84000	25.520	25.000	ug/L	2.4	98.7	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2209865-04	ND	10.260	10.000	ug/L		103		75 - 125	
	MSD	2209865-04	ND	10.180	10.000	ug/L	0.8	102		75 - 125	
Toluene-d8 (Surrogate)	MS	2209865-04	ND	9.9800	10.000	ug/L		99.8		80 - 120	
	MSD	2209865-04	ND	10.020	10.000	ug/L	0.4	100		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2209865-04	ND	9.7000	10.000	ug/L		97.0		80 - 120	
	MSD	2209865-04	ND	9.9100	10.000	ug/L	2.1	99.1		80 - 120	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B138523</b>						
Nitrobenzene	B138523-BLK1	0	ug/L			
Methyl acrylate	B138523-BLK1	0	ug/L			
Chloroacetonitrile	B138523-BLK1	0	ug/L			
2-Nitropropane	B138523-BLK1	0	ug/L			
1-Chlorobutane	B138523-BLK1	0	ug/L			
1,1-Dichloropropanone	B138523-BLK1	0	ug/L			

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## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B138643</b>						
1,2,3-Trichloropropane	B138643-BLK1	ND	ug/L	0.0050	0.0010	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### 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: B138643</b>										
1,2,3-Trichloropropane	B138643-BS1	LCS	0.042780	0.050000	ug/L	85.6		80 - 120		

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 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138643</b>		Used client sample: N									
1,2,3-Trichloropropane	MS	2209865-04	ND	0.044240	0.050000	ug/L		88.5		70 - 130	
	MSD	2209865-04	ND	0.045610	0.050000	ug/L	3.0	91.2	30	70 - 130	

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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: B138195</b>						
Bicarbonate	B138195-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138195-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138195-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138196</b>						
Bicarbonate	B138196-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138196-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138196-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138531</b>						
Chloride	B138531-BLK1	ND	mg/L	0.50	0.13	
Nitrate as N	B138531-BLK1	ND	mg/L	0.10	0.024	
<b>Sulfate</b>	<b>B138531-BLK1</b>	<b>0.23300</b>	<b>mg/L</b>	<b>1.0</b>	<b>0.14</b>	<b>J</b>
<b>QC Batch ID: B138820</b>						
Total Recoverable Calcium	B138820-BLK1	ND	mg/L	0.10	0.014	
Total Recoverable Magnesium	B138820-BLK1	ND	mg/L	0.050	0.019	
<b>Total Recoverable Sodium</b>	<b>B138820-BLK1</b>	<b>0.060518</b>	<b>mg/L</b>	<b>0.50</b>	<b>0.051</b>	<b>J</b>
Total Recoverable Potassium	B138820-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B138970</b>						
Nitrite as N	B138970-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B138974</b>						
Total Dissolved Solids @ 180 C	B138974-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B139416</b>						
Perchlorate	B139416-BLK1	ND	ug/L	2.0	0.81	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B138195</b>										
Total Alkalinity as CaCO3	B138195-BS3	LCS	102.84	100.00	mg/L	103		90 - 110		
pH	B138195-BS2	LCS	7.0000	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B138196</b>										
Total Alkalinity as CaCO3	B138196-BS3	LCS	102.99	100.00	mg/L	103		90 - 110		
pH	B138196-BS2	LCS	7.0100	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B138531</b>										
Chloride	B138531-BS1	LCS	52.043	50.000	mg/L	104		90 - 110		
Nitrate as N	B138531-BS1	LCS	5.0630	5.0000	mg/L	101		90 - 110		
Sulfate	B138531-BS1	LCS	101.50	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B138820</b>										
Total Recoverable Calcium	B138820-BS1	LCS	10.236	10.000	mg/L	102		85 - 115		
Total Recoverable Magnesium	B138820-BS1	LCS	10.358	10.000	mg/L	104		85 - 115		
Total Recoverable Sodium	B138820-BS1	LCS	9.9953	10.000	mg/L	100		85 - 115		
Total Recoverable Potassium	B138820-BS1	LCS	10.208	10.000	mg/L	102		85 - 115		
<b>QC Batch ID: B138970</b>										
Nitrite as N	B138970-BS1	LCS	0.49194	0.50000	mg/L	98.4		90 - 110		
<b>QC Batch ID: B138974</b>										
Total Dissolved Solids @ 180 C	B138974-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
	B138974-BSD1	LCSD	590.00	586.00	mg/L	101	4.3	90 - 110	200	
<b>QC Batch ID: B139416</b>										
Perchlorate	B139416-BS1	LCS	9.2946	10.000	ug/L	92.9		85 - 115		

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B138195</b>		Used client sample: N								
Bicarbonate	DUP	2210066-03	1982.1	1998.9		mg/L	0.8		10	A10
Carbonate	DUP	2210066-03	ND	ND		mg/L			10	A10
Total Alkalinity as CaCO3	DUP	2210066-03	1625.6	1639.4		mg/L	0.8		10	A10
pH	DUP	2210066-03	5.1900	5.1900		pH Units	0		20	
<b>QC Batch ID: B138196</b>		Used client sample: Y - Description: MW-22-2, 04/29/2022 10:30								
Bicarbonate	DUP	2210072-05	213.07	208.86		mg/L	2.0		10	
<b>Carbonate</b>	DUP	<b>2210072-05</b>	<b>2.5182</b>	<b>4.6826</b>		<b>mg/L</b>	<b>60.1</b>		<b>10</b>	<b>A02</b>
Total Alkalinity as CaCO3	DUP	2210072-05	178.96	179.11		mg/L	0.1		10	
pH	DUP	2210072-05	8.3100	8.3400		pH Units	0.4		20	
<b>QC Batch ID: B138531</b>		Used client sample: Y - Description: MW-26-2, 04/29/2022 13:20								
Chloride	DUP	2210072-07	67.562	67.509		mg/L	0.1		10	
	MS	2210072-07	67.562	123.98	50.505	mg/L		112		80 - 120
	MSD	2210072-07	67.562	124.16	50.505	mg/L	0.2	112	10	80 - 120
Nitrate as N	DUP	2210072-07	7.1480	7.1060		mg/L	0.6		10	
	MS	2210072-07	7.1480	12.682	5.0505	mg/L		110		80 - 120
	MSD	2210072-07	7.1480	12.711	5.0505	mg/L	0.2	110	10	80 - 120
Sulfate	DUP	2210072-07	79.120	78.807		mg/L	0.4		10	
	MS	2210072-07	79.120	195.19	101.01	mg/L		115		80 - 120
	MSD	2210072-07	79.120	195.46	101.01	mg/L	0.1	115	10	80 - 120
<b>QC Batch ID: B138820</b>		Used client sample: Y - Description: EB-5-042922, 04/29/2022 14:00								
Total Recoverable Calcium	DUP	2210072-08	0.062139	0.078649		mg/L	23.5		20	J, A02
	MS	2210072-08	0.062139	10.089	10.000	mg/L		100		75 - 125
	MSD	2210072-08	0.062139	10.327	10.000	mg/L	2.3	103	20	75 - 125
Total Recoverable Magnesium	DUP	2210072-08	0.021115	0.025492		mg/L	18.8		20	J
	MS	2210072-08	0.021115	10.027	10.000	mg/L		100		75 - 125
	MSD	2210072-08	0.021115	10.174	10.000	mg/L	1.5	102	20	75 - 125
Total Recoverable Sodium	DUP	2210072-08	0.19783	0.21133		mg/L	6.6		20	J
	MS	2210072-08	0.19783	9.9817	10.000	mg/L		97.8		75 - 125
	MSD	2210072-08	0.19783	10.200	10.000	mg/L	2.2	100	20	75 - 125
Total Recoverable Potassium	DUP	2210072-08	ND	ND		mg/L			20	
	MS	2210072-08	ND	10.023	10.000	mg/L		100		75 - 125
	MSD	2210072-08	ND	10.256	10.000	mg/L	2.3	103	20	75 - 125
<b>QC Batch ID: B138970</b>		Used client sample: Y - Description: MW-26-2, 04/29/2022 13:20								
Nitrite as N	DUP	2210072-07	0.025363	0.025803		mg/L	1.7		10	J
	MS	2210072-07	0.025363	0.54267	0.52632	mg/L		98.3		90 - 110
	MSD	2210072-07	0.025363	0.54245	0.52632	mg/L	0.0	98.2	10	90 - 110

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B138974</b>		Used client sample: Y - Description: MW-22-1, 04/29/2022 11:15									
Total Dissolved Solids @ 180 C	DUP	2210072-06	820.00	820.00		mg/L	0		10		
<b>QC Batch ID: B139416</b>		Used client sample: N									
Perchlorate	DUP	'209976-02RE'	45.934	44.408		ug/L	3.4		15		
	MS	'209976-02RE'	45.934	89.338	50.505	ug/L		85.9		80 - 120	
	MSD	'209976-02RE'	45.934	89.666	50.505	ug/L	0.4	86.6	15	80 - 120	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B138684</b>						
Hexavalent Chromium	B138684-BLK1	ND	mg/L	0.00020	0.000020	
<b>QC Batch ID: B138685</b>						
Total Recoverable Arsenic	B138685-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B138685-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B138685-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B138820</b>						
Total Recoverable Iron	B138820-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B138823</b>						
Total Recoverable Arsenic	B138823-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B138823-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B138823-BLK1	ND	ug/L	1.0	0.10	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B138684</b>										
Hexavalent Chromium	B138684-BS1	LCS	0.020056	0.020000	mg/L	100		90 - 110		
<b>QC Batch ID: B138685</b>										
Total Recoverable Arsenic	B138685-BS1	LCS	92.347	100.00	ug/L	92.3		85 - 115		
Total Recoverable Chromium	B138685-BS1	LCS	40.191	40.000	ug/L	100		85 - 115		
Total Recoverable Lead	B138685-BS1	LCS	105.61	100.00	ug/L	106		85 - 115		
<b>QC Batch ID: B138820</b>										
Total Recoverable Iron	B138820-BS1	LCS	1055.5	1000.0	ug/L	106		85 - 115		
<b>QC Batch ID: B138823</b>										
Total Recoverable Arsenic	B138823-BS1	LCS	100.81	100.00	ug/L	101		85 - 115		
Total Recoverable Chromium	B138823-BS1	LCS	44.597	40.000	ug/L	111		85 - 115		
Total Recoverable Lead	B138823-BS1	LCS	106.78	100.00	ug/L	107		85 - 115		

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/16/2022 18:48  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138684</b>		Used client sample: N									
Hexavalent Chromium	DUP	2209942-01	0.0010610	0.0010640		mg/L	0.3		10		
	MS	2209942-01	0.0010610	0.020852	0.020202	mg/L		98.0		90 - 110	
	MSD	2209942-01	0.0010610	0.021089	0.020202	mg/L	1.1	99.1	10	90 - 110	
<b>QC Batch ID: B138685</b>		Used client sample: N									
Total Recoverable Arsenic	DUP	2209945-26	235.78	249.12		ug/L	5.5		20		
	MS	2209945-26	235.78	362.66	100.00	ug/L		127		70 - 130	
	MSD	2209945-26	235.78	334.12	100.00	ug/L	8.2	98.3	20	70 - 130	
Total Recoverable Chromium	DUP	2209945-26	ND	ND		ug/L			20		
	MS	2209945-26	ND	33.880	40.000	ug/L		84.7		70 - 130	J
	MSD	2209945-26	ND	29.980	40.000	ug/L	12.2	75.0	20	70 - 130	J
Total Recoverable Lead	DUP	2209945-26	ND	ND		ug/L			20		
	MS	2209945-26	ND	101.26	100.00	ug/L		101		70 - 130	
	MSD	2209945-26	ND	95.820	100.00	ug/L	5.5	95.8	20	70 - 130	
<b>QC Batch ID: B138820</b>		Used client sample: Y - Description: EB-5-042922, 04/29/2022 14:00									
Total Recoverable Iron	DUP	2210072-08	ND	ND		ug/L			20		
	MS	2210072-08	ND	1007.2	1000.0	ug/L		101		75 - 125	
	MSD	2210072-08	ND	1027.7	1000.0	ug/L	2.0	103	20	75 - 125	
<b>QC Batch ID: B138823</b>		Used client sample: Y - Description: MW-26-2, 04/29/2022 13:20									
Total Recoverable Arsenic	DUP	2210072-07	ND	1.6970		ug/L			20		J
	MS	2210072-07	ND	103.93	100.00	ug/L		104		70 - 130	
	MSD	2210072-07	ND	106.76	100.00	ug/L	2.7	107	20	70 - 130	
Total Recoverable Chromium	DUP	2210072-07	1.2200	0.96700		ug/L	23.1		20		J,A02
	MS	2210072-07	1.2200	39.194	40.000	ug/L		94.9		70 - 130	
	MSD	2210072-07	1.2200	39.373	40.000	ug/L	0.5	95.4	20	70 - 130	
Total Recoverable Lead	DUP	2210072-07	ND	ND		ug/L			20		
	MS	2210072-07	ND	98.081	100.00	ug/L		98.1		70 - 130	
	MSD	2210072-07	ND	99.133	100.00	ug/L	1.1	99.1	20	70 - 130	

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Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 05/16/2022 18:48  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A10 Detection and quantitation limits were raised due to matrix interference.
- S05 The sample holding time was exceeded.
- V11 The Continuing Calibration Verification (CCV) recovery was not within established control limits.

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Date of Report: 05/25/2022

David Conner

Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

Client Project: 2022  
BCL Project: JPL- GW Monitoring Wells-CLP  
BCL Work Order: 2210193  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 5/2/2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Molly Meyers  
Client Service Rep

Stuart Buttram  
Operations Manager

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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# Chain of Custody Form

ANALYTICAL SERVICES 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.pacelabs.com



Report To: **Tidewater, Inc.** Project #: **JPL-GW Monitoring** Page 1 of 1

Client: **David Conner** Project Name: **2Q22**

Attn: **David Conner** Street Address: **3761 Attucks Drive** BID#

City, State, Zip: **Powell, OH 43065** Sampler(s) Name: **Blaine Tech**

Phone: **626-298-5715** Fax: **614-792-2897** Email: **david.conner@tideh2o.net**

Work Order #: **22-10193**

Sample #	Description	Date Sampled	Time Sampled	Analysis Requested	Comments
-1	MW-3-S	5/12/22	0740	VOCS EPA 524.2, TRM: Cr, Pb, As, Ca, Mg, K, Na, Fe, Hexavalent Cr6 -218.6 (mg/L), Cl, NO3, NO2, SO4, Perch., CO3, HCO3, Alk., TDS, pH, Orthophosphate 365.1, 1,4 Dioxane 8270SIM, NDMA 1625M, Low-level 1,2,3-TCP	Result Request: <input checked="" type="checkbox"/> STD <input type="checkbox"/> 5 Day <input type="checkbox"/> 4 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 1 Day <input type="checkbox"/> Rush requests must be approved
-2	MW-3-4	5/12/22	0815		
-3	Dup-S-2Q22	5/12/22	0830		
-4	MW-3-3	5/12/22	0915		
-5	MW-3-2	5/12/22	1000		
-6	MW-3-1	05/12/22	1120		
-7	TB-6-050222	5/12/22	1400		
-8	MW-25-5	5/12/22	1335		
-9	MW-25-4	5/12/22	1400		
-10	MW-25-3	5/12/22	1435		
-11	EB-6-050222	5/12/22	1500		
-12	SB-2-050222	5/12/22	1510		

Sample Matrix:  Waste Water,  Ground Water,  Drinking Water,  Sludge,  Soil,  Other

Notes: Level four

SHORT HOLDING TIME:  NO,  YES

DC:  Cl,  BOD,  MBAS,  COT

MS/MSD

CHK BY: DISTRIBUTION

SUB OUT:

EDF Required Geotracker:  Yes  No

Global ID

1. Requisitioned By: **Stephanie** Date: **5/12/22** Time: **1530**

2. Requisitioned By: **Miguel** Date: **5/12/22** Time: **0658**

3. Requisitioned By: **Stephanie** Date: **5/12/22** Time: **1832**

System # (required for CUP):

GISKey  Well Star

Billing:  Same as above

Client: \_\_\_\_\_ Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Attn: \_\_\_\_\_ P.O. #: \_\_\_\_\_

Pace Analytical Bakersfield does not accept samples containing radioactive material above background levels. Samples containing radioactive material must be disclosed prior to receipt. Any samples suspected of containing radioactive material above background levels will not be accepted and will be returned to client.

REV 12/02/21

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BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>1</u> Of <u>3</u>	
Submission #: <u>22-10193</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> <u>W/S</u>
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____ <small>Intact? Yes <input type="checkbox"/> No <input type="checkbox"/></small>					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PC</u> Thermometer ID: <u>274</u> Temperature: (A) <u>0.9</u> °C / (C) <u>0.7</u> °C		Date/Time <u>5/2/22</u> '858 Analyst Init <u>PPE</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										M,N
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										D,R D,P
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK							A			
40ml VOA VIAL	A-C	A-C	A-C	A-C	A-C	A-C		A-C	A-C	A-F
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL <del>40ml</del> Amber Vial	D-F	D-F	D-F	D-F	D-F	D-F		D-F	D-F	G-L
QT EPA 518/608.38081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8915M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: PAS Date/Time: 6/2/22 0900 Rev 22 04/13/21

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 of 3

Submission #: 22-10193

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> <u>W / S</u>
--	--	--	---

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: 0.97 Container: PE Thermometer ID: 274 Date/Time: 5/12/22 '1858  
 Temperature: (A) 0.9 °C / (C) 0.7 °C Analyst Init: PPE

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		G								
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>		I								
QT INORGANIC CHEMICAL METALS		H								
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PcA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A-C	A-C								
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - <u>Amour Vap.</u>	D-F	D-F								
QT EPA 505/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
Box EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
Box / 16oz / 32oz AMBER										
3oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: WMB Date/Time: 5/12/22 0900  
 A = Actual / C = Corrected

Page 3 of 3

BC LABORATORIES INC. COOLER RECEIPT FORM

Submission #: 22-10193

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> <u>W/S</u>
---	--	--

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: 0.97 Container: PE Thermometer ID: 274 Date/Time: 5/3/22 1258  
 Temperature: (A) 0.8 °C / (C) 0.6 °C Analyst Init: PCC

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	PG	PG	PG	PG	PG	PG	PG	PG	PG	PG
4oz / 8oz / 16oz PE UNPRES										
2oz CR <sup>4</sup>	FI	FI	FI	FI	FI	FI	FI	FI	FI	FI
QT INORGANIC CHEMICAL METALS	EH	EH	EH	EH	EH	EH	EH	EH	EH	EH
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz	<u>NO 5/3/22</u>									
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 584										
QT EPA 508/608.3/8281A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCR VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: JPC Date/Time: 5/3/22 0900

Rev 22 04/13/21  
(S:\WPDoc\WordPerfect\LAB\_DOC\FORMS\BAHRECrev 20)



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/25/2022 17:27  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2022  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
<b>2210193-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-5 <b>Sampled By:</b> BTST		<b>Receive Date:</b> 05/02/2022 18:58 <b>Sampling Date:</b> 05/02/2022 07:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-5 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
<b>2210193-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-4 <b>Sampled By:</b> BTST		<b>Receive Date:</b> 05/02/2022 18:58 <b>Sampling Date:</b> 05/02/2022 08:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-4 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
<b>2210193-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> DUP-5-2Q22 <b>Sampled By:</b> BTST		<b>Receive Date:</b> 05/02/2022 18:58 <b>Sampling Date:</b> 05/02/2022 08:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): DUP-5-2Q22 Matrix: WG Sample QC Type (SACode): CS Cooler ID:

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 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>2210193-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-3 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/02/2022 18:58 <b>Sampling Date:</b> 05/02/2022 09:15 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-3 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>2210193-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-2 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/02/2022 18:58 <b>Sampling Date:</b> 05/02/2022 10:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-2 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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<b>2210193-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-3-1 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/02/2022 18:58 <b>Sampling Date:</b> 05/02/2022 11:20 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-3-1 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
<b>2210193-07</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-6-050222 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/02/2022 18:58 <b>Sampling Date:</b> 05/02/2022 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-6-050222 Matrix: WG Sample QC Type (SACode): CS Cooler ID:	
<b>2210193-08</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-5 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/02/2022 18:58 <b>Sampling Date:</b> 05/02/2022 13:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-5 Matrix: WG Sample QC Type (SACode): CS Cooler ID:	
<b>2210193-09</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-4 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/02/2022 18:58 <b>Sampling Date:</b> 05/02/2022 14:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-4 Matrix: WG Sample QC Type (SACode): CS Cooler ID:	

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 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/25/2022 17:27  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2022  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information					
2210193-10	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/02/2022 18:58		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/02/2022 14:35		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-25-3	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): MW-25-3					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						
2210193-11	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/02/2022 18:58		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/02/2022 15:00		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	EB-6-050222	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Blank Water		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): EB-6-050222					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						
2210193-12	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/02/2022 18:58		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/02/2022 15:10		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	SB-2-050222	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): SB-2-050222					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-01	Client Sample Name:	NASA/JPL, MW-3-5, 5/2/2022 7:40:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-01	Client Sample Name:	NASA/JPL, MW-3-5, 5/2/2022 7:40:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210193-01	Client Sample Name: NASA/JPL, MW-3-5, 5/2/2022 7:40:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22 02:16	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-01	Client Sample Name: NASA/JPL, MW-3-5, 5/2/2022 7:40:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22	02:16	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210193-01	Client Sample Name: NASA/JPL, MW-3-5, 5/2/2022 7:40:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 12:41	ADC	MS-V16	1	B139165	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210193-01	Client Sample Name:	NASA/JPL, MW-3-5, 5/2/2022 7:40:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	57	mg/L	0.10	0.014	EPA-200.7	ND		1
Total Recoverable Magnesium	18	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	21	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.6	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	20	mg/L	0.50	0.13	EPA-300.0	0.24		3
Nitrate as N	1.1	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	39	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	7.54	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	320	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	2.6	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/06/22 10:40	05/06/22 21:43		AK1	PE-OP4	1	B139041	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 08:37		RML	MET-1	1	B138198	No Prep
3	EPA-300.0	05/03/22 15:00	05/03/22 16:54		MKB	IC5	1	B138847	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 08:37		RML	MET-1	1	B138198	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	2	B138975	No Prep
6	EPA-353.2	05/03/22 22:18	05/03/22 22:18		MKB	KONE-1	1	B139135	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 04:21		MKB	IC6	1	B139436	No Prep

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210193-01	Client Sample Name: NASA/JPL, MW-3-5, 5/2/2022 7:40:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00034	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.9	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	5.3	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	2500	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 15:20		MKB	IC-4	1	B139225	No Prep
2	EPA-200.8	05/05/22 10:50	05/06/22 14:45		ARD	PE-EL2	1	B138925	EPA 200.2
3	EPA-200.7	05/06/22 10:40	05/06/22 21:43		AK1	PE-OP4	1	B139041	EPA 200.2

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-02	Client Sample Name:	NASA/JPL, MW-3-4, 5/2/2022 8:15:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210193-02      **Client Sample Name:** NASA/JPL, MW-3-4, 5/2/2022 8:15:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210193-02	Client Sample Name: NASA/JPL, MW-3-4, 5/2/2022 8:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22 02:40	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-02	Client Sample Name: NASA/JPL, MW-3-4, 5/2/2022 8:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22	02:40	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210193-02	Client Sample Name: NASA/JPL, MW-3-4, 5/2/2022 8:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 10:04		ADC	MS-V16	1	B139165	EPA 524.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210193-02	Client Sample Name:	NASA/JPL, MW-3-4, 5/2/2022 8:15:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	60	mg/L	0.10	0.014	EPA-200.7	0.037		1
Total Recoverable Magnesium	19	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	22	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	19	mg/L	0.50	0.13	EPA-300.0	0.24		3
Nitrate as N	1.2	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	38	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	7.64	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	320	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	2.7	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/06/22 10:40	05/10/22 14:27		JRG	PE-OP4	1	B139042	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 08:48		RML	MET-1	1	B138198	No Prep
3	EPA-300.0	05/03/22 15:00	05/03/22 18:06		MKB	IC5	1	B138847	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 08:48		RML	MET-1	1	B138198	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	2	B138975	No Prep
6	EPA-353.2	05/03/22 22:18	05/03/22 22:18		MKB	KONE-1	1	B139135	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 06:08		MKB	IC6	1	B139436	No Prep

DCN = Data Continuation Number

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210193-02	Client Sample Name: NASA/JPL, MW-3-4, 5/2/2022 8:15:00AM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00039	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	4.7	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	5.9	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	3500	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 15:30		MKB	IC-4	1	B139225	No Prep
2	EPA-200.8	05/05/22 10:35	05/06/22 13:57		ARD	PE-EL4	1	B138923	EPA 200.2
3	EPA-200.7	05/06/22 10:40	05/10/22 14:27		JRG	PE-OP4	1	B139042	EPA 200.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210193-03      **Client Sample Name:** NASA/JPL, DUP-5-2Q22, 5/2/2022 8:30:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-03	Client Sample Name:	NASA/JPL, DUP-5-2Q22, 5/2/2022 8:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210193-03	Client Sample Name: NASA/JPL, DUP-5-2Q22, 5/2/2022 8:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.7	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	95.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	88.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22 03:04	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-03	Client Sample Name: NASA/JPL, DUP-5-2Q22, 5/2/2022 8:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22	03:04	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/25/2022 17:27  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2022  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210193-03	<b>Client Sample Name:</b> NASA/JPL, DUP-5-2Q22, 5/2/2022 8:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 10:30	ADC	MS-V16	1	B139165	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210193-03	Client Sample Name:	NASA/JPL, DUP-5-2Q22, 5/2/2022 8:30:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	59	mg/L	0.10	0.014	EPA-200.7	0.037		1
Total Recoverable Magnesium	19	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	22	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	20	mg/L	0.50	0.13	EPA-300.0	0.24		3
Nitrate as N	1.1	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	38	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	7.58	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	320	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	2.6	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/06/22 10:40	05/10/22 14:35		JRG	PE-OP4	1	B139042	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 08:58		RML	MET-1	1	B138198	No Prep
3	EPA-300.0	05/03/22 15:00	05/03/22 18:24		MKB	IC5	1	B138847	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 08:58		RML	MET-1	1	B138198	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	2	B138975	No Prep
6	EPA-353.2	05/03/22 22:18	05/03/22 22:18		MKB	KONE-1	1	B139135	No Prep
7	EPA-314.0	05/11/22 19:00	05/11/22 22:59		KB1	IC6	1	B139436	No Prep

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210193-03	Client Sample Name: NASA/JPL, DUP-5-2Q22, 5/2/2022 8:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00033	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	2.9	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	4.7	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	2900	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 15:39	MKB	IC-4	1	B139225	No Prep
2	EPA-200.8	05/05/22 10:50	05/06/22 14:46	ARD	PE-EL2	1	B138925	EPA 200.2
3	EPA-200.7	05/06/22 10:40	05/10/22 14:35	JRG	PE-OP4	1	B139042	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-04	Client Sample Name:	NASA/JPL, MW-3-3, 5/2/2022 9:15:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-04	Client Sample Name:	NASA/JPL, MW-3-3, 5/2/2022 9:15:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210193-04	Client Sample Name: NASA/JPL, MW-3-3, 5/2/2022 9:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	89.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22 03:29	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
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 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-04	Client Sample Name: NASA/JPL, MW-3-3, 5/2/2022 9:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22	03:29	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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 Project Number: 2022  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210193-04	Client Sample Name: NASA/JPL, MW-3-3, 5/2/2022 9:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 10:56	ADC	MS-V16	1	B139165	EPA 524.2

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Reported: 05/25/2022 17:27  
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 Project Number: 2022  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210193-04	Client Sample Name:	NASA/JPL, MW-3-3, 5/2/2022 9:15:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	57	mg/L	0.10	0.014	EPA-200.7	0.037		1
Total Recoverable Magnesium	18	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	21	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	20	mg/L	0.50	0.13	EPA-300.0	0.24		3
Nitrate as N	1.1	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	39	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	7.59	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	320	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	2.4	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-200.7	05/06/22 10:40	05/10/22 14:38	JRG	PE-OP4	1	B139042	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 09:08	RML	MET-1	1	B138198	No Prep
3	EPA-300.0	05/03/22 15:00	05/03/22 18:42	MKB	IC5	1	B138847	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 09:08	RML	MET-1	1	B138198	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30	CAD	MANUAL	2	B138975	No Prep
6	EPA-353.2	05/03/22 22:18	05/03/22 22:18	MKB	KONE-1	1	B139135	No Prep
7	EPA-314.0	05/11/22 19:00	05/11/22 23:14	MKB	IC6	1	B139436	No Prep

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210193-04	Client Sample Name: NASA/JPL, MW-3-3, 5/2/2022 9:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00041	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.5	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	0.81	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	1000	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 15:49	MKB	IC-4	1	B139225	No Prep
2	EPA-200.8	05/05/22 10:50	05/06/22 14:48	ARD	PE-EL2	1	B138925	EPA 200.2
3	EPA-200.7	05/06/22 10:40	05/10/22 14:38	JRG	PE-OP4	1	B139042	EPA 200.2

DCN = Data Continuation Number



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## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-05	Client Sample Name:	NASA/JPL, MW-3-2, 5/2/2022 10:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210193-05      **Client Sample Name:** NASA/JPL, MW-3-2, 5/2/2022 10:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210193-05	<b>Client Sample Name:</b> NASA/JPL, MW-3-2, 5/2/2022 10:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	89.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22 03:53	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number





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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-05	Client Sample Name: NASA/JPL, MW-3-2, 5/2/2022 10:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22	03:53	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210193-05	Client Sample Name: NASA/JPL, MW-3-2, 5/2/2022 10:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 18:21	ADC	MS-V16	1	B139165	EPA 524.2

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210193-05	Client Sample Name:	NASA/JPL, MW-3-2, 5/2/2022 10:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	61	mg/L	0.10	0.014	EPA-200.7	0.037		1	
Total Recoverable Magnesium	19	mg/L	0.050	0.019	EPA-200.7	ND		1	
Total Recoverable Sodium	23	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	3.0	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	20	mg/L	0.50	0.13	EPA-300.0	0.24		3	
Nitrate as N	1.4	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	38	mg/L	1.0	0.14	EPA-300.0	ND		3	
pH	7.64	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	310	mg/L	20	10	EPA-160.1	ND	A10	5	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6	
Perchlorate	3.4	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/06/22 10:40	05/10/22 14:40		JRG	PE-OP4	1	B139042	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 09:19		RML	MET-1	1	B138198	No Prep
3	EPA-300.0	05/03/22 15:00	05/03/22 19:00		MKB	IC5	1	B138847	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 09:19		RML	MET-1	1	B138198	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	2	B138975	No Prep
6	EPA-353.2	05/03/22 22:18	05/03/22 22:24		MKB	KONE-1	1	B139135	No Prep
7	EPA-314.0	05/11/22 19:00	05/11/22 23:29		MKB	IC6	1	B139436	No Prep

DCN = Data Continuation Number



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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210193-05	Client Sample Name: NASA/JPL, MW-3-2, 5/2/2022 10:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00036	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 15:58		MKB	IC-4	1	B139225	No Prep
2	EPA-200.8	05/05/22 10:50	05/06/22 14:50		ARD	PE-EL2	1	B138925	EPA 200.2
3	EPA-200.7	05/06/22 10:40	05/10/22 14:40		JRG	PE-OP4	1	B139042	EPA 200.2

DCN = Data Continuation Number



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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-06	Client Sample Name:	NASA/JPL, MW-3-1, 5/2/2022 11:20:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-06	Client Sample Name:	NASA/JPL, MW-3-1, 5/2/2022 11:20:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210193-06	Client Sample Name: NASA/JPL, MW-3-1, 5/2/2022 11:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	90.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22 04:17	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-06	Client Sample Name: NASA/JPL, MW-3-1, 5/2/2022 11:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22	04:17	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number





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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210193-06	Client Sample Name: NASA/JPL, MW-3-1, 5/2/2022 11:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 18:48	ADC	MS-V16	1	B139165	EPA 524.2

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210193-06	Client Sample Name:	NASA/JPL, MW-3-1, 5/2/2022 11:20:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	61	mg/L	0.10	0.014	EPA-200.7	0.037		1	
Total Recoverable Magnesium	21	mg/L	0.050	0.019	EPA-200.7	ND		1	
Total Recoverable Sodium	26	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	3.4	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	260	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	210	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	12	mg/L	0.50	0.13	EPA-300.0	0.24		3	
Nitrate as N	6.0	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	37	mg/L	1.0	0.14	EPA-300.0	ND		3	
pH	8.05	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	340	mg/L	20	10	EPA-160.1	ND	A10	5	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6	
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/06/22 10:40	05/10/22 14:42		JRG	PE-OP4	1	B139042	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 09:29		RML	MET-1	1	B138198	No Prep
3	EPA-300.0	05/03/22 15:00	05/03/22 21:05		MKB	IC5	1	B138847	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 09:29		RML	MET-1	1	B138198	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	2	B138975	No Prep
6	EPA-353.2	05/03/22 22:18	05/03/22 22:24		MKB	KONE-1	1	B139135	No Prep
7	EPA-314.0	05/11/22 19:00	05/11/22 23:45		MKB	IC6	1	B139436	No Prep

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210193-06	Client Sample Name: NASA/JPL, MW-3-1, 5/2/2022 11:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00015	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	210	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 16:08		MKB	IC-4	1	B139225	No Prep
2	EPA-200.8	05/05/22 10:50	05/06/22 14:51		ARD	PE-EL2	1	B138925	EPA 200.2
3	EPA-200.7	05/06/22 10:40	05/10/22 14:42		JRG	PE-OP4	1	B139042	EPA 200.2

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-07	Client Sample Name:	NASA/JPL, TB-6-050222, 5/2/2022 7:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210193-07      **Client Sample Name:** NASA/JPL, TB-6-050222, 5/2/2022 7:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210193-07	<b>Client Sample Name:</b> NASA/JPL, TB-6-050222, 5/2/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	93.0	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	87.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22 00:38	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-07	Client Sample Name: NASA/JPL, TB-6-050222, 5/2/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22	00:38	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210193-08      **Client Sample Name:** NASA/JPL, MW-25-5, 5/2/2022 1:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-08	Client Sample Name:	NASA/JPL, MW-25-5, 5/2/2022 1:35:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210193-08      **Client Sample Name:** NASA/JPL, MW-25-5, 5/2/2022 1:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22 04:42	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-08	Client Sample Name: NASA/JPL, MW-25-5, 5/2/2022 1:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22	04:42	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/25/2022 17:27  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2022  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210193-08	<b>Client Sample Name:</b> NASA/JPL, MW-25-5, 5/2/2022 1:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 19:40	ADC	MS-V16	1	B139165	EPA 524.2

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210193-08	Client Sample Name:	NASA/JPL, MW-25-5, 5/2/2022 1:35:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	12	mg/L	0.10	0.014	EPA-200.7	0.037		1
Total Recoverable Magnesium	7.1	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	64	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	100	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	7.7	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	96	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	15	mg/L	0.50	0.13	EPA-300.0	0.24		3
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	65	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	8.76	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	250	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-200.7	05/06/22 10:40	05/10/22 14:44	JRG	PE-OP4	1	B139042	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 09:39	RML	MET-1	1	B138198	No Prep
3	EPA-300.0	05/03/22 15:00	05/03/22 20:11	MKB	IC5	1	B138847	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 09:39	RML	MET-1	1	B138198	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30	CAD	MANUAL	2	B138975	No Prep
6	EPA-353.2	05/03/22 22:18	05/03/22 22:24	MKB	KONE-1	1	B139135	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 00:00	MKB	IC6	1	B139436	No Prep

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210193-08	Client Sample Name: NASA/JPL, MW-25-5, 5/2/2022 1:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00014	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 16:18	MKB	IC-4	1	B139225	No Prep
2	EPA-200.8	05/05/22 10:50	05/09/22 12:26	ARD	PE-EL4	1	B138924	EPA 200.2
3	EPA-200.7	05/06/22 10:40	05/10/22 14:44	JRG	PE-OP4	1	B139042	EPA 200.2

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-09	Client Sample Name:	NASA/JPL, MW-25-4, 5/2/2022 2:00:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-09	Client Sample Name:	NASA/JPL, MW-25-4, 5/2/2022 2:00:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210193-09      **Client Sample Name:** NASA/JPL, MW-25-4, 5/2/2022 2:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	88.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22 05:06	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-09	Client Sample Name: NASA/JPL, MW-25-4, 5/2/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22	05:06	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210193-09	Client Sample Name: NASA/JPL, MW-25-4, 5/2/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 20:06	ADC	MS-V16	1	B139165	EPA 524.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210193-09	Client Sample Name:	NASA/JPL, MW-25-4, 5/2/2022 2:00:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	99	mg/L	0.10	0.014	EPA-200.7	0.037		1
Total Recoverable Magnesium	26	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	47	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.5	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	290	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	240	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	62	mg/L	0.50	0.13	EPA-300.0	0.24		3
Nitrate as N	6.8	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	92	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	8.02	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	530	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	7.3	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/06/22 10:40	05/10/22 14:46		JRG	PE-OP4	1	B139042	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 09:49		RML	MET-1	1	B138198	No Prep
3	EPA-300.0	05/03/22 15:00	05/03/22 20:29		MKB	IC5	1	B138847	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 09:49		RML	MET-1	1	B138198	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	3.333	B138975	No Prep
6	EPA-353.2	05/03/22 22:18	05/03/22 22:24		MKB	KONE-1	1	B139135	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 00:15		MKB	IC6	1	B139436	No Prep

DCN = Data Continuation Number

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210193-09	Client Sample Name: NASA/JPL, MW-25-4, 5/2/2022 2:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0013	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.1	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	0.97	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 16:27	MKB	IC-4	1	B139225	No Prep
2	EPA-200.8	05/06/22 11:10	05/10/22 12:07	KHS	PE-EL4	1	B139051	EPA 200.2
3	EPA-200.7	05/06/22 10:40	05/10/22 14:46	JRG	PE-OP4	1	B139042	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-10	Client Sample Name:	NASA/JPL, MW-25-3, 5/2/2022 2:35:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.36</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-10	Client Sample Name:	NASA/JPL, MW-25-3, 5/2/2022 2:35:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>3.4</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		<b>1</b>	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210193-10      **Client Sample Name:** NASA/JPL, MW-25-3, 5/2/2022 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/05/22 22:12	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-10	Client Sample Name: NASA/JPL, MW-25-3, 5/2/2022 2:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/05/22	22:12	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/25/2022 17:27  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2022  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210193-10	<b>Client Sample Name:</b> NASA/JPL, MW-25-3, 5/2/2022 2:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 16:37	ADC	MS-V16	1	B139165	EPA 524.2

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210193-10	Client Sample Name:	NASA/JPL, MW-25-3, 5/2/2022 2:35:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	78	mg/L	0.10	0.014	EPA-200.7	0.037		1
Total Recoverable Magnesium	23	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	34	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	240	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	200	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	46	mg/L	0.50	0.13	EPA-300.0	0.21		3
Nitrate as N	9.4	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	65	mg/L	1.0	0.14	EPA-300.0	0.35		3
pH	8.03	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	450	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	8.2	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/06/22 10:40	05/10/22 14:14		JRG	PE-OP4	1	B139042	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 10:19		RML	MET-1	1	B138199	No Prep
3	EPA-300.0	05/03/22 15:00	05/03/22 20:47		MKB	IC5	1	B138848	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 10:19		RML	MET-1	1	B138199	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	2	B138975	No Prep
6	EPA-353.2	05/03/22 22:18	05/03/22 22:18		MKB	KONE-1	1	B139135	No Prep
7	EPA-314.0	05/11/22 19:00	05/11/22 20:36		KB1	IC6	1	B139436	No Prep

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2210193-10	<b>Client Sample Name:</b> NASA/JPL, MW-25-3, 5/2/2022 2:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0038	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
<b>Total Recoverable Chromium</b>	<b>3.5</b>	<b>ug/L</b>	<b>3.0</b>	<b>0.50</b>	<b>EPA-200.8</b>	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 16:56	MKB	IC-4	1	B139225	No Prep
2	EPA-200.8	05/05/22 10:50	05/06/22 14:27	ARD	PE-EL2	1	B138925	EPA 200.2
3	EPA-200.7	05/06/22 10:40	05/10/22 14:14	JRG	PE-OP4	1	B139042	EPA 200.2

DCN = Data Continuation Number

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210193-11		Client Sample Name: NASA/JPL, EB-6-050222, 5/2/2022 3:00:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210193-11      **Client Sample Name:** NASA/JPL, EB-6-050222, 5/2/2022 3:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210193-11	<b>Client Sample Name:</b> NASA/JPL, EB-6-050222, 5/2/2022 3:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	88.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22 05:30	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-11	Client Sample Name: NASA/JPL, EB-6-050222, 5/2/2022 3:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22	05:30	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number





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**Reported:** 05/25/2022 17:27  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2022  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210193-11	<b>Client Sample Name:</b> NASA/JPL, EB-6-050222, 5/2/2022 3:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 20:33	ADC	MS-V16	1	B139165	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210193-11	Client Sample Name:	NASA/JPL, EB-6-050222, 5/2/2022 3:00:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	0.087	mg/L	0.10	0.014	EPA-200.7	0.037	J	1
Total Recoverable Magnesium	ND	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	0.18	mg/L	0.50	0.051	EPA-200.7	ND	J	1
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	ND	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	0.21	mg/L	0.50	0.13	EPA-300.0	0.24	J	3
Nitrate as N	0.044	mg/L	0.10	0.024	EPA-300.0	ND	J	3
Sulfate	ND	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	6.28	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	3.3	mg/L	6.7	3.3	EPA-160.1	ND	J	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/06/22 10:40	05/10/22 14:49		JRG	PE-OP4	1	B139042	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 10:38		RML	MET-1	1	B138199	No Prep
3	EPA-300.0	05/03/22 15:00	05/03/22 19:53		MKB	IC5	1	B138847	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 10:38		RML	MET-1	1	B138199	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	0.667	B138975	No Prep
6	EPA-353.2	05/03/22 22:18	05/03/22 22:24		MKB	KONE-1	1	B139135	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 00:31		MKB	IC6	1	B139436	No Prep

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210193-11	Client Sample Name: NASA/JPL, EB-6-050222, 5/2/2022 3:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000080	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time	Date/Time				Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 17:34		MKB	IC-4	1	B139225	No Prep
2	EPA-200.8	05/06/22 11:10	05/10/22 12:09		KHS	PE-EL4	1	B139051	EPA 200.2
3	EPA-200.7	05/06/22 10:40	05/10/22 14:49		JRG	PE-OP4	1	B139042	EPA 200.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210193-12      **Client Sample Name:** NASA/JPL, SB-2-050222, 5/2/2022 3:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210193-12	Client Sample Name:	NASA/JPL, SB-2-050222, 5/2/2022 3:10:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210193-12	<b>Client Sample Name:</b> NASA/JPL, SB-2-050222, 5/2/2022 3:10:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	91.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22 05:55	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210193-12	Client Sample Name: NASA/JPL, SB-2-050222, 5/2/2022 3:10:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/05/22 09:00	05/06/22	05:55	MGC	MS-V5	1	B138869	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/25/2022 17:27  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2022  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210193-12	<b>Client Sample Name:</b> NASA/JPL, SB-2-050222, 5/2/2022 3:10:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 20:59	ADC	MS-V16	1	B139165	EPA 524.2

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 Project Number: 2022  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210193-12	Client Sample Name:	NASA/JPL, SB-2-050222, 5/2/2022 3:10:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	0.063	mg/L	0.10	0.014	EPA-200.7	0.037	J	1
Total Recoverable Magnesium	ND	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	0.17	mg/L	0.50	0.051	EPA-200.7	ND	J	1
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	ND	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	0.22	mg/L	0.50	0.13	EPA-300.0	0.24	J	3
Nitrate as N	0.075	mg/L	0.10	0.024	EPA-300.0	ND	J	3
Sulfate	0.33	mg/L	1.0	0.14	EPA-300.0	ND	J	3
pH	6.21	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	4.0	mg/L	6.7	3.3	EPA-160.1	ND	J	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/06/22 10:40	05/10/22 14:51		JRG	PE-OP4	1	B139042	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 10:45		RML	MET-1	1	B138199	No Prep
3	EPA-300.0	05/03/22 15:00	05/04/22 03:53		SAV	IC5	1	B138847	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 10:45		RML	MET-1	1	B138199	No Prep
5	EPA-160.1	05/05/22 14:30	05/05/22 14:30		CAD	MANUAL	0.667	B138974	No Prep
6	EPA-353.2	05/03/22 22:18	05/03/22 22:24		MKB	KONE-1	1	B139136	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 00:46		MKB	IC6	1	B139436	No Prep

DCN = Data Continuation Number



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## Metals Analysis

BCL Sample ID: 2210193-12	Client Sample Name: NASA/JPL, SB-2-050222, 5/2/2022 3:10:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000060	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 18:03		MKB	IC-4	1	B139226	No Prep
2	EPA-200.8	05/06/22 11:10	05/10/22 12:11		KHS	PE-EL4	1	B139051	EPA 200.2
3	EPA-200.7	05/06/22 10:40	05/10/22 14:51		JRG	PE-OP4	1	B139042	EPA 200.2

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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: B138869</b>						
Benzene	B138869-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B138869-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B138869-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B138869-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B138869-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B138869-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B138869-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B138869-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B138869-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B138869-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B138869-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B138869-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B138869-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B138869-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B138869-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B138869-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B138869-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B138869-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B138869-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B138869-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B138869-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B138869-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B138869-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B138869-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B138869-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B138869-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B138869-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B138869-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B138869-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B138869-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B138869-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B138869-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B138869-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B138869-BLK1	ND	ug/L	0.50	0.14	

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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: B138869</b>						
trans-1,3-Dichloropropene	B138869-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B138869-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B138869-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B138869-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B138869-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B138869-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B138869-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B138869-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B138869-BLK1	ND	ug/L	0.50	0.12	
Styrene	B138869-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B138869-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B138869-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B138869-BLK1	ND	ug/L	0.50	0.23	
Toluene	B138869-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B138869-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B138869-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B138869-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B138869-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B138869-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B138869-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B138869-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B138869-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B138869-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B138869-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B138869-BLK1	ND	ug/L	0.50	0.18	
Acetone	B138869-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B138869-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B138869-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B138869-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B138869-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B138869-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B138869-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B138869-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B138869-BLK1	ND	ug/L	4.0	1.3	

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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: B138869</b>						
Ethyl t-butyl ether	B138869-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B138869-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B138869-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B138869-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B138869-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B138869-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B138869-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B138869-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B138869-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B138869-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B138869-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B138869-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B138869-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B138869-BLK1</b>	<b>95.6</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B138869-BLK1</b>	<b>97.3</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B138869-BLK1</b>	<b>89.0</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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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: B138869</b>										
Benzene	B138869-BS1	LCS	23.230	25.000	ug/L	92.9		70 - 130		
Bromodichloromethane	B138869-BS1	LCS	23.710	25.000	ug/L	94.8		70 - 130		
Chlorobenzene	B138869-BS1	LCS	24.030	25.000	ug/L	96.1		70 - 130		
Chloroethane	B138869-BS1	LCS	24.750	25.000	ug/L	99.0		70 - 130		
1,4-Dichlorobenzene	B138869-BS1	LCS	24.110	25.000	ug/L	96.4		70 - 130		
1,1-Dichloroethane	B138869-BS1	LCS	24.440	25.000	ug/L	97.8		70 - 130		
1,1-Dichloroethene	B138869-BS1	LCS	24.830	25.000	ug/L	99.3		70 - 130		
Toluene	B138869-BS1	LCS	23.090	25.000	ug/L	92.4		70 - 130		
Trichloroethene	B138869-BS1	LCS	25.220	25.000	ug/L	101		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B138869-BS1	LCS	9.9400	10.000	ug/L	99.4		75 - 125		
Toluene-d8 (Surrogate)	B138869-BS1	LCS	9.9900	10.000	ug/L	99.9		80 - 120		
4-Bromofluorobenzene (Surrogate)	B138869-BS1	LCS	9.8200	10.000	ug/L	98.2		80 - 120		

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 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	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138869</b>		Used client sample: Y - Description: MW-25-3, 05/02/2022 14:35									
Benzene	MS	2210193-10	ND	23.670	25.000	ug/L		94.7		70 - 130	
	MSD	2210193-10	ND	22.570	25.000	ug/L	4.8	90.3	20	70 - 130	
Bromodichloromethane	MS	2210193-10	ND	24.720	25.000	ug/L		98.9		70 - 130	
	MSD	2210193-10	ND	23.320	25.000	ug/L	5.8	93.3	20	70 - 130	
Chlorobenzene	MS	2210193-10	ND	23.510	25.000	ug/L		94.0		70 - 130	
	MSD	2210193-10	ND	22.440	25.000	ug/L	4.7	89.8	20	70 - 130	
Chloroethane	MS	2210193-10	ND	24.820	25.000	ug/L		99.3		70 - 130	
	MSD	2210193-10	ND	23.840	25.000	ug/L	4.0	95.4	20	70 - 130	
1,4-Dichlorobenzene	MS	2210193-10	ND	23.170	25.000	ug/L		92.7		70 - 130	
	MSD	2210193-10	ND	22.030	25.000	ug/L	5.0	88.1	20	70 - 130	
1,1-Dichloroethane	MS	2210193-10	ND	25.000	25.000	ug/L		100		70 - 130	
	MSD	2210193-10	ND	24.050	25.000	ug/L	3.9	96.2	20	70 - 130	
1,1-Dichloroethene	MS	2210193-10	ND	25.290	25.000	ug/L		101		70 - 130	
	MSD	2210193-10	ND	23.910	25.000	ug/L	5.6	95.6	20	70 - 130	
Toluene	MS	2210193-10	ND	23.780	25.000	ug/L		95.1		70 - 130	
	MSD	2210193-10	ND	22.210	25.000	ug/L	6.8	88.8	20	70 - 130	
Trichloroethene	MS	2210193-10	ND	24.620	25.000	ug/L		98.5		70 - 130	
	MSD	2210193-10	ND	23.390	25.000	ug/L	5.1	93.6	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2210193-10	ND	9.7400	10.000	ug/L		97.4		75 - 125	
	MSD	2210193-10	ND	10.000	10.000	ug/L	2.6	100		75 - 125	
Toluene-d8 (Surrogate)	MS	2210193-10	ND	10.070	10.000	ug/L		101		80 - 120	
	MSD	2210193-10	ND	9.8900	10.000	ug/L	1.8	98.9		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2210193-10	ND	9.6300	10.000	ug/L		96.3		80 - 120	
	MSD	2210193-10	ND	9.6100	10.000	ug/L	0.2	96.1		80 - 120	

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 Project Number: 2022  
 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: B138869</b>						
Nitrobenzene	B138869-BLK1	0	ug/L			
Methyl acrylate	B138869-BLK1	0	ug/L			
Chloroacetonitrile	B138869-BLK1	0	ug/L			
2-Nitropropane	B138869-BLK1	0	ug/L			
1-Chlorobutane	B138869-BLK1	0	ug/L			
1,1-Dichloropropanone	B138869-BLK1	0	ug/L			

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 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B139165</b>						
1,2,3-Trichloropropane	B139165-BLK1	ND	ug/L	0.0050	0.0010	

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 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### 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: B139165</b>										
1,2,3-Trichloropropane	B139165-BS1	LCS	0.044100	0.050000	ug/L	88.2		80	120	

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## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab	
									RPD	Percent Recovery		
<b>QC Batch ID: B139165</b>		Used client sample: Y - Description: MW-25-3, 05/02/2022 14:35										
1,2,3-Trichloropropane	MS	2210193-10	ND	0.055330	0.050000	ug/L		111		70 - 130		
	MSD	2210193-10	ND	0.050300	0.050000	ug/L	9.5	101	30	70 - 130		

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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: B138198</b>						
Bicarbonate	B138198-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138198-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138198-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138199</b>						
Bicarbonate	B138199-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138199-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138199-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138847</b>						
Chloride	B138847-BLK1	0.24100	mg/L	0.50	0.13	J
Nitrate as N	B138847-BLK1	ND	mg/L	0.10	0.024	
Sulfate	B138847-BLK1	ND	mg/L	1.0	0.14	
<b>QC Batch ID: B138848</b>						
Chloride	B138848-BLK1	0.21000	mg/L	0.50	0.13	J
Nitrate as N	B138848-BLK1	ND	mg/L	0.10	0.024	
Sulfate	B138848-BLK1	0.34800	mg/L	1.0	0.14	J
<b>QC Batch ID: B138974</b>						
Total Dissolved Solids @ 180 C	B138974-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B138975</b>						
Total Dissolved Solids @ 180 C	B138975-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B139041</b>						
Total Recoverable Calcium	B139041-BLK1	ND	mg/L	0.10	0.014	
Total Recoverable Magnesium	B139041-BLK1	ND	mg/L	0.050	0.019	
Total Recoverable Sodium	B139041-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B139041-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B139042</b>						
Total Recoverable Calcium	B139042-BLK1	0.037138	mg/L	0.10	0.014	J
Total Recoverable Magnesium	B139042-BLK1	ND	mg/L	0.050	0.019	
Total Recoverable Sodium	B139042-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B139042-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B139135</b>						
Nitrite as N	B139135-BLK1	ND	mg/L	0.050	0.010	

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Project: JPL- GW Monitoring Wells-CLP  
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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: B139136</b>						
Nitrite as N	B139136-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B139436</b>						
Perchlorate	B139436-BLK1	ND	ug/L	2.0	0.81	

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 Powell, OH 43065

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 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: B138198</b>										
Total Alkalinity as CaCO3	B138198-BS3	LCS	100.29	100.00	mg/L	100		90 - 110		
pH	B138198-BS2	LCS	7.0400	7.0000	pH Units	101		95 - 105		
<b>QC Batch ID: B138199</b>										
Total Alkalinity as CaCO3	B138199-BS3	LCS	100.89	100.00	mg/L	101		90 - 110		
pH	B138199-BS2	LCS	7.0200	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B138847</b>										
Chloride	B138847-BS1	LCS	51.554	50.000	mg/L	103		90 - 110		
Nitrate as N	B138847-BS1	LCS	5.1830	5.0000	mg/L	104		90 - 110		
Sulfate	B138847-BS1	LCS	101.00	100.00	mg/L	101		90 - 110		
<b>QC Batch ID: B138848</b>										
Chloride	B138848-BS1	LCS	51.005	50.000	mg/L	102		90 - 110		
Nitrate as N	B138848-BS1	LCS	5.1240	5.0000	mg/L	102		90 - 110		
Sulfate	B138848-BS1	LCS	99.214	100.00	mg/L	99.2		90 - 110		
<b>QC Batch ID: B138974</b>										
Total Dissolved Solids @ 180 C	B138974-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
	B138974-BSD1	LCSD	590.00	586.00	mg/L	101	4.3	90 - 110	200	
<b>QC Batch ID: B138975</b>										
Total Dissolved Solids @ 180 C	B138975-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
	B138975-BSD1	LCSD	595.00	586.00	mg/L	102	0.8	90 - 110	200	
<b>QC Batch ID: B139041</b>										
Total Recoverable Calcium	B139041-BS1	LCS	10.618	10.000	mg/L	106		85 - 115		
Total Recoverable Magnesium	B139041-BS1	LCS	10.490	10.000	mg/L	105		85 - 115		
Total Recoverable Sodium	B139041-BS1	LCS	10.459	10.000	mg/L	105		85 - 115		
Total Recoverable Potassium	B139041-BS1	LCS	10.111	10.000	mg/L	101		85 - 115		
<b>QC Batch ID: B139042</b>										
Total Recoverable Calcium	B139042-BS1	LCS	10.519	10.000	mg/L	105		85 - 115		
Total Recoverable Magnesium	B139042-BS1	LCS	10.311	10.000	mg/L	103		85 - 115		
Total Recoverable Sodium	B139042-BS1	LCS	10.252	10.000	mg/L	103		85 - 115		
Total Recoverable Potassium	B139042-BS1	LCS	10.459	10.000	mg/L	105		85 - 115		
<b>QC Batch ID: B139135</b>										
Nitrite as N	B139135-BS1	LCS	0.50895	0.50000	mg/L	102		90 - 110		
<b>QC Batch ID: B139136</b>										
Nitrite as N	B139136-BS1	LCS	0.48495	0.50000	mg/L	97.0		90 - 110		

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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: B139436</b>										
Perchlorate	B139436-BS1	LCS	9.1741	10.000	ug/L	91.7		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		
								Percent Recovery	RPD	Percent Recovery
<b>QC Batch ID: B138198</b>		Used client sample: N								
Bicarbonate	DUP	2210190-02	432.37	435.66		mg/L	0.8		10	
Carbonate	DUP	2210190-02	ND	ND		mg/L			10	
Total Alkalinity as CaCO3	DUP	2210190-02	354.61	357.31		mg/L	0.8		10	
pH	DUP	2210190-02	7.2700	7.2900		pH Units	0.3		20	
<b>QC Batch ID: B138199</b>		Used client sample: Y - Description: MW-25-3, 05/02/2022 14:35								
Bicarbonate	DUP	2210193-10	239.98	237.24		mg/L	1.1		10	
Carbonate	DUP	2210193-10	ND	ND		mg/L			10	
Total Alkalinity as CaCO3	DUP	2210193-10	196.82	194.57		mg/L	1.1		10	
pH	DUP	2210193-10	8.0300	8.0500		pH Units	0.2		20	
<b>QC Batch ID: B138847</b>		Used client sample: Y - Description: MW-3-5, 05/02/2022 07:40								
Chloride	DUP	2210193-01	19.804	19.682		mg/L	0.6		10	
	MS	2210193-01	19.804	75.268	50.505	mg/L		110		80 - 120
	MSD	2210193-01	19.804	74.311	50.505	mg/L	1.3	108	10	80 - 120
Nitrate as N	DUP	2210193-01	1.1040	1.0960		mg/L	0.7		10	
	MS	2210193-01	1.1040	6.3131	5.0505	mg/L		103		80 - 120
	MSD	2210193-01	1.1040	6.2263	5.0505	mg/L	1.4	101	10	80 - 120
Sulfate	DUP	2210193-01	38.835	38.689		mg/L	0.4		10	
	MS	2210193-01	38.835	147.67	101.01	mg/L		108		80 - 120
	MSD	2210193-01	38.835	145.73	101.01	mg/L	1.3	106	10	80 - 120
<b>QC Batch ID: B138848</b>		Used client sample: Y - Description: MW-25-3, 05/02/2022 14:35								
Chloride	DUP	2210193-10	45.655	42.035		mg/L	8.3		10	
	MS	2210193-10	45.655	98.965	50.505	mg/L		106		80 - 120
	MSD	2210193-10	45.655	98.733	50.505	mg/L	0.2	105	10	80 - 120
Nitrate as N	DUP	2210193-10	9.4020	8.7350		mg/L	7.4		10	
	MS	2210193-10	9.4020	14.284	5.0505	mg/L		96.7		80 - 120
	MSD	2210193-10	9.4020	14.271	5.0505	mg/L	0.1	96.4	10	80 - 120
Sulfate	DUP	2210193-10	65.015	65.514		mg/L	0.8		10	
	MS	2210193-10	65.015	172.40	101.01	mg/L		106		80 - 120
	MSD	2210193-10	65.015	172.07	101.01	mg/L	0.2	106	10	80 - 120
<b>QC Batch ID: B138974</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	2210072-06	820.00	820.00		mg/L	0		10	
<b>QC Batch ID: B138975</b>		Used client sample: Y - Description: MW-25-3, 05/02/2022 14:35								
Total Dissolved Solids @ 180 C	DUP	2210193-10	448.00	444.00		mg/L	0.9		10	
<b>QC Batch ID: B139041</b>		Used client sample: N								

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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			
								Percent Recovery	RPD	Percent Recovery	Lab Quails
<b>QC Batch ID: B139041</b>		Used client sample: N									
Total Recoverable Calcium	DUP	2210367-01	27.231	25.565		mg/L	6.3		20		
	MS	2210367-01	27.231	35.793	10.000	mg/L		85.6		75 - 125	
	MSD	2210367-01	27.231	34.786	10.000	mg/L	2.9	75.5	20	75 - 125	
Total Recoverable Magnesium	DUP	2210367-01	14.848	14.074		mg/L	5.4		20		
	MS	2210367-01	14.848	25.077	10.000	mg/L		102		75 - 125	
	MSD	2210367-01	14.848	24.538	10.000	mg/L	2.2	96.9	20	75 - 125	
Total Recoverable Sodium	DUP	2210367-01	64.463	60.343		mg/L	6.6		20		
	MS	2210367-01	64.463	71.127	10.000	mg/L		66.6		75 - 125	A03
	MSD	2210367-01	64.463	68.257	10.000	mg/L	4.1	37.9	20	75 - 125	A03
Total Recoverable Potassium	DUP	2210367-01	3.8869	3.6571		mg/L	6.1		20		
	MS	2210367-01	3.8869	13.258	10.000	mg/L		93.7		75 - 125	
	MSD	2210367-01	3.8869	12.985	10.000	mg/L	2.1	91.0	20	75 - 125	
<b>QC Batch ID: B139042</b>		Used client sample: Y - Description: MW-25-3, 05/02/2022 14:35									
Total Recoverable Calcium	DUP	2210193-10	77.786	80.158		mg/L	3.0		20		
	MS	2210193-10	77.786	91.823	10.000	mg/L		140		75 - 125	A03
	MSD	2210193-10	77.786	93.085	10.000	mg/L	1.4	153	20	75 - 125	A03
Total Recoverable Magnesium	DUP	2210193-10	22.543	23.349		mg/L	3.5		20		
	MS	2210193-10	22.543	33.657	10.000	mg/L		111		75 - 125	
	MSD	2210193-10	22.543	34.228	10.000	mg/L	1.7	117	20	75 - 125	
Total Recoverable Sodium	DUP	2210193-10	33.982	35.154		mg/L	3.4		20		
	MS	2210193-10	33.982	45.699	10.000	mg/L		117		75 - 125	
	MSD	2210193-10	33.982	46.215	10.000	mg/L	1.1	122	20	75 - 125	
Total Recoverable Potassium	DUP	2210193-10	2.8187	2.9314		mg/L	3.9		20		
	MS	2210193-10	2.8187	13.218	10.000	mg/L		104		75 - 125	
	MSD	2210193-10	2.8187	13.398	10.000	mg/L	1.4	106	20	75 - 125	
<b>QC Batch ID: B139135</b>		Used client sample: Y - Description: MW-25-3, 05/02/2022 14:35									
Nitrite as N	DUP	2210193-10	ND	ND		mg/L			10		
	MS	2210193-10	ND	0.53444	0.52632	mg/L		102		90 - 110	
	MSD	2210193-10	ND	0.52842	0.52632	mg/L	1.1	100	10	90 - 110	
<b>QC Batch ID: B139136</b>		Used client sample: Y - Description: SB-2-050222, 05/02/2022 15:10									
Nitrite as N	DUP	2210193-12	ND	ND		mg/L			10		
	MS	2210193-12	ND	0.51247	0.52632	mg/L		97.4		90 - 110	
	MSD	2210193-12	ND	0.51649	0.52632	mg/L	0.8	98.1	10	90 - 110	
<b>QC Batch ID: B139436</b>		Used client sample: Y - Description: MW-25-3, 05/02/2022 14:35									
Perchlorate	DUP	2210193-10	8.1750	8.2139		ug/L	0.5		15		
	MS	2210193-10	8.1750	16.541	10.101	ug/L		82.8		80 - 120	
	MSD	2210193-10	8.1750	16.318	10.101	ug/L	1.4	80.6	15	80 - 120	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 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: B138923</b>						
Total Recoverable Arsenic	B138923-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B138923-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B138923-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B138924</b>						
Total Recoverable Arsenic	B138924-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B138924-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B138924-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B138925</b>						
Total Recoverable Arsenic	B138925-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B138925-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B138925-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B139041</b>						
Total Recoverable Iron	B139041-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B139042</b>						
Total Recoverable Iron	B139042-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B139051</b>						
Total Recoverable Arsenic	B139051-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B139051-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B139051-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B139225</b>						
Hexavalent Chromium	B139225-BLK1	ND	mg/L	0.00020	0.000020	
<b>QC Batch ID: B139226</b>						
Hexavalent Chromium	B139226-BLK1	ND	mg/L	0.00020	0.000020	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 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 Quails
								Percent Recovery	RPD	
<b>QC Batch ID: B138923</b>										
Total Recoverable Arsenic	B138923-BS1	LCS	99.040	100.00	ug/L	99.0		85 - 115		
Total Recoverable Chromium	B138923-BS1	LCS	43.860	40.000	ug/L	110		85 - 115		
Total Recoverable Lead	B138923-BS1	LCS	103.50	100.00	ug/L	104		85 - 115		
<b>QC Batch ID: B138924</b>										
Total Recoverable Arsenic	B138924-BS1	LCS	89.533	100.00	ug/L	89.5		85 - 115		
Total Recoverable Chromium	B138924-BS1	LCS	37.833	40.000	ug/L	94.6		85 - 115		
Total Recoverable Lead	B138924-BS1	LCS	93.728	100.00	ug/L	93.7		85 - 115		
<b>QC Batch ID: B138925</b>										
Total Recoverable Arsenic	B138925-BS1	LCS	102.41	100.00	ug/L	102		85 - 115		
Total Recoverable Chromium	B138925-BS1	LCS	45.289	40.000	ug/L	113		85 - 115		
Total Recoverable Lead	B138925-BS1	LCS	112.63	100.00	ug/L	113		85 - 115		
<b>QC Batch ID: B139041</b>										
Total Recoverable Iron	B139041-BS1	LCS	1051.9	1000.0	ug/L	105		85 - 115		
<b>QC Batch ID: B139042</b>										
Total Recoverable Iron	B139042-BS1	LCS	1036.9	1000.0	ug/L	104		85 - 115		
<b>QC Batch ID: B139051</b>										
Total Recoverable Arsenic	B139051-BS1	LCS	98.018	100.00	ug/L	98.0		85 - 115		
	B139051-BSD1	LCSD	100.11	100.00	ug/L	100	2.1	85 - 115		20
Total Recoverable Chromium	B139051-BS1	LCS	42.694	40.000	ug/L	107		85 - 115		
	B139051-BSD1	LCSD	42.721	40.000	ug/L	107	0.1	85 - 115		20
Total Recoverable Lead	B139051-BS1	LCS	101.08	100.00	ug/L	101		85 - 115		
	B139051-BSD1	LCSD	103.06	100.00	ug/L	103	1.9	85 - 115		20
<b>QC Batch ID: B139225</b>										
Hexavalent Chromium	B139225-BS1	LCS	0.020030	0.020000	mg/L	100		90 - 110		
<b>QC Batch ID: B139226</b>										
Hexavalent Chromium	B139226-BS1	LCS	0.019895	0.020000	mg/L	99.5		90 - 110		

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B138923</b>		Used client sample: Y - Description: MW-3-4, 05/02/2022 08:15									
Total Recoverable Arsenic	DUP	2210193-02	4.6690	3.8780		ug/L	18.5		20		
	MS	2210193-02	4.6690	118.40	100.00	ug/L		114		70 - 130	
	MSD	2210193-02	4.6690	113.78	100.00	ug/L	4.0	109	20	70 - 130	
Total Recoverable Chromium	DUP	2210193-02	5.8560	5.5080		ug/L	6.1		20		
	MS	2210193-02	5.8560	46.854	40.000	ug/L		102		70 - 130	
	MSD	2210193-02	5.8560	45.495	40.000	ug/L	2.9	99.1	20	70 - 130	
Total Recoverable Lead	DUP	2210193-02	ND	ND		ug/L			20		
	MS	2210193-02	ND	102.48	100.00	ug/L		102		70 - 130	
	MSD	2210193-02	ND	97.576	100.00	ug/L	4.9	97.6	20	70 - 130	
<b>QC Batch ID: B138924</b>		Used client sample: Y - Description: MW-25-5, 05/02/2022 13:35									
Total Recoverable Arsenic	DUP	2210193-08	ND	0.85200		ug/L			20		J
	MS	2210193-08	ND	109.74	100.00	ug/L		110		70 - 130	
	MSD	2210193-08	ND	105.40	100.00	ug/L	4.0	105	20	70 - 130	
Total Recoverable Chromium	DUP	2210193-08	ND	ND		ug/L			20		
	MS	2210193-08	ND	40.537	40.000	ug/L		101		70 - 130	
	MSD	2210193-08	ND	38.995	40.000	ug/L	3.9	97.5	20	70 - 130	
Total Recoverable Lead	DUP	2210193-08	ND	ND		ug/L			20		
	MS	2210193-08	ND	103.61	100.00	ug/L		104		70 - 130	
	MSD	2210193-08	ND	98.415	100.00	ug/L	5.1	98.4	20	70 - 130	
<b>QC Batch ID: B138925</b>		Used client sample: Y - Description: MW-25-3, 05/02/2022 14:35									
Total Recoverable Arsenic	DUP	2210193-10	ND	1.5970		ug/L			20		J
	MS	2210193-10	ND	114.20	100.00	ug/L		114		70 - 130	
	MSD	2210193-10	ND	107.80	100.00	ug/L	5.8	108	20	70 - 130	
Total Recoverable Chromium	DUP	2210193-10	3.4890	3.3420		ug/L	4.3		20		
	MS	2210193-10	3.4890	41.946	40.000	ug/L		96.1		70 - 130	
	MSD	2210193-10	3.4890	40.299	40.000	ug/L	4.0	92.0	20	70 - 130	
Total Recoverable Lead	DUP	2210193-10	ND	ND		ug/L			20		
	MS	2210193-10	ND	104.33	100.00	ug/L		104		70 - 130	
	MSD	2210193-10	ND	101.51	100.00	ug/L	2.7	102	20	70 - 130	
<b>QC Batch ID: B139041</b>		Used client sample: N									
Total Recoverable Iron	DUP	2210367-01	ND	ND		ug/L			20		
	MS	2210367-01	ND	990.37	1000.0	ug/L		99.0		75 - 125	
	MSD	2210367-01	ND	1004.7	1000.0	ug/L	1.4	100	20	75 - 125	
<b>QC Batch ID: B139042</b>		Used client sample: Y - Description: MW-25-3, 05/02/2022 14:35									
Total Recoverable Iron	DUP	2210193-10	ND	ND		ug/L			20		
	MS	2210193-10	ND	1020.9	1000.0	ug/L		102		75 - 125	
	MSD	2210193-10	ND	1052.9	1000.0	ug/L	3.1	105	20	75 - 125	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:27  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2022  
 Project Manager: David Conner

## Metals Analysis

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B139051</b>		Used client sample: N									
Total Recoverable Arsenic	DUP	2210446-01	6.3770	5.9420		ug/L	7.1		20		
	MS	2210446-01	6.3770	112.33	100.00	ug/L		106		70 - 130	
	MSD	2210446-01	6.3770	111.43	100.00	ug/L	0.8	105	20	70 - 130	
Total Recoverable Chromium	DUP	2210446-01	ND	ND		ug/L			20		
	MS	2210446-01	ND	36.014	40.000	ug/L		90.0		70 - 130	
	MSD	2210446-01	ND	34.630	40.000	ug/L	3.9	86.6	20	70 - 130	
Total Recoverable Lead	DUP	2210446-01	0.43800	0.44000		ug/L	0.5		20		J
	MS	2210446-01	0.43800	91.808	100.00	ug/L		91.4		70 - 130	
	MSD	2210446-01	0.43800	88.371	100.00	ug/L	3.8	87.9	20	70 - 130	
<b>QC Batch ID: B139225</b>		Used client sample: Y - Description: MW-25-3, 05/02/2022 14:35									
Hexavalent Chromium	DUP	2210193-10	0.0037500	0.0036890		mg/L	1.6		10		
	MS	2210193-10	0.0037500	0.024235	0.020202	mg/L		101		90 - 110	
	MSD	2210193-10	0.0037500	0.023685	0.020202	mg/L	2.3	98.7	10	90 - 110	
<b>QC Batch ID: B139226</b>		Used client sample: N									
Hexavalent Chromium	DUP	2210373-08	0.00012900	0.00012400		mg/L	4.0		10		J
	MS	2210373-08	0.00012900	0.020215	0.020202	mg/L		99.4		90 - 110	
	MSD	2210373-08	0.00012900	0.020363	0.020202	mg/L	0.7	100	10	90 - 110	

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Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 05/25/2022 17:27  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2022  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A03 The sample concentration was more than 4 times the spike level.
- A10 Detection and quantitation limits were raised due to matrix interference.
- S05 The sample holding time was exceeded.
- V11 The Continuing Calibration Verification (CCV) recovery was not within established control limits.

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Date of Report: 05/25/2022

David Conner

Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

Client Project: 2Q22  
BCL Project: JPL- GW Monitoring Wells-CLP  
BCL Work Order: 2210373  
Invoice ID:

Enclosed are the results of analyses for samples received by the laboratory on 5/3/2022. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Molly Meyers".

Contact Person: Molly Meyers  
Client Service Rep

A handwritten signature in black ink that reads "Stuart Buttram".

Stuart Buttram  
Operations Manager

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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# Chain of Custody Form

Report To: **Tidewater, Inc.** 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.pacelabs.com

Client: **David Conner** Project #: **JPL-GW Monitoring** Analysis Requested

Attn: **David Conner** Project Name: **2Q22**

Street Address: **3761 Attucks Drive** BID#

City, State, Zip: **Powell, OH 43065** Sampler(s) Name: **Blaine Tech**

Phone: **626-298-5715** Fax: **614-792-2897**

Email: **david.conner@tideh2o.net**

Work Order #: **22-10373**

Sample #	Description	Date Sampled	Time Sampled	VOCS EPA 524.2	TRM: Cr, Pb, As, Ca, Mg, K	Na, Fe	Hexavalent Cr6 -218.6 (mg/L)	Cl, NO3, NO2, SO4, Perch.	CO3, HCO3, Alk., TDS, pH	Orthophosphate 365.1	1,4 Dioxane 8270SIM	NDMA 1625M	Low-level 1,2,3-TCP	Sample Matrix	Result Request	Notes
-1	TB-7 - 050322	5/13/22	07:00	X										Waste Water	<input type="checkbox"/> STD <input type="checkbox"/> 5 Day** <input type="checkbox"/> 4 Day** <input type="checkbox"/> 3 Day** <input type="checkbox"/> 2 Day** <input type="checkbox"/> 1 Day** Rush requests must be approved	
-2	MW-25-2	5/13/22	07:55	X	X	X	X	X	X	X	X	X	X	Ground Water		level four
-3	MW-25-1	5/13/22	08:25	X	X	X	X	X	X	X	X	X	X	Drinking Water		
-4	MW-18-5	5/13/22	10:30	X	X	X	X	X	X	X	X	X	X	Drinking Water		
-5	MW-18-4	5/13/22	11:20	X	X	X	X	X	X	X	X	X	X	Drinking Water		
-6	MW-18-3	5/13/22	12:45	X	X	X	X	X	X	X	X	X	X	Drinking Water		
-7	MW-18-2	5/13/22	13:20	X	X	X	X	X	X	X	X	X	X	Drinking Water		
-8	MW-20-5	05/15/22	14:50	X	X	X	X	X	X	X	X	X	X	Drinking Water		Level 4
-9	MW-20-4	5/13/22	15:25	X	X	X	X	X	X	X	X	X	X	Drinking Water		
-10	FB-7 - 050322	5/13/22	15:35	X	X	X	X	X	X	X	X	X	X	Drinking Water		

Comments: \_\_\_\_\_

Sample Matrix:  Waste Water  Ground Water  Drinking Water  Sludge  Soil  Other

Result Request:  STD  5 Day\*\*  4 Day\*\*  
 3 Day\*\*  2 Day\*\*  1 Day\*\*  
Rush requests must be approved

Notes: \_\_\_\_\_

SHORT HOLDING TIME:  NO  YES  OP  SS

DO, CL, BOD, MBAS, COT

CHLORINATION

EDF Required:  Yes  No

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

1. Retriquished By: \_\_\_\_\_ Date: 5/13/22 Time: 15:55

2. Retriquished By: \_\_\_\_\_ Date: 5/13/22 Time: 18:15

3. Retriquished By: \_\_\_\_\_ Date: 5/13/22 Time: 18:15

Billing:  Same as above

Client: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Attn: \_\_\_\_\_

P.O. #: \_\_\_\_\_

System # (Needed for CLP): \_\_\_\_\_

GIS/Key  Well Star

REV 12/2021

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BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>1</u> Of <u>2</u>						
Submission #: <u>22-10373</u>										
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> <u>W</u> / S					
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____										
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>										
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>VOA</u> Thermometer ID: <u>274</u>		Date/Time: <u>5/13/22</u>						
		Temperature: (A) <u>0.2</u> °C / (C) <u>0.3</u> °C		Analyst Init: <u>ZCI 1815</u>						
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES									G	
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>									I	
QT INORGANIC CHEMICAL METALS									H	
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		A-C	A-C	A-C	A-C	A-C	A-C	A-C	A-C	A-C
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL <sup>100ml</sup> Amber Vial		D-F	D-F	D-F	D-F	D-F	D-F	D-F	D-F	D-F
QT EPA 508/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 511.1										
Box EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: CAS Date/Time: 5/14/22 0915  
 A = Actual / C = Corrected

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>1</u> of <u>2</u>	
Submission #:					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> (W) S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments:					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments:					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>274</u>		Date/Time: <u>5/13/22</u>	
		Temperature: (A) <u>0.9</u> °C / (C) <u>0.6</u> °C		Analyst Init: <u>ZCI 1815</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		G	G	G	G	G	G	G		G
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>		I	I	I	I	I	I	I		I
QT INORGANIC CHEMICAL METALS		H	H	H	H	H	H	H		H
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL-504										
QT EPA 503/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: CAB Date/Time: 5/13/22 0915  
 A = Actual / C = Corrected



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 05/25/2022 17:44  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
<b>2210373-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-7-050322 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/03/2022 18:15 <b>Sampling Date:</b> 05/03/2022 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-7-050322 Matrix: WG Sample QC Type (SACode): CS Cooler ID:	
<b>2210373-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-2 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/03/2022 18:15 <b>Sampling Date:</b> 05/03/2022 07:55 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-2 Matrix: WG Sample QC Type (SACode): CS Cooler ID:	
<b>2210373-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-25-1 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/03/2022 18:15 <b>Sampling Date:</b> 05/03/2022 08:25 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-25-1 Matrix: WG Sample QC Type (SACode): CS Cooler ID:	

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**Reported:** 05/25/2022 17:44  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
2210373-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/03/2022 18:15
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 05/03/2022 11:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-18-4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-18-4
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2210373-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/03/2022 18:15
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 05/03/2022 10:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-18-5	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-18-5
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
2210373-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/03/2022 18:15
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 05/03/2022 12:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MW-18-3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): MW-18-3
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	

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**Reported:** 05/25/2022 17:44  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
2210373-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/03/2022 18:15	
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 05/03/2022 13:20	
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	MW-18-2	<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater	
			Delivery Work Order:	
			Global ID: 0000000000	
			Location ID (FieldPoint): MW-18-2	
			Matrix: WG	
			Sample QC Type (SACode): CS	
			Cooler ID:	
	<hr/>			
	2210373-08	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/03/2022 18:15
<b>Project Number:</b>		NASA/JPL	<b>Sampling Date:</b> 05/03/2022 14:50	
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---	
<b>Sampling Point:</b>		MW-20-5	<b>Lab Matrix:</b> Water	
<b>Sampled By:</b>		BTST	<b>Sample Type:</b> Groundwater	
			Delivery Work Order:	
			Global ID: 0000000000	
			Location ID (FieldPoint): MW-20-5	
			Matrix: WG	
			Sample QC Type (SACode): CS	
			Cooler ID:	
<hr/>				
2210373-09		<b>COC Number:</b>	---	<b>Receive Date:</b> 05/03/2022 18:15
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b> 05/03/2022 15:25	
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	MW-20-4	<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater	
			Delivery Work Order:	
			Global ID: 0000000000	
			Location ID (FieldPoint): MW-20-4	
			Matrix: WG	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Powell, OH 43065

**Reported:** 05/25/2022 17:44  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

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

<b>2210373-10</b>	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/03/2022 18:15
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/03/2022 15:35
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	EB-7-050322	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Blank Water
			Delivery Work Order:	
			Global ID: 0000000000	
			Location ID (FieldPoint): EB-7-050322	
			Matrix: WG	
			Sample QC Type (SACode): CS	
		Cooler ID:		

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210373-01	Client Sample Name:	NASA/JPL, TB-7-050322, 5/3/2022 7:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210373-01	Client Sample Name:	NASA/JPL, TB-7-050322, 5/3/2022 7:00:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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 Powell, OH 43065

Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210373-01	Client Sample Name: NASA/JPL, TB-7-050322, 5/3/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 01:43	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210373-01	Client Sample Name: NASA/JPL, TB-7-050322, 5/3/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	01:43	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210373-02	Client Sample Name:	NASA/JPL, MW-25-2, 5/3/2022 7:55:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>0.27</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210373-02	Client Sample Name:	NASA/JPL, MW-25-2, 5/3/2022 7:55:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.55</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.32</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210373-02	Client Sample Name: NASA/JPL, MW-25-2, 5/3/2022 7:55:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	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)	98.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 02:08	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210373-02	Client Sample Name: NASA/JPL, MW-25-2, 5/3/2022 7:55:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	02:08	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number





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 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210373-02	Client Sample Name: NASA/JPL, MW-25-2, 5/3/2022 7:55:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/11/22 06:00	05/11/22	09:11	ADC	MS-V16	1	B139272	EPA 524.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210373-02	Client Sample Name:	NASA/JPL, MW-25-2, 5/3/2022 7:55:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	81	mg/L	0.10	0.014	EPA-200.7	0.031		1
Total Recoverable Magnesium	25	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	30	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	260	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	220	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	53	mg/L	0.50	0.13	EPA-300.0	0.17		3
Nitrate as N	8.8	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	88	mg/L	1.0	0.14	EPA-300.0	0.22		3
pH	7.96	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	500	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	0.019	mg/L	0.050	0.010	EPA-353.2	0.018	J	6
Perchlorate	9.7	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/09/22 18:15	05/10/22 16:15		JRG	PE-OP4	1	B139254	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 17:24		RML	MET-1	1	B138202	No Prep
3	EPA-300.0	05/04/22 15:50	05/04/22 17:45		JAT	IC1	1	B138960	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 17:24		RML	MET-1	1	B138202	No Prep
5	EPA-160.1	05/06/22 13:00	05/06/22 13:00		CAD	MANUAL	3.333	B139045	No Prep
6	EPA-353.2	05/04/22 21:02	05/04/22 21:02		JAT	KONE-1	1	B139137	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 01:01		MKB	IC6	1	B139436	No Prep

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210373-02	Client Sample Name: NASA/JPL, MW-25-2, 5/3/2022 7:55:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0030	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.7	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	2.6	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 18:13		MKB	IC-4	1	B139226	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 23:07		AK1	PE-EL2	1	B139521	EPA 200.2
3	EPA-200.7	05/09/22 18:15	05/10/22 16:15		JRG	PE-OP4	1	B139254	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210373-03	Client Sample Name:	NASA/JPL, MW-25-1, 5/3/2022 8:25:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>0.81</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210373-03	Client Sample Name:	NASA/JPL, MW-25-1, 5/3/2022 8:25:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Methyl t-butyl ether</b>	<b>0.39</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	J	1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.38</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	J	1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210373-03	<b>Client Sample Name:</b> NASA/JPL, MW-25-1, 5/3/2022 8:25:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 02:32	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210373-03	Client Sample Name: NASA/JPL, MW-25-1, 5/3/2022 8:25:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	02:32	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210373-03	Client Sample Name: NASA/JPL, MW-25-1, 5/3/2022 8:25:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/11/22 06:00	05/11/22 09:37	ADC	MS-V16	1	B139272	EPA 524.2

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210373-03	Client Sample Name:	NASA/JPL, MW-25-1, 5/3/2022 8:25:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	92	mg/L	0.10	0.014	EPA-200.7	0.031		1
Total Recoverable Magnesium	28	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	36	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	270	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	220	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	66	mg/L	0.50	0.13	EPA-300.0	0.17		3
Nitrate as N	7.7	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	120	mg/L	1.0	0.14	EPA-300.0	0.22		3
pH	7.68	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	560	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	0.018	mg/L	0.050	0.010	EPA-353.2	0.018	J	6
Perchlorate	6.2	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/09/22 18:15	05/10/22 16:28		JRG	PE-OP4	1	B139254	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 17:31		RML	MET-1	1	B138202	No Prep
3	EPA-300.0	05/04/22 15:50	05/04/22 19:09		JAT	IC1	1	B138960	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 17:31		RML	MET-1	1	B138202	No Prep
5	EPA-160.1	05/06/22 13:00	05/06/22 13:00		CAD	MANUAL	3.333	B139045	No Prep
6	EPA-353.2	05/04/22 21:02	05/04/22 21:02		JAT	KONE-1	1	B139137	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 14:35		MKB	IC6	1	B139436	No Prep

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210373-03	Client Sample Name: NASA/JPL, MW-25-1, 5/3/2022 8:25:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00082	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.6	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	1.9	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	420	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 18:22		MKB	IC-4	1	B139226	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 23:09		AK1	PE-EL2	1	B139521	EPA 200.2
3	EPA-200.7	05/09/22 18:15	05/10/22 16:28		JRG	PE-OP4	1	B139254	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210373-04		Client Sample Name: NASA/JPL, MW-18-4, 5/3/2022 11:20:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
<b>Carbon tetrachloride</b>	<b>1.5</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.17</b>	<b>EPA-524.2</b>	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.67</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210373-04	Client Sample Name:	NASA/JPL, MW-18-4, 5/3/2022 11:20:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.23</b>	<b>EPA-524.2</b>	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
<b>Trichloroethene</b>	<b>0.77</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210373-04	<b>Client Sample Name:</b> NASA/JPL, MW-18-4, 5/3/2022 11:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	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)	96.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 02:56	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210373-04	Client Sample Name: NASA/JPL, MW-18-4, 5/3/2022 11:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	02:56	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210373-04	Client Sample Name: NASA/JPL, MW-18-4, 5/3/2022 11:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	0.029	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/11/22 06:00	05/11/22 10:03	ADC	MS-V16	1	B139272	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210373-04							
Client Sample Name:	NASA/JPL, MW-18-4, 5/3/2022 11:20:00AM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	42	mg/L	0.10	0.014	EPA-200.7	0.031		1
Total Recoverable Magnesium	11	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	31	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	1.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	210	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	170	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	11	mg/L	0.50	0.13	EPA-300.0	0.17		3
Nitrate as N	1.3	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	24	mg/L	1.0	0.14	EPA-300.0	0.22		3
pH	8.20	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	280	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	0.018	mg/L	0.050	0.010	EPA-353.2	0.018	J	6
Perchlorate	12	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/09/22 18:15	05/10/22 17:01		JRG	PE-OP4	1	B139254	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 17:40		RML	MET-1	1	B138202	No Prep
3	EPA-300.0	05/04/22 15:50	05/04/22 19:30		JAT	IC1	1	B138960	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 17:40		RML	MET-1	1	B138202	No Prep
5	EPA-160.1	05/06/22 13:00	05/06/22 13:00		CAD	MANUAL	2	B139045	No Prep
6	EPA-353.2	05/04/22 21:02	05/04/22 21:02		JAT	KONE-1	1	B139137	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 02:03		MKB	IC6	1	B139436	No Prep

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210373-04	Client Sample Name: NASA/JPL, MW-18-4, 5/3/2022 11:20:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0029	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	0.73	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	2.7	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	94	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 18:51		KB1	IC-4	1	B139226	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 23:10		AK1	PE-EL2	1	B139521	EPA 200.2
3	EPA-200.7	05/09/22 18:15	05/10/22 17:01		JRG	PE-OP4	1	B139254	EPA 200.2

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210373-05	<b>Client Sample Name:</b> NASA/JPL, MW-18-5, 5/3/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210373-05	<b>Client Sample Name:</b> NASA/JPL, MW-18-5, 5/3/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210373-05	Client Sample Name: NASA/JPL, MW-18-5, 5/3/2022 10:30:00AM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	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)	98.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 03:20	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210373-05	Client Sample Name: NASA/JPL, MW-18-5, 5/3/2022 10:30:00AM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	03:20	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/25/2022 17:44  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210373-05	<b>Client Sample Name:</b> NASA/JPL, MW-18-5, 5/3/2022 10:30:00AM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/11/22 06:00	05/11/22 10:29	ADC	MS-V16	1	B139272	EPA 524.2

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210373-05	Client Sample Name:	NASA/JPL, MW-18-5, 5/3/2022 10:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	4.4	mg/L	0.10	0.014	EPA-200.7	0.031		1	
Total Recoverable Magnesium	2.6	mg/L	0.050	0.019	EPA-200.7	ND		1	
Total Recoverable Sodium	51	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	1.1	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	120	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	14	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	120	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	9.4	mg/L	0.50	0.13	EPA-300.0	0.17		3	
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	2.9	mg/L	1.0	0.14	EPA-300.0	0.22		3	
pH	9.12	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	180	mg/L	10	5.0	EPA-160.1	ND		5	
Nitrite as N	0.019	mg/L	0.050	0.010	EPA-353.2	0.018	J	6	
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/09/22 18:15	05/10/22 17:04		JRG	PE-OP4	1	B139254	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 18:06		RML	MET-1	1	B138203	No Prep
3	EPA-300.0	05/04/22 15:50	05/04/22 19:51		JAT	IC1	1	B138960	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 18:06		RML	MET-1	1	B138203	No Prep
5	EPA-160.1	05/06/22 13:00	05/06/22 13:00		CAD	MANUAL	1	B139045	No Prep
6	EPA-353.2	05/04/22 21:02	05/04/22 21:02		JAT	KONE-1	1	B139137	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 02:18		MKB	IC6	1	B139436	No Prep

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210373-05	Client Sample Name: NASA/JPL, MW-18-5, 5/3/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00014	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	2.3	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 19:01		KB1	IC-4	1	B139226	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 23:12		AK1	PE-EL2	1	B139521	EPA 200.2
3	EPA-200.7	05/09/22 18:15	05/10/22 17:04		JRG	PE-OP4	1	B139254	EPA 200.2

DCN = Data Continuation Number





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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210373-06		Client Sample Name: NASA/JPL, MW-18-3, 5/3/2022 12:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210373-06		Client Sample Name: NASA/JPL, MW-18-3, 5/3/2022 12:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
<b>Trichlorofluoromethane</b>	<b>0.17</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210373-06	<b>Client Sample Name:</b> NASA/JPL, MW-18-3, 5/3/2022 12:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.9	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 03:45	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210373-06	Client Sample Name: NASA/JPL, MW-18-3, 5/3/2022 12:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	03:45	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210373-06	Client Sample Name: NASA/JPL, MW-18-3, 5/3/2022 12:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/11/22 06:00	05/11/22	11:22	ADC	MS-V16	1	B139272	EPA 524.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210373-06	Client Sample Name:	NASA/JPL, MW-18-3, 5/3/2022 12:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	60	mg/L	0.10	0.014	EPA-200.7	0.031		1	
Total Recoverable Magnesium	17	mg/L	0.050	0.019	EPA-200.7	ND		1	
Total Recoverable Sodium	22	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	2.8	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	260	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	220	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	20	mg/L	0.50	0.13	EPA-300.0	0.17		3	
Nitrate as N	0.82	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	39	mg/L	1.0	0.14	EPA-300.0	0.22		3	
pH	8.21	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	350	mg/L	20	10	EPA-160.1	ND	A10	5	
Nitrite as N	0.017	mg/L	0.050	0.010	EPA-353.2	0.018	J	6	
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/09/22 18:15	05/10/22 18:44		JRG	PE-OP4	1	B139254	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 18:21		RML	MET-1	1	B138203	No Prep
3	EPA-300.0	05/04/22 15:50	05/04/22 21:15		JAT	IC1	1	B138960	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 18:21		RML	MET-1	1	B138203	No Prep
5	EPA-160.1	05/06/22 13:00	05/06/22 13:00		CAD	MANUAL	2	B139045	No Prep
6	EPA-353.2	05/04/22 21:02	05/04/22 21:06		JAT	KONE-1	1	B139137	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 02:33		MKB	IC6	1	B139436	No Prep

DCN = Data Continuation Number

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210373-06	Client Sample Name: NASA/JPL, MW-18-3, 5/3/2022 12:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0019	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	0.92	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	2.0	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	49	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 19:10		KB1	IC-4	1	B139226	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 21:35		AK1	PE-EL4	1	B139522	EPA 200.2
3	EPA-200.7	05/09/22 18:15	05/10/22 18:44		JRG	PE-OP4	1	B139254	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210373-07      **Client Sample Name:** NASA/JPL, MW-18-2, 5/3/2022 1:20:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210373-07	Client Sample Name:	NASA/JPL, MW-18-2, 5/3/2022 1:20:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210373-07	Client Sample Name: NASA/JPL, MW-18-2, 5/3/2022 1:20:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 04:09	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210373-07	Client Sample Name: NASA/JPL, MW-18-2, 5/3/2022 1:20:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	04:09	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210373-07	Client Sample Name: NASA/JPL, MW-18-2, 5/3/2022 1:20:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/11/22 06:00	05/11/22	11:48	ADC	MS-V16	1	B139272	EPA 524.2

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210373-07							
Client Sample Name:	NASA/JPL, MW-18-2, 5/3/2022 1:20:00PM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	41	mg/L	0.10	0.014	EPA-200.7	0.031		1
Total Recoverable Magnesium	13	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	19	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	180	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	150	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	6.5	mg/L	0.50	0.13	EPA-300.0	0.17		3
Nitrate as N	0.20	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	23	mg/L	1.0	0.14	EPA-300.0	0.22		3
pH	8.00	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	220	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	0.018	mg/L	0.050	0.010	EPA-353.2	0.018	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/09/22 18:15	05/10/22 18:46		JRG	PE-OP4	1	B139254	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 18:29		RML	MET-1	1	B138203	No Prep
3	EPA-300.0	05/04/22 15:50	05/04/22 21:36		JAT	IC1	1	B138960	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 18:29		RML	MET-1	1	B138203	No Prep
5	EPA-160.1	05/06/22 13:00	05/06/22 13:00		CAD	MANUAL	2	B139045	No Prep
6	EPA-353.2	05/04/22 21:02	05/04/22 21:06		JAT	KONE-1	1	B139137	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 02:49		MKB	IC6	1	B139436	No Prep

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210373-07	Client Sample Name: NASA/JPL, MW-18-2, 5/3/2022 1:20:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00012	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	1.4	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	87	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 19:20		KB1	IC-4	1	B139226	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 21:37		AK1	PE-EL4	1	B139522	EPA 200.2
3	EPA-200.7	05/09/22 18:15	05/10/22 18:46		JRG	PE-OP4	1	B139254	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210373-08      **Client Sample Name:** NASA/JPL, MW-20-5, 5/3/2022 2:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210373-08      **Client Sample Name:** NASA/JPL, MW-20-5, 5/3/2022 2:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210373-08      **Client Sample Name:** NASA/JPL, MW-20-5, 5/3/2022 2:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	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)	96.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 04:34	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210373-08	Client Sample Name: NASA/JPL, MW-20-5, 5/3/2022 2:50:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	04:34	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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**Reported:** 05/25/2022 17:44  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210373-08	<b>Client Sample Name:</b> NASA/JPL, MW-20-5, 5/3/2022 2:50:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/11/22 06:00	05/11/22 12:14	ADC	MS-V16	1	B139272	EPA 524.2

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210373-08	Client Sample Name:	NASA/JPL, MW-20-5, 5/3/2022 2:50:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	5.9	mg/L	0.10	0.014	EPA-200.7	0.031		1
Total Recoverable Magnesium	2.1	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	48	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	1.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	130	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	8.8	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	120	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	7.7	mg/L	0.50	0.13	EPA-300.0	0.17		3
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	4.8	mg/L	1.0	0.14	EPA-300.0	0.22		3
pH	8.75	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	180	mg/L	10	5.0	EPA-160.1	ND		5
Nitrite as N	0.020	mg/L	0.050	0.010	EPA-353.2	0.018	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/09/22 18:15	05/10/22 17:10		JRG	PE-OP4	1	B139254	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 18:36		RML	MET-1	1	B138203	No Prep
3	EPA-300.0	05/04/22 15:50	05/04/22 21:57		JAT	IC1	1	B138960	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 18:36		RML	MET-1	1	B138203	No Prep
5	EPA-160.1	05/06/22 13:00	05/06/22 13:00		CAD	MANUAL	1	B139045	No Prep
6	EPA-353.2	05/04/22 21:02	05/04/22 21:06		JAT	KONE-1	1	B139137	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 03:04		MKB	IC6	1	B139436	No Prep

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2210373-08	<b>Client Sample Name:</b> NASA/JPL, MW-20-5, 5/3/2022 2:50:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00013	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	1.1	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	53	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 19:29		KB1	IC-4	1	B139226	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 21:39		AK1	PE-EL4	1	B139522	EPA 200.2
3	EPA-200.7	05/09/22 18:15	05/10/22 17:10		JRG	PE-OP4	1	B139254	EPA 200.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210373-09	<b>Client Sample Name:</b> NASA/JPL, MW-20-4, 5/3/2022 3:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210373-09	Client Sample Name:	NASA/JPL, MW-20-4, 5/3/2022 3:25:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210373-09	Client Sample Name: NASA/JPL, MW-20-4, 5/3/2022 3:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 04:58	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number





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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210373-09	Client Sample Name: NASA/JPL, MW-20-4, 5/3/2022 3:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	04:58	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 05/25/2022 17:44  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210373-09	<b>Client Sample Name:</b> NASA/JPL, MW-20-4, 5/3/2022 3:25:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/11/22 06:00	05/11/22	12:40	ADC	MS-V16	1	B139272	EPA 524.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210373-09	Client Sample Name:	NASA/JPL, MW-20-4, 5/3/2022 3:25:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	6.9	mg/L	0.10	0.014	EPA-200.7	0.031		1
Total Recoverable Magnesium	3.0	mg/L	0.050	0.019	EPA-200.7	ND		1
Total Recoverable Sodium	54	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	0.69	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate	130	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	11	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	130	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	9.5	mg/L	0.50	0.13	EPA-300.0	0.17		3
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	10	mg/L	1.0	0.14	EPA-300.0	0.22		3
pH	8.87	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	200	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	0.019	mg/L	0.050	0.010	EPA-353.2	0.018	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/09/22 18:15	05/10/22 17:13		JRG	PE-OP4	1	B139254	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 18:44		RML	MET-1	1	B138203	No Prep
3	EPA-300.0	05/04/22 15:50	05/04/22 22:18		JAT	IC1	1	B138960	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 18:44		RML	MET-1	1	B138203	No Prep
5	EPA-160.1	05/06/22 13:00	05/06/22 13:00		CAD	MANUAL	2	B139045	No Prep
6	EPA-353.2	05/04/22 21:02	05/04/22 21:06		JAT	KONE-1	1	B139137	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 03:20		MKB	IC6	1	B139436	No Prep

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210373-09	Client Sample Name: NASA/JPL, MW-20-4, 5/3/2022 3:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00015	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	1.3	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	37	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 20:08		KB1	IC-4	1	B139226	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 21:41		AK1	PE-EL4	1	B139522	EPA 200.2
3	EPA-200.7	05/09/22 18:15	05/10/22 17:13		JRG	PE-OP4	1	B139254	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210373-10	Client Sample Name:	NASA/JPL, EB-7-050322, 5/3/2022 3:35:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210373-10		Client Sample Name:	NASA/JPL, EB-7-050322, 5/3/2022 3:35:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
<b>Methylene chloride</b>	<b>0.23</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.21</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210373-10      **Client Sample Name:** NASA/JPL, EB-7-050322, 5/3/2022 3:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	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)	95.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 05:23	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210373-10	Client Sample Name: NASA/JPL, EB-7-050322, 5/3/2022 3:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	05:23	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number





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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210373-10	Client Sample Name: NASA/JPL, EB-7-050322, 5/3/2022 3:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/11/22 06:00	05/11/22	13:06	ADC	MS-V16	1	B139272	EPA 524.2

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210373-10	Client Sample Name:	NASA/JPL, EB-7-050322, 5/3/2022 3:35:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	0.075	mg/L	0.10	0.014	EPA-200.7	0.031	J	1
Total Recoverable Magnesium	0.022	mg/L	0.050	0.019	EPA-200.7	ND	J	1
Total Recoverable Sodium	0.27	mg/L	0.50	0.051	EPA-200.7	ND	J	1
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	ND	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	0.15	mg/L	0.50	0.13	EPA-300.0	0.17	J	3
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	0.21	mg/L	1.0	0.14	EPA-300.0	0.22	J	3
pH	6.37	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	3.3	mg/L	6.7	3.3	EPA-160.1	ND	J	5
Nitrite as N	0.016	mg/L	0.050	0.010	EPA-353.2	0.018	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/09/22 18:15	05/10/22 17:15		JRG	PE-OP4	1	B139254	EPA 200.2
2	SM-2320B	05/06/22 07:00	05/06/22 18:52		RML	MET-1	1	B138203	No Prep
3	EPA-300.0	05/04/22 15:50	05/04/22 20:54		JAT	IC1	1	B138960	No Prep
4	EPA-150.1	05/06/22 07:00	05/06/22 18:52		RML	MET-1	1	B138203	No Prep
5	EPA-160.1	05/06/22 13:00	05/06/22 13:00		CAD	MANUAL	0.667	B139045	No Prep
6	EPA-353.2	05/04/22 21:02	05/04/22 21:06		JAT	KONE-1	1	B139137	No Prep
7	EPA-314.0	05/11/22 19:00	05/12/22 03:35		MKB	IC6	1	B139436	No Prep

DCN = Data Continuation Number

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210373-10	Client Sample Name: NASA/JPL, EB-7-050322, 5/3/2022 3:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000084	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/09/22 14:00	05/09/22 20:17	KB1	IC-4	1	B139226	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 21:43	AK1	PE-EL4	1	B139522	EPA 200.2
3	EPA-200.7	05/09/22 18:15	05/10/22 17:15	JRG	PE-OP4	1	B139254	EPA 200.2

DCN = Data Continuation Number

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139140</b>						
Benzene	B139140-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B139140-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B139140-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B139140-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B139140-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B139140-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B139140-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B139140-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B139140-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B139140-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B139140-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B139140-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B139140-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B139140-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B139140-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B139140-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B139140-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B139140-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B139140-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B139140-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B139140-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B139140-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B139140-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B139140-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B139140-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B139140-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B139140-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B139140-BLK1	ND	ug/L	0.50	0.14	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139140</b>						
trans-1,3-Dichloropropene	B139140-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B139140-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B139140-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B139140-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B139140-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B139140-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B139140-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B139140-BLK1	ND	ug/L	0.50	0.12	
Styrene	B139140-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B139140-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B139140-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B139140-BLK1	ND	ug/L	0.50	0.23	
Toluene	B139140-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B139140-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B139140-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B139140-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B139140-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B139140-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B139140-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B139140-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B139140-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B139140-BLK1	ND	ug/L	0.50	0.18	
Acetone	B139140-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B139140-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B139140-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B139140-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B139140-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B139140-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B139140-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B139140-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B139140-BLK1	ND	ug/L	4.0	1.3	

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139140</b>						
Ethyl t-butyl ether	B139140-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B139140-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B139140-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B139140-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B139140-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B139140-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B139140-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B139140-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B139140-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B139140-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B139140-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B139140-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B139140-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B139140-BLK1</b>	<b>100</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B139140-BLK1</b>	<b>98.4</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B139140-BLK1</b>	<b>96.3</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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 Project Number: 2Q22  
 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: B139140</b>										
Benzene	B139140-BS1	LCS	23.440	25.000	ug/L	93.8		70 - 130		
Bromodichloromethane	B139140-BS1	LCS	24.350	25.000	ug/L	97.4		70 - 130		
Chlorobenzene	B139140-BS1	LCS	22.670	25.000	ug/L	90.7		70 - 130		
Chloroethane	B139140-BS1	LCS	24.740	25.000	ug/L	99.0		70 - 130		
1,4-Dichlorobenzene	B139140-BS1	LCS	22.600	25.000	ug/L	90.4		70 - 130		
1,1-Dichloroethane	B139140-BS1	LCS	24.320	25.000	ug/L	97.3		70 - 130		
1,1-Dichloroethene	B139140-BS1	LCS	25.970	25.000	ug/L	104		70 - 130		
Toluene	B139140-BS1	LCS	23.510	25.000	ug/L	94.0		70 - 130		
Trichloroethene	B139140-BS1	LCS	24.310	25.000	ug/L	97.2		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B139140-BS1	LCS	10.230	10.000	ug/L	102		75 - 125		
Toluene-d8 (Surrogate)	B139140-BS1	LCS	10.080	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	B139140-BS1	LCS	10.070	10.000	ug/L	101		80 - 120		

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139140</b>		Used client sample: N									
Benzene	MS	2210539-05	ND	23.980	25.000	ug/L		95.9		70 - 130	
	MSD	2210539-05	ND	23.740	25.000	ug/L	1.0	95.0	20	70 - 130	
Bromodichloromethane	MS	2210539-05	ND	25.250	25.000	ug/L		101		70 - 130	
	MSD	2210539-05	ND	25.440	25.000	ug/L	0.7	102	20	70 - 130	
Chlorobenzene	MS	2210539-05	ND	23.660	25.000	ug/L		94.6		70 - 130	
	MSD	2210539-05	ND	23.050	25.000	ug/L	2.6	92.2	20	70 - 130	
Chloroethane	MS	2210539-05	ND	24.750	25.000	ug/L		99.0		70 - 130	
	MSD	2210539-05	ND	24.710	25.000	ug/L	0.2	98.8	20	70 - 130	
1,4-Dichlorobenzene	MS	2210539-05	ND	22.990	25.000	ug/L		92.0		70 - 130	
	MSD	2210539-05	ND	22.580	25.000	ug/L	1.8	90.3	20	70 - 130	
1,1-Dichloroethane	MS	2210539-05	ND	24.880	25.000	ug/L		99.5		70 - 130	
	MSD	2210539-05	ND	24.690	25.000	ug/L	0.8	98.8	20	70 - 130	
1,1-Dichloroethene	MS	2210539-05	ND	26.450	25.000	ug/L		106		70 - 130	
	MSD	2210539-05	ND	26.130	25.000	ug/L	1.2	105	20	70 - 130	
Toluene	MS	2210539-05	ND	23.660	25.000	ug/L		94.6		70 - 130	
	MSD	2210539-05	ND	23.670	25.000	ug/L	0.0	94.7	20	70 - 130	
Trichloroethene	MS	2210539-05	ND	24.300	25.000	ug/L		97.2		70 - 130	
	MSD	2210539-05	ND	24.370	25.000	ug/L	0.3	97.5	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2210539-05	ND	10.050	10.000	ug/L		100		75 - 125	
	MSD	2210539-05	ND	9.9500	10.000	ug/L	1.0	99.5		75 - 125	
Toluene-d8 (Surrogate)	MS	2210539-05	ND	10.000	10.000	ug/L		100		80 - 120	
	MSD	2210539-05	ND	10.000	10.000	ug/L	0	100		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2210539-05	ND	9.9200	10.000	ug/L		99.2		80 - 120	
	MSD	2210539-05	ND	9.8700	10.000	ug/L	0.5	98.7		80 - 120	

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 Powell, OH 43065

Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139140</b>						
Nitrobenzene	B139140-BLK1	0	ug/L			
Methyl acrylate	B139140-BLK1	0	ug/L			
Chloroacetonitrile	B139140-BLK1	0	ug/L			
2-Nitropropane	B139140-BLK1	0	ug/L			
1-Chlorobutane	B139140-BLK1	0	ug/L			
1,1-Dichloropropanone	B139140-BLK1	0	ug/L			

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**Reported:** 05/25/2022 17:44  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B139272</b>						
1,2,3-Trichloropropane	B139272-BLK1	ND	ug/L	0.0050	0.0010	

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### 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: B139272</b>										
1,2,3-Trichloropropane	B139272-BS1	LCS	0.052540	0.050000	ug/L	105		80 - 120		

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139272</b>		Used client sample: N									
1,2,3-Trichloropropane	MS	2210682-07	ND	0.057980	0.050000	ug/L		116		70 - 130	
	MSD	2210682-07	ND	0.047530	0.050000	ug/L	19.8	95.1	30	70 - 130	

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
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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: B138202</b>						
Bicarbonate	B138202-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138202-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138202-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138203</b>						
Bicarbonate	B138203-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138203-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138203-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138960</b>						
Chloride	B138960-BLK1	0.17300	mg/L	0.50	0.13	J
Nitrate as N	B138960-BLK1	ND	mg/L	0.10	0.024	
Sulfate	B138960-BLK1	0.21600	mg/L	1.0	0.14	J
<b>QC Batch ID: B139045</b>						
Total Dissolved Solids @ 180 C	B139045-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B139137</b>						
Nitrite as N	B139137-BLK1	0.017736	mg/L	0.050	0.010	J
<b>QC Batch ID: B139254</b>						
Total Recoverable Calcium	B139254-BLK1	0.030996	mg/L	0.10	0.014	J
Total Recoverable Magnesium	B139254-BLK1	ND	mg/L	0.050	0.019	
Total Recoverable Sodium	B139254-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B139254-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B139436</b>						
Perchlorate	B139436-BLK1	ND	ug/L	2.0	0.81	

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B138202</b>										
Total Alkalinity as CaCO3	B138202-BS3	LCS	100.59	100.00	mg/L	101		90 - 110		
pH	B138202-BS2	LCS	7.0200	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B138203</b>										
Total Alkalinity as CaCO3	B138203-BS3	LCS	100.74	100.00	mg/L	101		90 - 110		
pH	B138203-BS2	LCS	7.0200	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B138960</b>										
Chloride	B138960-BS1	LCS	50.291	50.000	mg/L	101		90 - 110		
Nitrate as N	B138960-BS1	LCS	4.9880	5.0000	mg/L	99.8		90 - 110		
Sulfate	B138960-BS1	LCS	99.846	100.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B139045</b>										
Total Dissolved Solids @ 180 C	B139045-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
	B139045-BSD1	LCSD	595.00	586.00	mg/L	102	0	90 - 110	200	
<b>QC Batch ID: B139137</b>										
Nitrite as N	B139137-BS1	LCS	0.50734	0.50000	mg/L	101		90 - 110		
<b>QC Batch ID: B139254</b>										
Total Recoverable Calcium	B139254-BS1	LCS	9.2568	10.000	mg/L	92.6		85 - 115		
Total Recoverable Magnesium	B139254-BS1	LCS	9.2144	10.000	mg/L	92.1		85 - 115		
Total Recoverable Sodium	B139254-BS1	LCS	9.0034	10.000	mg/L	90.0		85 - 115		
Total Recoverable Potassium	B139254-BS1	LCS	9.0001	10.000	mg/L	90.0		85 - 115		
<b>QC Batch ID: B139436</b>										
Perchlorate	B139436-BS1	LCS	9.1741	10.000	ug/L	91.7		85 - 115		

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Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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		
								Percent Recovery	RPD	Percent Recovery
<b>QC Batch ID: B138202</b>		Used client sample: N								
Bicarbonate	DUP	2210517-01	585.77	588.33		mg/L	0.4		10	
Carbonate	DUP	2210517-01	ND	ND		mg/L			10	
Total Alkalinity as CaCO3	DUP	2210517-01	480.42	482.52		mg/L	0.4		10	
pH	DUP	2210517-01	7.7400	7.7600		pH Units	0.3		20	
<b>QC Batch ID: B138203</b>		Used client sample: Y - Description: MW-18-5, 05/03/2022 10:30								
Bicarbonate	DUP	2210373-05	120.27	118.61		mg/L	1.4		10	
Carbonate	DUP	2210373-05	14.042	15.301		mg/L	8.6		10	
Total Alkalinity as CaCO3	DUP	2210373-05	122.06	122.81		mg/L	0.6		10	
pH	DUP	2210373-05	9.1200	9.1200		pH Units	0		20	
<b>QC Batch ID: B138960</b>		Used client sample: Y - Description: MW-25-2, 05/03/2022 07:55								
Chloride	DUP	2210373-02	52.947	52.991		mg/L	0.1		10	
	MS	2210373-02	52.947	106.80	50.505	mg/L		107		80 - 120
	MSD	2210373-02	52.947	106.83	50.505	mg/L	0.0	107	10	80 - 120
Nitrate as N	DUP	2210373-02	8.7680	8.8000		mg/L	0.4		10	
	MS	2210373-02	8.7680	13.898	5.0505	mg/L		102		80 - 120
	MSD	2210373-02	8.7680	13.892	5.0505	mg/L	0.0	101	10	80 - 120
Sulfate	DUP	2210373-02	88.239	88.333		mg/L	0.1		10	
	MS	2210373-02	88.239	196.80	101.01	mg/L		107		80 - 120
	MSD	2210373-02	88.239	197.17	101.01	mg/L	0.2	108	10	80 - 120
<b>QC Batch ID: B139045</b>		Used client sample: Y - Description: MW-25-2, 05/03/2022 07:55								
Total Dissolved Solids @ 180 C	DUP	2210373-02	496.66	500.00		mg/L	0.7		10	
<b>QC Batch ID: B139137</b>		Used client sample: Y - Description: MW-18-4, 05/03/2022 11:20								
Nitrite as N	DUP	2210373-04	0.017813	0.017707		mg/L	0.6		10	J
	MS	2210373-04	0.017813	0.53341	0.52632	mg/L		98.0		90 - 110
	MSD	2210373-04	0.017813	0.53486	0.52632	mg/L	0.3	98.2	10	90 - 110
<b>QC Batch ID: B139254</b>		Used client sample: Y - Description: MW-25-2, 05/03/2022 07:55								
Total Recoverable Calcium	DUP	2210373-02	80.614	87.238		mg/L	7.9		20	
	MS	2210373-02	80.614	99.639	10.000	mg/L		190		75 - 125 A03
	MSD	2210373-02	80.614	92.304	10.000	mg/L	7.6	117	20	75 - 125
Total Recoverable Magnesium	DUP	2210373-02	25.310	27.238		mg/L	7.3		20	
	MS	2210373-02	25.310	37.749	10.000	mg/L		124		75 - 125
	MSD	2210373-02	25.310	35.392	10.000	mg/L	6.4	101	20	75 - 125
Total Recoverable Sodium	DUP	2210373-02	29.927	32.299		mg/L	7.6		20	
	MS	2210373-02	29.927	43.142	10.000	mg/L		132		75 - 125 Q03
	MSD	2210373-02	29.927	40.229	10.000	mg/L	7.0	103	20	75 - 125

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139254</b>		Used client sample: Y - Description: MW-25-2, 05/03/2022 07:55									
Total Recoverable Potassium	DUP	2210373-02	2.3915	2.5779		mg/L	7.5		20		
	MS	2210373-02	2.3915	12.643	10.000	mg/L		103		75 - 125	
	MSD	2210373-02	2.3915	12.337	10.000	mg/L	2.5	99.5	20	75 - 125	
<b>QC Batch ID: B139436</b>		Used client sample: N									
Perchlorate	DUP	2210193-10	8.1750	8.2139		ug/L	0.5		15		
	MS	2210193-10	8.1750	16.541	10.101	ug/L		82.8		80 - 120	
	MSD	2210193-10	8.1750	16.318	10.101	ug/L	1.4	80.6	15	80 - 120	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139226</b>						
Hexavalent Chromium	B139226-BLK1	ND	mg/L	0.00020	0.000020	
<b>QC Batch ID: B139254</b>						
Total Recoverable Iron	B139254-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B139521</b>						
Total Recoverable Arsenic	B139521-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B139521-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B139521-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B139522</b>						
Total Recoverable Arsenic	B139522-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B139522-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B139522-BLK1	ND	ug/L	1.0	0.10	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139226</b>										
Hexavalent Chromium	B139226-BS1	LCS	0.019895	0.020000	mg/L	99.5		90 - 110		
<b>QC Batch ID: B139254</b>										
Total Recoverable Iron	B139254-BS1	LCS	918.51	1000.0	ug/L	91.9		85 - 115		
<b>QC Batch ID: B139521</b>										
Total Recoverable Arsenic	B139521-BS1	LCS	97.117	100.00	ug/L	97.1		85 - 115		
	B139521-BSD1	LCSD	98.571	100.00	ug/L	98.6	1.5	85 - 115	20	
Total Recoverable Chromium	B139521-BS1	LCS	38.938	40.000	ug/L	97.3		85 - 115		
	B139521-BSD1	LCSD	39.511	40.000	ug/L	98.8	1.5	85 - 115	20	
Total Recoverable Lead	B139521-BS1	LCS	100.30	100.00	ug/L	100		85 - 115		
	B139521-BSD1	LCSD	97.756	100.00	ug/L	97.8	2.6	85 - 115	20	
<b>QC Batch ID: B139522</b>										
Total Recoverable Arsenic	B139522-BS1	LCS	103.63	100.00	ug/L	104		85 - 115		
	B139522-BSD1	LCSD	109.06	100.00	ug/L	109	5.1	85 - 115	20	
Total Recoverable Chromium	B139522-BS1	LCS	38.800	40.000	ug/L	97.0		85 - 115		
	B139522-BSD1	LCSD	40.860	40.000	ug/L	102	5.2	85 - 115	20	
Total Recoverable Lead	B139522-BS1	LCS	100.81	100.00	ug/L	101		85 - 115		
	B139522-BSD1	LCSD	105.08	100.00	ug/L	105	4.1	85 - 115	20	

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Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 05/25/2022 17:44  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B139226</b>		Used client sample: Y - Description: MW-20-5, 05/03/2022 14:50									
Hexavalent Chromium	DUP	2210373-08	0.00012900	0.00012400		mg/L	4.0		10		J
	MS	2210373-08	0.00012900	0.020215	0.020202	mg/L		99.4		90 - 110	
	MSD	2210373-08	0.00012900	0.020363	0.020202	mg/L	0.7	100	10	90 - 110	
<b>QC Batch ID: B139254</b>		Used client sample: Y - Description: MW-25-2, 05/03/2022 07:55									
Total Recoverable Iron	DUP	2210373-02	ND	ND		ug/L			20		
	MS	2210373-02	ND	1038.4	1000.0	ug/L		104		75 - 125	
	MSD	2210373-02	ND	1017.5	1000.0	ug/L	2.0	102	20	75 - 125	
<b>QC Batch ID: B139521</b>		Used client sample: N									
Total Recoverable Arsenic	DUP	2210539-05	ND	0.97300		ug/L			20		J
	MS	2210539-05	ND	109.72	100.00	ug/L		110		70 - 130	
	MSD	2210539-05	ND	102.20	100.00	ug/L	7.1	102	20	70 - 130	
Total Recoverable Chromium	DUP	2210539-05	ND	ND		ug/L			20		
	MS	2210539-05	ND	39.651	40.000	ug/L		99.1		70 - 130	
	MSD	2210539-05	ND	38.632	40.000	ug/L	2.6	96.6	20	70 - 130	
Total Recoverable Lead	DUP	2210539-05	ND	ND		ug/L			20		
	MS	2210539-05	ND	104.00	100.00	ug/L		104		70 - 130	
	MSD	2210539-05	ND	97.195	100.00	ug/L	6.8	97.2	20	70 - 130	
<b>QC Batch ID: B139522</b>		Used client sample: N									
Total Recoverable Arsenic	DUP	2210682-01	1.3950	1.0530		ug/L	27.9		20		J,A02
	MS	2210682-01	1.3950	114.30	100.00	ug/L		113		70 - 130	
	MSD	2210682-01	1.3950	114.75	100.00	ug/L	0.4	113	20	70 - 130	
Total Recoverable Chromium	DUP	2210682-01	ND	0.52000		ug/L			20		J
	MS	2210682-01	ND	39.814	40.000	ug/L		99.5		70 - 130	
	MSD	2210682-01	ND	40.090	40.000	ug/L	0.7	100	20	70 - 130	
Total Recoverable Lead	DUP	2210682-01	ND	ND		ug/L			20		
	MS	2210682-01	ND	104.56	100.00	ug/L		105		70 - 130	
	MSD	2210682-01	ND	101.97	100.00	ug/L	2.5	102	20	70 - 130	

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Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 05/25/2022 17:44  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration was more than 4 times the spike level.
- A10 Detection and quantitation limits were raised due to matrix interference.
- Q03 Matrix spike recovery(s) was(were) not within the control limits.
- S05 The sample holding time was exceeded.
- V11 The Continuing Calibration Verification (CCV) recovery was not within established control limits.



Date of Report: 06/24/2022

David Conner

Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

Client Project: 2Q22  
BCL Project: JPL- GW Monitoring Wells-CLP  
BCL Work Order: 2210539  
Invoice ID: B449953

Enclosed are the results of analyses for samples received by the laboratory on 5/4/2022. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1001310229

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Operations Manager

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 2210539

\*\*\*Fe 2210539-04 added per coc request, revised report generated.





Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Case Narrative

### Sample Receipt

COC Number:

Samples received refrigerated to 1.1 °C

### Sample List

Lab Number	Date/Time Sampled	Sample Name
2210539-01	05/04/2022 07:00	TB-8-050422
2210539-02	05/04/2022 08:25	MW-17-5
2210539-03	05/04/2022 08:57	MW-17-4
2210539-04	05/04/2022 10:10	MW-17-3
2210539-05	05/04/2022 12:05	MW-17-2
2210539-06	05/04/2022 13:05	MW-17-1
2210539-07	05/04/2022 13:45	EB-8-050422

### Requested Analysis

Calc, EPA-150.1, EPA-160.1, EPA-200.7 (TRM), EPA-200.8 (TRM), EPA-218.6, EPA-300.0, EPA-314.0, EPA-353.2, EPA-524.2, EPA-8270C, SM-2320B, SRL 524M

Sample	Analyte	Flag
<b>Sample Qualifier Summary</b>		
2210539-01	EPA-524.2 Pentachloroethane	V11
2210539-02	EPA-160.1 Total Dissolved Solids @ 180 C	A10
2210539-02	EPA-524.2 Pentachloroethane	V11
2210539-03	EPA-160.1 Total Dissolved Solids @ 180 C	A10
2210539-03	EPA-524.2 Pentachloroethane	V11
2210539-04	EPA-160.1 Total Dissolved Solids @ 180 C	A10
2210539-04	EPA-524.2 Pentachloroethane	V11
2210539-05	EPA-160.1 Total Dissolved Solids @ 180 C	A10
2210539-05	EPA-524.2 Pentachloroethane	V11
2210539-06	EPA-160.1 Total Dissolved Solids @ 180 C	A10
2210539-06	EPA-524.2 Pentachloroethane	V11
2210539-07	EPA-524.2 Pentachloroethane	V11

### Holding Times

2210539-02	EPA-150.1	pH	S05
2210539-03	EPA-150.1	pH	S05
2210539-04	EPA-150.1	pH	S05
2210539-05	EPA-150.1	pH	S05
2210539-06	EPA-150.1	pH	S05
2210539-07	EPA-150.1	pH	S05

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Case Narrative

<u>Sample</u>		<u>Analyte</u>	<u>Flag</u>
<b>Method Blanks</b>			
B138979-BLK1	EPA-300.0	Chloride	0.24100 mg/L
B138979-BLK1	EPA-300.0	Nitrate as N	0.034000 mg/L
B138979-BLK1	EPA-300.0	Sulfate	0.33700 mg/L
B139140-BLK1	EPA-524.2	1,1-Dichloropropanone	0 ug/L
B139140-BLK1	EPA-524.2	1-Chlorobutane	0 ug/L
B139140-BLK1	EPA-524.2	2-Nitropropane	0 ug/L
B139140-BLK1	EPA-524.2	Chloroacetonitrile	0 ug/L
B139140-BLK1	EPA-524.2	Methyl acrylate	0 ug/L
B139140-BLK1	EPA-524.2	Nitrobenzene	0 ug/L
B139303-BLK1	EPA-353.2	Nitrite as N	0.010360 mg/L
B139453-BLK1	EPA-200.7 (TRM)	Total Recoverable Calcium	0.037294 mg/L
B139453-BLK1	EPA-200.7 (TRM)	Total Recoverable Magnesium	0.031326 mg/L

### Matrix Spikes

B138206-DUP1	SM-2320B	Bicarbonate	A10
B138206-DUP1	SM-2320B	Carbonate	A10
B138206-DUP1	SM-2320B	Total Alkalinity as CaCO3	A10
B138979-MSD1	EPA-300.0	Nitrate as N	Q02
B138979-MSD1	EPA-300.0	Sulfate	Q02

### LCS

The LCS recoveries are within QC limits.

### Discussion

#### Summary of Flags

A10	Detection and quantitation limits were raised due to matrix interference.
Q02	Matrix spike precision is not within the control limits.
S05	The sample holding time was exceeded.
V11	The Continuing Calibration Verification (CCV) recovery was not within established control limits.

# Chain of Custody Form

Report To: **Tidewater, Inc.** 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.pacelabs.com

Project #: **JPL-GW Monitoring** Analysis Requested

Client: **David Conner** Project Name: **2Q22**

Attn: **David Conner** Project Name: **2Q22**

Street Address: **3761 Attucks Drive** BID#

City, State, Zip: **Powell, OH 43065** Sampler(s) Name: **Blaine Tech**

Phone: **626-298-5715** Fax: **614-792-2897**

Email: **david.conner@tideh2o.net**

Work Order #: **11-10539**

Sample #	Description	Date Sampled	Time Sampled	TRM: Cr, Pb, As, Ca, Mg, K,	Na, Fe	Hexavalent Cr6 -218.6 (mg/L)	Cl, NO3, NO2, SO4, Perch.	CO3, HCO3, Alk., TDS, pH	Orthophosphate 365.1	1,4 Dioxane 8270SIM	NDMA 1625M	Low-level 1,2,3-TCP	Comments:
-1	IB-8-050422	5/14/22	0700	X	X	X	X	X	X	X	X	X	
-2	MW-17-5	5/14/22	0825	X	X	X	X	X	X	X	X	X	
-3	MW-17-4	5/14/22	0857	X	X	X	X	X	X	X	X	X	level four
-4	MW-17-3	5/14/22	1010	X	X	X	X	X	X	X	X	X	
-5	MW-17-2	5/14/22	1205	X	X	X	X	X	X	X	X	X	MS/MSP
-6	MW-17-1	5/14/22	1305	X	X	X	X	X	X	X	X	X	
-7	EB-8-050422	5/14/22	1345	X	X	X	X	X	X	X	X	X	

Result Request:  STD  5 Day  4 Day  3 Day  2 Day  1 Day

Rush requests must be approved

Sample Matrix:  Waste Water  Ground Water  Drinking Water  Sludge  Soil  Other

Notes: level four, MS/MSP

EDF Required Geotracker:  Yes  No

Global ID

1. Retrieved By: **David Conner** Date: **5-14-22** Time: **1515**

2. Retrieved By: **Hecker Bacon** Date: **5-14-22** Time: **3120**

3. Retrieved By: **Hecker Bacon** Date: **5-14-22** Time: **1635**

GISKey  Well Star

Pace Analytical Bakersfield does not accept samples containing radioactive material above background levels. Samples containing radioactive material must be disclosed prior to receipt. Any samples suspected of containing radioactive material above background levels will not be accepted and will be returned to client.

REV 12/2021

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BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>1</u> Of <u>2</u>	
Submission #: <u>22-10539</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> <u>W</u> / S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>274</u>		Date/Time: <u>5/14/22 1845</u>	
		Temperature: (A) <u>1.5</u> °C / (C) <u>1.3</u> °C		Analyst Init: <u>PBE</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		G								
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>		F								
QT INORGANIC CHEMICAL METALS		H								
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz		UNP								
PT CYANIDE		STPA								
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
46ml VOA VIAL TRAVEL BLANK	A									
46ml VOA VIAL		D-F	D-F	D-F	B-L	D-F	D-F			
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL Amber VAP.		A-C	A-C	A-C	A-F	A-C	A-C			
QT EPA 508/508.3/3081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8170C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: CMS Date/Time: 5/15/22 0849 Rev 22 04/13/21

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>2</u> Of <u>2</u>	
Submission #: <u>22-10539</u>					
SHIPPING INFORMATION			SHIPPING CONTAINER		FREE LIQUID
Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <input type="checkbox"/> Hand Delivery <input type="checkbox"/>			Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/>		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify): _____			Other <input type="checkbox"/> (Specify): _____		<u>(W) / S</u>
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____					
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>VOA</u> Thermometer ID: <u>274</u>		Date/Time <u>5/14/22 1245</u>	
		Temperature: (A) <u>1.0</u> °C / (C) <u>1.1</u> °C		Analyst Init <u>PRE</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		G	G	G	M,N	G	G			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>		I	I	I	G,P	I	I			
QT INORGANIC CHEMICAL METALS		H	H	H	O,P	H	H			
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 515.2										
QT EPA 515.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.1										
QT EPA 8015M										
QT EPA 8279C										
3oz / 16oz <u>32oz</u> AMBER				J,K						
3oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEFLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: PRE Date/Time: 5/13/22 0849 Rev 22 06/13/21



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 06/24/2022 11:41  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information					
2210539-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/04/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/04/2022 07:00		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	TB-8-050422	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Trip Blank		
			Delivery Work Order:			
			Global ID:	0000000000		
			Location ID (FieldPoint):	TB-8-050422		
			Matrix:	WG		
			Sample QC Type (SACode):	CS		
		Cooler ID:				
2210539-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/04/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/04/2022 08:25		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-17-5	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
			Delivery Work Order:			
			Global ID:	0000000000		
			Location ID (FieldPoint):	MW-17-5		
			Matrix:	WG		
			Sample QC Type (SACode):	CS		
		Cooler ID:				
2210539-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/04/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/04/2022 08:57		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-17-4	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
			Delivery Work Order:			
			Global ID:	0000000000		
			Location ID (FieldPoint):	MW-17-4		
			Matrix:	WG		
			Sample QC Type (SACode):	CS		
		Cooler ID:				

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 06/24/2022 11:41  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information					
2210539-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/04/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/04/2022 10:10		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-17-3	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): MW-17-3					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						
2210539-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/04/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/04/2022 12:05		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-17-2	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): MW-17-2					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						
2210539-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/04/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/04/2022 13:05		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-17-1	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): MW-17-1					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						

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Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 06/24/2022 11:41  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

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

<b>2210539-07</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 05/04/2022 18:45
	<b>Project Number:</b> NASA/JPL	<b>Sampling Date:</b> 05/04/2022 13:45
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> EB-8-050422	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTST	<b>Sample Type:</b> Blank Water
		Delivery Work Order:
		Global ID: 0000000000
		Location ID (FieldPoint): EB-8-050422
		Matrix: WG
		Sample QC Type (SACode): CS
		Cooler ID:

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210539-01	Client Sample Name:	NASA/JPL, TB-8-050422, 5/4/2022 7:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210539-01	Client Sample Name:	NASA/JPL, TB-8-050422, 5/4/2022 7:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210539-01	Client Sample Name: NASA/JPL, TB-8-050422, 5/4/2022 7:00:00AM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/09/22 23:17	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210539-01	Client Sample Name: NASA/JPL, TB-8-050422, 5/4/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/09/22	23:17	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210539-02	Client Sample Name:	NASA/JPL, MW-17-5, 5/4/2022 8:25:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>1.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210539-02	Client Sample Name:	NASA/JPL, MW-17-5, 5/4/2022 8:25:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>1.0</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		<b>1</b>
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>1.1</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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 Powell, OH 43065

Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210539-02      **Client Sample Name:** NASA/JPL, MW-17-5, 5/4/2022 8:25:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.2	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/09/22 23:41	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/24/2022 11:41  
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 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210539-02	Client Sample Name: NASA/JPL, MW-17-5, 5/4/2022 8:25:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/09/22	23:41	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number





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**Reported:** 06/24/2022 11:41  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210539-02	<b>Client Sample Name:</b> NASA/JPL, MW-17-5, 5/4/2022 8:25:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 07:00	ADC	MS-V16	1	B139164	EPA 524.2

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID: 2210539-02	Client Sample Name: NASA/JPL, MW-17-5, 5/4/2022 8:25:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	60	mg/L	0.10	0.014	EPA-200.7	0.037		1
Total Recoverable Magnesium	17	mg/L	0.050	0.019	EPA-200.7	0.031		1
Total Recoverable Sodium	50	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO3	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	53	mg/L	0.50	0.13	EPA-300.0	0.24		3
Nitrate as N	8.1	mg/L	0.10	0.024	EPA-300.0	0.034		3
pH	8.30	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	430	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	0.010	J	6
Perchlorate	3.7	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/11/22 18:00	05/13/22 13:35		AK1	PE-OP4	1	B139453	EPA 200.2
2	SM-2320B	05/09/22 07:00	05/09/22 18:16		RML	MET-1	1	B138206	No Prep
3	EPA-300.0	05/05/22 13:00	05/05/22 15:32		MKB	IC5	1	B138979	No Prep
4	EPA-150.1	05/09/22 07:00	05/09/22 18:16		RML	MET-1	1	B138206	No Prep
5	EPA-160.1	05/09/22 15:00	05/09/22 15:00		CAD	MANUAL	3.333	B139236	No Prep
6	EPA-353.2	05/05/22 19:08	05/05/22 19:19		KB1	KONE-1	1	B139303	No Prep
7	EPA-314.0	05/12/22 22:00	05/13/22 00:59		MKB	IC6	1	B139677	No Prep

DCN = Data Continuation Number



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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210539-02	Client Sample Name: NASA/JPL, MW-17-5, 5/4/2022 8:25:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0013	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.8	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	1.4	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	160	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	0.13	ug/L	1.0	0.10	EPA-200.8	ND	J	2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/13/22 20:00	05/13/22 22:01		JAT	IC-4	1	B139227	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 23:14		AK1	PE-EL2	1	B139521	EPA 200.2
3	EPA-200.7	05/11/22 18:00	05/13/22 13:35		AK1	PE-OP4	1	B139453	EPA 200.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210539-03	Client Sample Name:	NASA/JPL, MW-17-4, 5/4/2022 8:57:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>0.56</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210539-03	Client Sample Name:	NASA/JPL, MW-17-4, 5/4/2022 8:57:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.37</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.38</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210539-03	Client Sample Name: NASA/JPL, MW-17-4, 5/4/2022 8:57:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	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)	97.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 00:06	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210539-03	Client Sample Name: NASA/JPL, MW-17-4, 5/4/2022 8:57:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	00:06	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 06/24/2022 11:41  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210539-03	<b>Client Sample Name:</b> NASA/JPL, MW-17-4, 5/4/2022 8:57:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 07:27	ADC	MS-V16	1	B139164	EPA 524.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## 1,4-Dioxane (EPA Method 8270C)

BCL Sample ID: 2210539-03	Client Sample Name: NASA/JPL, MW-17-4, 5/4/2022 8:57:00AM							
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,4-Dioxane	ND	ug/L	1.0	0.27	EPA-8270C	ND		1
Naphthalene-d8 (Surrogate)	78.6	%	70 - 130 (LCL - UCL)		EPA-8270C			1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-8270C	05/05/22 10:15	05/13/22	08:54	OLH	MS-B4	0.980	B139528	EPA 3510C

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210539-03	Client Sample Name:	NASA/JPL, MW-17-4, 5/4/2022 8:57:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	68	mg/L	0.10	0.014	EPA-200.7	0.037		1
Total Recoverable Magnesium	18	mg/L	0.050	0.019	EPA-200.7	0.031		1
Total Recoverable Sodium	49	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	250	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	200	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	55	mg/L	0.50	0.13	EPA-300.0	0.24		3
Nitrate as N	8.7	mg/L	0.10	0.024	EPA-300.0	0.034		3
Sulfate	63	mg/L	1.0	0.14	EPA-300.0	0.34		3
pH	8.25	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	450	mg/L	33	17	EPA-160.1	ND	A10	5
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	0.010	J	6
Perchlorate	4.1	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/11/22 18:00	05/13/22 14:32		AK1	PE-OP4	1	B139453	EPA 200.2
2	SM-2320B	05/09/22 07:00	05/09/22 18:27		RML	MET-1	1	B138206	No Prep
3	EPA-300.0	05/05/22 13:00	05/05/22 15:50		MKB	IC5	1	B138979	No Prep
4	EPA-150.1	05/09/22 07:00	05/09/22 18:27		RML	MET-1	1	B138206	No Prep
5	EPA-160.1	05/09/22 15:00	05/09/22 15:00		CAD	MANUAL	3.333	B139236	No Prep
6	EPA-353.2	05/05/22 19:08	05/05/22 19:19		KB1	KONE-1	1	B139303	No Prep
7	EPA-314.0	05/12/22 22:00	05/13/22 01:14		MKB	IC6	1	B139677	No Prep

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210539-03	Client Sample Name: NASA/JPL, MW-17-4, 5/4/2022 8:57:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0021	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	2.4	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	1.8	ug/L	3.0	0.50	EPA-200.8	ND	J	2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/13/22 20:00	05/13/22 22:11		JAT	IC-4	1	B139227	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 23:15		AK1	PE-EL2	1	B139521	EPA 200.2
3	EPA-200.7	05/11/22 18:00	05/13/22 14:32		AK1	PE-OP4	1	B139453	EPA 200.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210539-04	Client Sample Name:	NASA/JPL, MW-17-3, 5/4/2022 10:10:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210539-04	Client Sample Name:	NASA/JPL, MW-17-3, 5/4/2022 10:10:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.23</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>	
<b>Toluene</b>	<b>0.25</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.17</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
<b>Trichloroethene</b>	<b>1.7</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210539-04	Client Sample Name: NASA/JPL, MW-17-3, 5/4/2022 10:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 00:30	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210539-04	Client Sample Name: NASA/JPL, MW-17-3, 5/4/2022 10:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	00:30	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 06/24/2022 11:41  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210539-04	<b>Client Sample Name:</b> NASA/JPL, MW-17-3, 5/4/2022 10:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 07:53	ADC	MS-V16	1	B139164	EPA 524.2

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210539-04	Client Sample Name:	NASA/JPL, MW-17-3, 5/4/2022 10:10:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	39	mg/L	0.10	0.014	EPA-200.7	0.037		1	
Total Recoverable Magnesium	32	mg/L	0.050	0.019	EPA-200.7	0.031		1	
Total Recoverable Sodium	31	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	3.0	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	160	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	4.5	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	140	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	55	mg/L	0.50	0.13	EPA-300.0	0.24		3	
Nitrate as N	0.058	mg/L	0.10	0.024	EPA-300.0	0.034	J	3	
Sulfate	79	mg/L	1.0	0.14	EPA-300.0	0.34		3	
pH	8.43	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	360	mg/L	20	10	EPA-160.1	ND	A10	5	
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	0.010	J	6	
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/11/22 18:00	05/13/22 14:40		AK1	PE-OP4	1	B139453	EPA 200.2
2	SM-2320B	05/09/22 07:00	05/09/22 18:37		RML	MET-1	1	B138206	No Prep
3	EPA-300.0	05/05/22 13:00	05/05/22 16:07		MKB	IC5	1	B138979	No Prep
4	EPA-150.1	05/09/22 07:00	05/09/22 18:37		RML	MET-1	1	B138206	No Prep
5	EPA-160.1	05/09/22 15:00	05/09/22 15:00		CAD	MANUAL	2	B139236	No Prep
6	EPA-353.2	05/05/22 19:08	05/05/22 19:19		KB1	KONE-1	1	B139303	No Prep
7	EPA-314.0	05/12/22 22:00	05/13/22 02:00		MKB	IC6	1	B139677	No Prep

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2210539-04	<b>Client Sample Name:</b> NASA/JPL, MW-17-3, 5/4/2022 10:10:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000021	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	200	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/13/22 20:00	05/13/22 22:20		JAT	IC-4	1	B139227	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 23:17		AK1	PE-EL2	1	B139521	EPA 200.2
3	EPA-200.7	05/11/22 18:00	05/13/22 14:40		AK1	PE-OP4	1	B139453	EPA 200.2

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210539-05		Client Sample Name: NASA/JPL, MW-17-2, 5/4/2022 12:05:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210539-05      **Client Sample Name:** NASA/JPL, MW-17-2, 5/4/2022 12:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210539-05	<b>Client Sample Name:</b> NASA/JPL, MW-17-2, 5/4/2022 12:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/09/22 20:50	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210539-05	Client Sample Name: NASA/JPL, MW-17-2, 5/4/2022 12:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/09/22	20:50	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 06/24/2022 11:41  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210539-05	<b>Client Sample Name:</b> NASA/JPL, MW-17-2, 5/4/2022 12:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 14:26	ADC	MS-V16	1	B139164	EPA 524.2

DCN = Data Continuation Number

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210539-05	Client Sample Name:	NASA/JPL, MW-17-2, 5/4/2022 12:05:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	46	mg/L	0.10	0.014	EPA-200.7	0.037		1	
Total Recoverable Magnesium	17	mg/L	0.050	0.019	EPA-200.7	0.031		1	
Total Recoverable Sodium	18	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	2.6	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	240	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	200	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	8.8	mg/L	0.50	0.13	EPA-300.0	0.24		3	
Nitrate as N	0.096	mg/L	0.10	0.024	EPA-300.0	0.034	J	3	
Sulfate	28	mg/L	1.0	0.14	EPA-300.0	0.34		3	
pH	8.18	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	400	mg/L	33	17	EPA-160.1	ND	A10	5	
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	0.010	J	6	
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/11/22 18:00	05/13/22	13:22	AK1	PE-OP4	1	B139453	EPA 200.2
2	SM-2320B	05/10/22 07:00	05/10/22	08:48	RML	MET-1	1	B138207	No Prep
3	EPA-300.0	05/05/22 13:00	05/05/22	14:20	SAV	IC5	1	B138979	No Prep
4	EPA-150.1	05/10/22 07:00	05/10/22	08:48	RML	MET-1	1	B138207	No Prep
5	EPA-160.1	05/09/22 15:00	05/09/22	15:00	CAD	MANUAL	3.333	B139236	No Prep
6	EPA-353.2	05/05/22 19:08	05/05/22	19:13	KB1	KONE-1	1	B139303	No Prep
7	EPA-314.0	05/12/22 22:00	05/12/22	23:57	MKB	IC6	1	B139677	No Prep

DCN = Data Continuation Number

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2210539-05	<b>Client Sample Name:</b> NASA/JPL, MW-17-2, 5/4/2022 12:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000025	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	130	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/13/22 20:00	05/13/22	21:23	JAT	IC-4	1	B139227	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22	20:41	AK1	PE-EL2	1	B139521	EPA 200.2
3	EPA-200.7	05/11/22 18:00	05/13/22	13:22	AK1	PE-OP4	1	B139453	EPA 200.2

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210539-06      **Client Sample Name:** NASA/JPL, MW-17-1, 5/4/2022 1:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210539-06      **Client Sample Name:** NASA/JPL, MW-17-1, 5/4/2022 1:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210539-06	Client Sample Name: NASA/JPL, MW-17-1, 5/4/2022 1:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 00:55	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210539-06	Client Sample Name: NASA/JPL, MW-17-1, 5/4/2022 1:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	00:55	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number

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**Reported:** 06/24/2022 11:41  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210539-06	<b>Client Sample Name:</b> NASA/JPL, MW-17-1, 5/4/2022 1:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 08:19	ADC	MS-V16	1	B139164	EPA 524.2

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210539-06	Client Sample Name:	NASA/JPL, MW-17-1, 5/4/2022 1:05:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	65	mg/L	0.10	0.014	EPA-200.7	0.037		1
Total Recoverable Magnesium	20	mg/L	0.050	0.019	EPA-200.7	0.031		1
Total Recoverable Sodium	19	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	240	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	200	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	22	mg/L	0.50	0.13	EPA-300.0	0.24		3
Nitrate as N	1.8	mg/L	0.10	0.024	EPA-300.0	0.034		3
Sulfate	42	mg/L	1.0	0.14	EPA-300.0	0.34		3
pH	7.85	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	320	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	0.010	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/11/22 18:00	05/13/22 14:42		AK1	PE-OP4	1	B139453	EPA 200.2
2	SM-2320B	05/10/22 07:00	05/10/22 09:09		RML	MET-1	1	B138207	No Prep
3	EPA-300.0	05/05/22 13:00	05/05/22 16:25		MKB	IC5	1	B138979	No Prep
4	EPA-150.1	05/10/22 07:00	05/10/22 09:09		RML	MET-1	1	B138207	No Prep
5	EPA-160.1	05/09/22 15:00	05/09/22 15:00		CAD	MANUAL	2	B139236	No Prep
6	EPA-353.2	05/05/22 19:08	05/05/22 19:19		KB1	KONE-1	1	B139303	No Prep
7	EPA-314.0	05/12/22 22:00	05/13/22 02:15		MKB	IC6	1	B139677	No Prep

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210539-06	Client Sample Name: NASA/JPL, MW-17-1, 5/4/2022 1:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00014	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	0.70	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	41	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/13/22 20:00	05/13/22 22:30	JAT	IC-4	1	B139227	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 23:19	AK1	PE-EL2	1	B139521	EPA 200.2
3	EPA-200.7	05/11/22 18:00	05/13/22 14:42	AK1	PE-OP4	1	B139453	EPA 200.2

DCN = Data Continuation Number

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210539-07      **Client Sample Name:** NASA/JPL, EB-8-050422, 5/4/2022 1:45:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210539-07	Client Sample Name:	NASA/JPL, EB-8-050422, 5/4/2022 1:45:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210539-07	<b>Client Sample Name:</b> NASA/JPL, EB-8-050422, 5/4/2022 1:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	98.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 01:19	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210539-07	Client Sample Name: NASA/JPL, EB-8-050422, 5/4/2022 1:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	01:19	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 06/24/2022 11:41  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210539-07	<b>Client Sample Name:</b> NASA/JPL, EB-8-050422, 5/4/2022 1:45:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/09/22 06:00	05/09/22 09:11	ADC	MS-V16	1	B139164	EPA 524.2

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210539-07	Client Sample Name:	NASA/JPL, EB-8-050422, 5/4/2022 1:45:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	0.13	mg/L	0.10	0.014	EPA-200.7	0.037		1
Total Recoverable Magnesium	0.062	mg/L	0.050	0.019	EPA-200.7	0.031		1
Total Recoverable Sodium	0.33	mg/L	0.50	0.051	EPA-200.7	ND	J	1
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	ND	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	0.24	mg/L	0.50	0.13	EPA-300.0	0.24	J	3
Nitrate as N	ND	mg/L	0.10	0.024	EPA-300.0	0.034		3
Sulfate	ND	mg/L	1.0	0.14	EPA-300.0	0.34		3
pH	6.31	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	4.0	mg/L	6.7	3.3	EPA-160.1	ND	J	5
Nitrite as N	0.012	mg/L	0.050	0.010	EPA-353.2	0.010	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/11/22 18:00	05/13/22 14:45		AK1	PE-OP4	1	B139453	EPA 200.2
2	SM-2320B	05/10/22 07:00	05/10/22 09:20		RML	MET-1	1	B138207	No Prep
3	EPA-300.0	05/05/22 13:00	05/05/22 17:19		MKB	IC5	1	B138979	No Prep
4	EPA-150.1	05/10/22 07:00	05/10/22 09:20		RML	MET-1	1	B138207	No Prep
5	EPA-160.1	05/09/22 15:00	05/09/22 15:00		CAD	MANUAL	0.667	B139236	No Prep
6	EPA-353.2	05/05/22 19:08	05/05/22 19:19		KB1	KONE-1	1	B139303	No Prep
7	EPA-314.0	05/12/22 22:00	05/13/22 02:31		MKB	IC6	1	B139677	No Prep

DCN = Data Continuation Number



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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

**BCL Sample ID:** 2210539-07      **Client Sample Name:** NASA/JPL, EB-8-050422, 5/4/2022 1:45:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000098	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	36	ug/L	50	30	EPA-200.7	ND	J	3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/13/22 20:00	05/13/22 23:11	KB1	IC-4	1	B139227	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 23:20	AK1	PE-EL2	1	B139521	EPA 200.2
3	EPA-200.7	05/11/22 18:00	05/13/22 14:45	AK1	PE-OP4	1	B139453	EPA 200.2

DCN = Data Continuation Number

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139140</b>						
Benzene	B139140-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B139140-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B139140-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B139140-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B139140-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B139140-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B139140-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B139140-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B139140-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B139140-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B139140-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B139140-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B139140-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B139140-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B139140-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B139140-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B139140-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B139140-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B139140-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B139140-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B139140-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B139140-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B139140-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B139140-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B139140-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B139140-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B139140-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B139140-BLK1	ND	ug/L	0.50	0.14	

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139140</b>						
trans-1,3-Dichloropropene	B139140-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B139140-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B139140-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B139140-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B139140-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B139140-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B139140-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B139140-BLK1	ND	ug/L	0.50	0.12	
Styrene	B139140-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B139140-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B139140-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B139140-BLK1	ND	ug/L	0.50	0.23	
Toluene	B139140-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B139140-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B139140-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B139140-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B139140-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B139140-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B139140-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B139140-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B139140-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B139140-BLK1	ND	ug/L	0.50	0.18	
Acetone	B139140-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B139140-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B139140-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B139140-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B139140-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B139140-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B139140-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B139140-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B139140-BLK1	ND	ug/L	4.0	1.3	

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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139140</b>						
Ethyl t-butyl ether	B139140-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B139140-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B139140-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B139140-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B139140-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B139140-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B139140-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B139140-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B139140-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B139140-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B139140-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B139140-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B139140-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B139140-BLK1</b>	<b>100</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B139140-BLK1</b>	<b>98.4</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B139140-BLK1</b>	<b>96.3</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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 Project Number: 2Q22  
 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: B139140</b>										
Benzene	B139140-BS1	LCS	23.440	25.000	ug/L	93.8		70 - 130		
Bromodichloromethane	B139140-BS1	LCS	24.350	25.000	ug/L	97.4		70 - 130		
Chlorobenzene	B139140-BS1	LCS	22.670	25.000	ug/L	90.7		70 - 130		
Chloroethane	B139140-BS1	LCS	24.740	25.000	ug/L	99.0		70 - 130		
1,4-Dichlorobenzene	B139140-BS1	LCS	22.600	25.000	ug/L	90.4		70 - 130		
1,1-Dichloroethane	B139140-BS1	LCS	24.320	25.000	ug/L	97.3		70 - 130		
1,1-Dichloroethene	B139140-BS1	LCS	25.970	25.000	ug/L	104		70 - 130		
Toluene	B139140-BS1	LCS	23.510	25.000	ug/L	94.0		70 - 130		
Trichloroethene	B139140-BS1	LCS	24.310	25.000	ug/L	97.2		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B139140-BS1	LCS	10.230	10.000	ug/L	102		75 - 125		
Toluene-d8 (Surrogate)	B139140-BS1	LCS	10.080	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	B139140-BS1	LCS	10.070	10.000	ug/L	101		80 - 120		

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 Project Number: 2Q22  
 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	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139140</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
Benzene	MS	2210539-05	ND	23.980	25.000	ug/L		95.9		70 - 130	
	MSD	2210539-05	ND	23.740	25.000	ug/L	1.0	95.0	20	70 - 130	
Bromodichloromethane	MS	2210539-05	ND	25.250	25.000	ug/L		101		70 - 130	
	MSD	2210539-05	ND	25.440	25.000	ug/L	0.7	102	20	70 - 130	
Chlorobenzene	MS	2210539-05	ND	23.660	25.000	ug/L		94.6		70 - 130	
	MSD	2210539-05	ND	23.050	25.000	ug/L	2.6	92.2	20	70 - 130	
Chloroethane	MS	2210539-05	ND	24.750	25.000	ug/L		99.0		70 - 130	
	MSD	2210539-05	ND	24.710	25.000	ug/L	0.2	98.8	20	70 - 130	
1,4-Dichlorobenzene	MS	2210539-05	ND	22.990	25.000	ug/L		92.0		70 - 130	
	MSD	2210539-05	ND	22.580	25.000	ug/L	1.8	90.3	20	70 - 130	
1,1-Dichloroethane	MS	2210539-05	ND	24.880	25.000	ug/L		99.5		70 - 130	
	MSD	2210539-05	ND	24.690	25.000	ug/L	0.8	98.8	20	70 - 130	
1,1-Dichloroethene	MS	2210539-05	ND	26.450	25.000	ug/L		106		70 - 130	
	MSD	2210539-05	ND	26.130	25.000	ug/L	1.2	105	20	70 - 130	
Toluene	MS	2210539-05	ND	23.660	25.000	ug/L		94.6		70 - 130	
	MSD	2210539-05	ND	23.670	25.000	ug/L	0.0	94.7	20	70 - 130	
Trichloroethene	MS	2210539-05	ND	24.300	25.000	ug/L		97.2		70 - 130	
	MSD	2210539-05	ND	24.370	25.000	ug/L	0.3	97.5	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2210539-05	ND	10.050	10.000	ug/L		100		75 - 125	
	MSD	2210539-05	ND	9.9500	10.000	ug/L	1.0	99.5		75 - 125	
Toluene-d8 (Surrogate)	MS	2210539-05	ND	10.000	10.000	ug/L		100		80 - 120	
	MSD	2210539-05	ND	10.000	10.000	ug/L	0	100		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2210539-05	ND	9.9200	10.000	ug/L		99.2		80 - 120	
	MSD	2210539-05	ND	9.8700	10.000	ug/L	0.5	98.7		80 - 120	

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 Project Number: 2Q22  
 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: B139140</b>						
Nitrobenzene	B139140-BLK1	0	ug/L			
Methyl acrylate	B139140-BLK1	0	ug/L			
Chloroacetonitrile	B139140-BLK1	0	ug/L			
2-Nitropropane	B139140-BLK1	0	ug/L			
1-Chlorobutane	B139140-BLK1	0	ug/L			
1,1-Dichloropropanone	B139140-BLK1	0	ug/L			

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## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B139164</b>						
1,2,3-Trichloropropane	B139164-BLK1	ND	ug/L	0.0050	0.0010	

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## DHS Low Level 1,2,3-TCP by SRL 524M

### 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: B139164</b>										
1,2,3-Trichloropropane	B139164-BS1	LCS	0.053320	0.050000	ug/L	107		80 - 120		

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## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139164</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
1,2,3-Trichloropropane	MS	2210539-05	ND	0.050000	0.050000	ug/L		100		70 - 130	
	MSD	2210539-05	ND	0.050030	0.050000	ug/L	0.1	100	30	70 - 130	

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 Project Manager: David Conner

## 1,4-Dioxane (EPA Method 8270C)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B139528</b>						
1,4-Dioxane	B139528-BLK1	ND	ug/L	1.0	0.27	
Naphthalene-d8 (Surrogate)	B139528-BLK1	77.9	%	70 - 130 (LCL - UCL)		

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 Project Number: 2Q22  
 Project Manager: David Conner

## 1,4-Dioxane (EPA Method 8270C)

### 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: B139528</b>										
1,4-Dioxane	B139528-BS1	LCS	40.352	50.000	ug/L	80.7		70 - 130		
	B139528-BSD1	LCSD	41.250	50.000	ug/L	82.5	2.2	70 - 130		30
Naphthalene-d8 (Surrogate)	B139528-BS1	LCS	6.6833	8.0000	ug/L	83.5		70 - 130		
	B139528-BSD1	LCSD	6.3100	8.0000	ug/L	78.9	5.7	70 - 130		30

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 Project Manager: David Conner

## 1,4-Dioxane (EPA Method 8270C)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139528</b>		Used client sample: N									
1,4-Dioxane	MS	2209635-66	ND	39.818	50.000	ug/L		79.6			70 - 130
	MSD	2209635-66	ND	40.808	50.000	ug/L	2.5	81.6	30		70 - 130
Naphthalene-d8 (Surrogate)	MS	2209635-66	ND	7.6032	8.0000	ug/L		95.0			70 - 130
	MSD	2209635-66	ND	6.5538	8.0000	ug/L	14.8	81.9	30		70 - 130

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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: B138206</b>						
Bicarbonate	B138206-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138206-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138206-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138207</b>						
Bicarbonate	B138207-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138207-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138207-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138979</b>						
Chloride	B138979-BLK1	0.24100	mg/L	0.50	0.13	J
Nitrate as N	B138979-BLK1	0.034000	mg/L	0.10	0.024	J
Sulfate	B138979-BLK1	0.33700	mg/L	1.0	0.14	J
<b>QC Batch ID: B139236</b>						
Total Dissolved Solids @ 180 C	B139236-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B139303</b>						
Nitrite as N	B139303-BLK1	0.010360	mg/L	0.050	0.010	J
<b>QC Batch ID: B139453</b>						
Total Recoverable Calcium	B139453-BLK1	0.037294	mg/L	0.10	0.014	J
Total Recoverable Magnesium	B139453-BLK1	0.031326	mg/L	0.050	0.019	J
Total Recoverable Sodium	B139453-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B139453-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B139677</b>						
Perchlorate	B139677-BLK1	ND	ug/L	2.0	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 Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B138206</b>										
Total Alkalinity as CaCO3	B138206-BS3	LCS	102.24	100.00	mg/L	102		90 - 110		
pH	B138206-BS2	LCS	7.0700	7.0000	pH Units	101		95 - 105		
<b>QC Batch ID: B138207</b>										
Total Alkalinity as CaCO3	B138207-BS3	LCS	100.14	100.00	mg/L	100		90 - 110		
pH	B138207-BS2	LCS	7.0500	7.0000	pH Units	101		95 - 105		
<b>QC Batch ID: B138979</b>										
Chloride	B138979-BS1	LCS	50.437	50.000	mg/L	101		90 - 110		
Nitrate as N	B138979-BS1	LCS	5.1340	5.0000	mg/L	103		90 - 110		
Sulfate	B138979-BS1	LCS	101.52	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B139236</b>										
Total Dissolved Solids @ 180 C	B139236-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
	B139236-BSD1	LCSD	580.00	586.00	mg/L	99.0	0	90 - 110	200	
<b>QC Batch ID: B139303</b>										
Nitrite as N	B139303-BS1	LCS	0.48896	0.50000	mg/L	97.8		90 - 110		
<b>QC Batch ID: B139453</b>										
Total Recoverable Calcium	B139453-BS1	LCS	9.8354	10.000	mg/L	98.4		85 - 115		
Total Recoverable Magnesium	B139453-BS1	LCS	9.7657	10.000	mg/L	97.7		85 - 115		
Total Recoverable Sodium	B139453-BS1	LCS	9.7022	10.000	mg/L	97.0		85 - 115		
Total Recoverable Potassium	B139453-BS1	LCS	9.4750	10.000	mg/L	94.7		85 - 115		
<b>QC Batch ID: B139677</b>										
Perchlorate	B139677-BS1	LCS	10.811	10.000	ug/L	108		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			
								Percent Recovery	RPD	Percent Recovery	Lab Quals
<b>QC Batch ID: B138206</b>		Used client sample: N									
Bicarbonate	DUP	2210529-04	252.98	256.27		mg/L	1.3		10		A10
Carbonate	DUP	2210529-04	ND	ND		mg/L			10		A10
Total Alkalinity as CaCO3	DUP	2210529-04	207.48	210.18		mg/L	1.3		10		A10
pH	DUP	2210529-04	8.0200	8.0500		pH Units	0.4		20		
<b>QC Batch ID: B138207</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
Bicarbonate	DUP	2210539-05	238.88	239.43		mg/L	0.2		10		
Carbonate	DUP	2210539-05	ND	ND		mg/L			10		
Total Alkalinity as CaCO3	DUP	2210539-05	195.92	196.37		mg/L	0.2		10		
pH	DUP	2210539-05	8.1800	8.2000		pH Units	0.2		20		
<b>QC Batch ID: B138979</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
Chloride	DUP	2210539-05	8.7920	8.7580		mg/L	0.4		10		
	MS	2210539-05	8.7920	62.373	50.505	mg/L		106		80 - 120	
	MSD	2210539-05	8.7920	61.872	50.505	mg/L	0.8	105	10	80 - 120	
Nitrate as N	DUP	2210539-05	0.096000	0.099000		mg/L	3.1		10		J
	MS	2210539-05	0.096000	5.2545	5.0505	mg/L		102		80 - 120	
	MSD	2210539-05	0.096000	4.6394	5.0505	mg/L	12.4	90.0	10	80 - 120	Q02
Sulfate	DUP	2210539-05	28.378	28.204		mg/L	0.6		10		
	MS	2210539-05	28.378	135.40	101.01	mg/L		106		80 - 120	
	MSD	2210539-05	28.378	120.11	101.01	mg/L	12.0	90.8	10	80 - 120	Q02
<b>QC Batch ID: B139236</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
Total Dissolved Solids @ 180 C	DUP	2210539-05	403.33	393.33		mg/L	2.5		10		
<b>QC Batch ID: B139303</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
Nitrite as N	DUP	2210539-05	0.011086	0.010188		mg/L	8.4		10		J
	MS	2210539-05	0.011086	0.52515	0.52632	mg/L		97.7		90 - 110	
	MSD	2210539-05	0.011086	0.51900	0.52632	mg/L	1.2	96.5	10	90 - 110	
<b>QC Batch ID: B139453</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
Total Recoverable Calcium	DUP	2210539-05	46.164	46.186		mg/L	0.0		20		
	MS	2210539-05	46.164	58.578	10.000	mg/L		124		75 - 125	
	MSD	2210539-05	46.164	55.754	10.000	mg/L	4.9	95.9	20	75 - 125	
Total Recoverable Magnesium	DUP	2210539-05	17.068	17.186		mg/L	0.7		20		
	MS	2210539-05	17.068	29.544	10.000	mg/L		125		75 - 125	
	MSD	2210539-05	17.068	28.066	10.000	mg/L	5.1	110	20	75 - 125	
Total Recoverable Sodium	DUP	2210539-05	18.154	18.185		mg/L	0.2		20		
	MS	2210539-05	18.154	28.777	10.000	mg/L		106		75 - 125	
	MSD	2210539-05	18.154	27.588	10.000	mg/L	4.2	94.3	20	75 - 125	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B139453</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
Total Recoverable Potassium	DUP	2210539-05	2.5873	2.5788		mg/L	0.3		20		
	MS	2210539-05	2.5873	12.065	10.000	mg/L		94.8		75 - 125	
	MSD	2210539-05	2.5873	11.800	10.000	mg/L	2.2	92.1	20	75 - 125	
<b>QC Batch ID: B139677</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
Perchlorate	DUP	2210539-05	ND	ND		ug/L			15		
	MS	2210539-05	ND	9.1425	10.101	ug/L		90.5		80 - 120	
	MSD	2210539-05	ND	9.9015	10.101	ug/L	8.0	98.0	15	80 - 120	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139227</b>						
Hexavalent Chromium	B139227-BLK1	ND	mg/L	0.00020	0.000020	
<b>QC Batch ID: B139453</b>						
Total Recoverable Iron	B139453-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B139521</b>						
Total Recoverable Arsenic	B139521-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B139521-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B139521-BLK1	ND	ug/L	1.0	0.10	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139227</b>										
Hexavalent Chromium	B139227-BS1	LCS	0.021884	0.020000	mg/L	109		90 - 110		
<b>QC Batch ID: B139453</b>										
Total Recoverable Iron	B139453-BS1	LCS	995.66	1000.0	ug/L	99.6		85 - 115		
<b>QC Batch ID: B139521</b>										
Total Recoverable Arsenic	B139521-BS1	LCS	97.117	100.00	ug/L	97.1		85 - 115		
	B139521-BSD1	LCSD	98.571	100.00	ug/L	98.6	1.5	85 - 115	20	
Total Recoverable Chromium	B139521-BS1	LCS	38.938	40.000	ug/L	97.3		85 - 115		
	B139521-BSD1	LCSD	39.511	40.000	ug/L	98.8	1.5	85 - 115	20	
Total Recoverable Lead	B139521-BS1	LCS	100.30	100.00	ug/L	100		85 - 115		
	B139521-BSD1	LCSD	97.756	100.00	ug/L	97.8	2.6	85 - 115	20	

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Tidewater Inc. - Powell  
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Reported: 06/24/2022 11:41  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B139227</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
Hexavalent Chromium	DUP	2210539-05	0.000025000	0.000023000		mg/L	8.3		10		J
	MS	2210539-05	0.000025000	0.022027	0.020202	mg/L		109		90 - 110	
	MSD	2210539-05	0.000025000	0.021889	0.020202	mg/L	0.6	108	10	90 - 110	
<b>QC Batch ID: B139453</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
Total Recoverable Iron	DUP	2210539-05	129.88	138.84		ug/L	6.7		20		
	MS	2210539-05	129.88	1142.0	1000.0	ug/L		101		75 - 125	
	MSD	2210539-05	129.88	1203.2	1000.0	ug/L	5.2	107	20	75 - 125	
<b>QC Batch ID: B139521</b>		Used client sample: Y - Description: MW-17-2, 05/04/2022 12:05									
Total Recoverable Arsenic	DUP	2210539-05	ND	0.97300		ug/L			20		J
	MS	2210539-05	ND	109.72	100.00	ug/L		110		70 - 130	
	MSD	2210539-05	ND	102.20	100.00	ug/L	7.1	102	20	70 - 130	
Total Recoverable Chromium	DUP	2210539-05	ND	ND		ug/L			20		
	MS	2210539-05	ND	39.651	40.000	ug/L		99.1		70 - 130	
	MSD	2210539-05	ND	38.632	40.000	ug/L	2.6	96.6	20	70 - 130	
Total Recoverable Lead	DUP	2210539-05	ND	ND		ug/L			20		
	MS	2210539-05	ND	104.00	100.00	ug/L		104		70 - 130	
	MSD	2210539-05	ND	97.195	100.00	ug/L	6.8	97.2	20	70 - 130	

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# Certificate of Analysis

FINAL REPORT

Work Orders: 2E09011

Project: 2210539

Attn: Brianna Schutte  
Client: Pace Analytical Services - Bakersfield  
4100 Atlas Court  
Bakersfield, CA 93308

Report Date: 5/20/2022  
Received Date: 5/7/2022  
Turnaround Time: Normal  
Phones: (661) 327-4911  
Fax: (661) 327-1918  
P.O. #:  
Billing Code:

Dear Brianna Schutte,

Enclosed are the results of analyses for samples received 5/07/22 with the Chain-of-Custody document. The samples were received in good condition, at 4.7 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

## Sample Results

Sample:	2210539-03	Sampled: 05/04/22 8:57 by Client					
	2E09011-01 (Water)						
Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier	
Method: EPA 1625B		Instr: GCMS09					
Batch ID: W2E0618	Preparation: EPA 3535/SPE	Prepared: 05/10/22 07:20		Analyst: mid			
N-Nitrosodimethylamine	ND	2.0	ng/l	1	05/17/22		



# Certificate of Analysis

FINAL REPORT

## Quality Control Results

Nitrosamines by isotopic dilution GC/MS CI Mode

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	REC Limits	RPD	RPD Limit	Qualifier
Batch: W2E0618 - EPA 3535/SPE										
Blank (W2E0618-BLK1)				Prepared: 05/10/22 Analyzed: 05/13/22						
N-Nitrosodimethylamine	ND	2.0	ng/l							
Blank (W2E0618-BLK2)				Prepared: 05/10/22 Analyzed: 05/16/22						
N-Nitrosodimethylamine	ND	2.0	ng/l							QC-2
LCS (W2E0618-BS1)				Prepared: 05/10/22 Analyzed: 05/13/22						
N-Nitrosodimethylamine	2.76	2.0	ng/l	2.00		136	50-150			
LCS (W2E0618-BS2)				Prepared: 05/10/22 Analyzed: 05/16/22						
N-Nitrosodimethylamine	2.97	2.0	ng/l	2.00		148	50-150			QC-2
LCS Dup (W2E0618-BSD1)				Prepared: 05/10/22 Analyzed: 05/13/22						
N-Nitrosodimethylamine	2.16	2.0	ng/l	2.00		108	50-150	24	50	
LCS Dup (W2E0618-BSD2)				Prepared: 05/10/22 Analyzed: 05/16/22						
N-Nitrosodimethylamine	2.23	2.0	ng/l	2.00		112	50-150	28	50	QC-2



# Certificate of Analysis

FINAL REPORT

## Notes and Definitions

Item	Definition
QC-2	This QC sample was reanalyzed to complement samples that require re-analysis on different date. See analysis date.
%REC	Percent Recovery
DI	Dilution
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ)
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
RPD	Relative Percent Difference

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

All results are expressed on wet weight basis unless otherwise specified.

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

**Reviewed by:**



Rahul R. Nair  
Project Manager



DoD-ELAP ANAB #ADE-2882 • DoD-ISO ANAB # • ELAP-CA #1132 • EPA-UCMR #CA00211 • HW-DOH #4047 • ISO17025 ANAB #L2457.01 • LACSD #10143 • NELAP-OR #4047 • NJ-DEP #CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

*This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.*



Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 06/24/2022 11:41  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### Notes And Definitions

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A10 Detection and quantitation limits were raised due to matrix interference.
- Q02 Matrix spike precision is not within the control limits.
- S05 The sample holding time was exceeded.
- V11 The Continuing Calibration Verification (CCV) recovery was not within established control limits.



Date of Report: 06/24/2022

David Conner

Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

Client Project: [none]  
BCL Project: JPL- GW Monitoring Wells-CLP  
BCL Work Order: 2210682  
Invoice ID: B449953

Enclosed are the results of analyses for samples received by the laboratory on 5/5/2022. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1001310233

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Operations Manager

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 2210682

\*\*\*Fe 2210682-07 added per coc request, revised report generated.



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 06/24/2022 11:42  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

## Case Narrative

### Sample Receipt

COC Number:

Samples received refrigerated to 0.4 °C

### Sample List

<u>Lab Number</u>	<u>Date/Time Sampled</u>	<u>Sample Name</u>
2210682-01	05/05/2022 11:35	MW-1
2210682-02	05/05/2022 07:00	TB-9-05052022
2210682-03	05/05/2022 09:30	MW-5
2210682-04	05/05/2022 14:35	MW-8
2210682-05	05/05/2022 13:02	MW-9
2210682-06	05/05/2022 07:50	MW-10
2210682-07	05/05/2022 14:04	MW-15
2210682-08	05/05/2022 15:00	EB-9-050522
2210682-09	05/05/2022 13:17	DUP-6-2Q22
2210682-10	05/05/2022 14:19	DUP-7-2Q22

### Requested Analysis

Calc, EPA-150.1, EPA-160.1, EPA-200.7 (TRM), EPA-200.8 (TRM), EPA-218.6, EPA-300.0, EPA-314.0, EPA-353.2, EPA-524.2, SM-2320B, SRL 524M

<u>Sample</u>	<u>Analyte</u>	<u>Flag</u>
---------------	----------------	-------------



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

### Case Narrative

<u>Sample</u>	<u>Analyte</u>	<u>Flag</u>
<b>Sample Qualifier Summary</b>		
2210682-01	EPA-160.1 Total Dissolved Solids @ 180 C	A10
2210682-01	EPA-524.2 Bromomethane	V11
2210682-01	EPA-524.2 Pentachloroethane	V11
2210682-02	EPA-524.2 Bromomethane	V11
2210682-02	EPA-524.2 Pentachloroethane	V11
2210682-03	EPA-524.2 Bromomethane	V11
2210682-03	EPA-524.2 Pentachloroethane	V11
2210682-04	EPA-524.2 Bromomethane	V11
2210682-04	EPA-524.2 Pentachloroethane	V11
2210682-05	EPA-160.1 Total Dissolved Solids @ 180 C	A10
2210682-05	EPA-524.2 Bromomethane	V11
2210682-05	EPA-524.2 Pentachloroethane	V11
2210682-06	EPA-524.2 Bromomethane	V11
2210682-06	EPA-524.2 Pentachloroethane	V11
2210682-07	EPA-160.1 Total Dissolved Solids @ 180 C	A10
2210682-07	EPA-524.2 Methyl iodide	V11
2210682-07	EPA-524.2 Pentachloroethane	V11
2210682-08	EPA-524.2 Bromomethane	V11
2210682-08	EPA-524.2 Pentachloroethane	V11
2210682-09	EPA-160.1 Total Dissolved Solids @ 180 C	A10
2210682-09	EPA-524.2 Bromomethane	V11
2210682-09	EPA-524.2 Pentachloroethane	V11
2210682-10	EPA-160.1 Total Dissolved Solids @ 180 C	A10
2210682-10	EPA-524.2 Bromomethane	V11
2210682-10	EPA-524.2 Pentachloroethane	V11

### Holding Times

2210682-01	EPA-150.1	pH	S05
2210682-05	EPA-150.1	pH	S05
2210682-07	EPA-150.1	pH	S05
2210682-08	EPA-150.1	pH	S05
2210682-09	EPA-150.1	pH	S05
2210682-10	EPA-150.1	pH	S05

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Case Narrative

<u>Sample</u>		<u>Analyte</u>	<u>Flag</u>
<b>Method Blanks</b>			
B139140-BLK1	EPA-524.2	1,1-Dichloropropanone	0 ug/L
B139140-BLK1	EPA-524.2	1-Chlorobutane	0 ug/L
B139140-BLK1	EPA-524.2	2-Nitropropane	0 ug/L
B139140-BLK1	EPA-524.2	Chloroacetonitrile	0 ug/L
B139140-BLK1	EPA-524.2	Methyl acrylate	0 ug/L
B139140-BLK1	EPA-524.2	Nitrobenzene	0 ug/L
B139141-BLK1	EPA-524.2	1,1-Dichloropropanone	0 ug/L
B139141-BLK1	EPA-524.2	1-Chlorobutane	0 ug/L
B139141-BLK1	EPA-524.2	2-Nitropropane	0 ug/L
B139141-BLK1	EPA-524.2	Chloroacetonitrile	0 ug/L
B139141-BLK1	EPA-524.2	Methyl acrylate	0 ug/L
B139141-BLK1	EPA-524.2	Nitrobenzene	0 ug/L
B139142-BLK1	EPA-524.2	1,1-Dichloropropanone	0 ug/L
B139142-BLK1	EPA-524.2	1-Chlorobutane	0 ug/L
B139142-BLK1	EPA-524.2	2-Nitropropane	0 ug/L
B139142-BLK1	EPA-524.2	Chloroacetonitrile	0 ug/L
B139142-BLK1	EPA-524.2	Methyl acrylate	0 ug/L
B139142-BLK1	EPA-524.2	Nitrobenzene	0 ug/L
B139519-BLK1	EPA-200.7 (TRM)	Total Recoverable Calcium	0.024367 mg/L
B139519-BLK1	EPA-200.7 (TRM)	Total Recoverable Magnesium	0.025808 mg/L
B139520-BLK1	EPA-200.7 (TRM)	Total Recoverable Calcium	0.017850 mg/L
B139520-BLK1	EPA-200.7 (TRM)	Total Recoverable Magnesium	0.023540 mg/L
<b>Matrix Spikes</b>			
B139520-MSD1	EPA-200.7 (TRM)	Total Recoverable Calcium	A03
B139522-DUP1	EPA-200.8 (TRM)	Total Recoverable Arsenic	A02
B139523-DUP1	EPA-200.8 (TRM)	Total Recoverable Chromium	A02

## LCS

The LCS recoveries are within QC limits.

## Discussion

## Summary of Flags

A02	The difference between duplicate readings is less than the quantitation limit.
A03	The sample concentration was more than 4 times the spike level.
A10	Detection and quantitation limits were raised due to matrix interference.
S05	The sample holding time was exceeded.
V11	The Continuing Calibration Verification (CCV) recovery was not within established control limits.

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# Chain of Custody Form



ANALYTICAL SERVICES 4100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.pacelabs.com

Report For: **Tidewater, Inc.** Client: **David Conner** Project #: **JPL-GW Monitoring** Project Name: **2Q22** Page 1 of 1

Street Address: **3761 Attucks Drive** City, State, Zip: **Powell, OH 43065** Sample(s) Name: **Blaine Tech**

Phone: **626-298-5715** Fax: **614-792-2897** Email: **david.conner@tideh2o.net**

Work Order #: **22-10082**

Sample #	Description	Date Sampled	Time Sampled	Analysis Requested	Sample Matrix	Notes
-1	MW-1	5/15/22	1135	Hexavalent Cr6 -218.6 (mg/L) Cl, NO3, NO2, SO4, Perch. CO3, HCO3, Alk, TDS, PH Orthophosphate 365.1 NDMA 1625M Low-level 1,2,3-TCP	Drinking Water	MS/MSD
-2	TD-9-0505 2022	5/15/22	0700		Drinking Water	
-3	MW-5	5/15/22	0930		Drinking Water	
-4	MW-8	5/15/22	1435		Drinking Water	
-5	MW-9	5/15/22	1307		Drinking Water	
-6	MW-10	5/15/22	0750		Drinking Water	
-7	MW-15	5/15/22	1404		Drinking Water	MS/MSD
-8	EB-9-0505 2022	5/15/22	1500		Drinking Water	
-9	Dup - 6 - 2022	5/15/22	1317		Drinking Water	
-10	Dup - 7 - 2022	5/15/22	1419		Drinking Water	

Result Request:  STD  5 Day  4 Day  3 Day  2 Day  1 Day  
Rush requests must be approved

Sample Matrix:  Waste Water  Ground Water  Drinking Water  Sludge  Soil  Other

Global ID:  Yes  No

EDF Required Geotracker:  Yes  No

1. Reinquished By: **David Conner** Date: **5/15/22** Time: **1530**

2. Reinquished By: **David Conner** Date: **5/15/22** Time: **1845**

3. Reinquished By: **David Conner** Date: **5/15/22** Time: **1845**

Client: **Same as above**

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Att: \_\_\_\_\_ P.O. #: \_\_\_\_\_

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

EDF Required Geotracker:  Yes  No

1. Reinquished By: **David Conner** Date: **5/15/22** Time: **1530**

2. Reinquished By: **David Conner** Date: **5/15/22** Time: **1845**

3. Reinquished By: **David Conner** Date: **5/15/22** Time: **1845**

Comments: \_\_\_\_\_

Sample Matrix:  Waste Water  Ground Water  Drinking Water  Sludge  Soil  Other

Result Request:  STD  5 Day  4 Day  3 Day  2 Day  1 Day  
Rush requests must be approved

Notes: **MS/MSD**

WASH ORT HOLDING TIME \_\_\_\_\_ OF \_\_\_\_\_ SS

DO - O2 - SOP - GAS COY

CHK BY: **David Conner**

DISTRIBUTION: **MS/MSD**

SUB-OUT:

Pace Analytical Bakersfield does not accept samples containing radioactive material above background levels. Samples containing radioactive material must be disclosed prior to receipt. Any samples suspected of containing radioactive material above background levels will not be accepted and will be returned to client.

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>1</u> Of <u>2</u>	
Submission #: <u>22-10682</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> <u>W</u> / <u>S</u>
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____ Intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>294</u>		Date/Time <u>5/5/22</u>	
		Temperature: (A) <u>0.6</u> °C / (C) <u>0.4</u> °C		Analyst Init <u>BU 1845</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	M-N		D				M-N	G		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>	Q-R						Q-R	I		
QT INORGANIC CHEMICAL METALS	O-P						O-P	H		
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK <u>IMP.</u>		A								
40ml VOA VIAL	A-F		A-C				A-F	A-C		
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL <u>AMBER VIAL</u>	G-L						G-L	D-F		
QT EPA 503/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 551.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: CAB Date/Time: 5/5/22 0715  
 A = Actual / C = Corrected

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>2</u> of <u>2</u>	
Submission #: <u>22-10682</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> <u>W</u> / <u>S</u>
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____ Intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>294</u>		Date/Time: <u>5/5/22</u>	
		Temperature: (A) <u>0.8</u> °C / (C) <u>0.6</u> °C		Analyst Init: <u>BC1845</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES				D	G	D			G	G
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>					I				I	I
QT INORGANIC CHEMICAL METALS					H				H	H
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL				A-C	A-C	A-C			A-C	A-C
QT EPA 1661B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- <del>504</del> Amber Vial					D-F				D-F	D-F
QT EPA 503/608.JN081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: CAB Date/Time: 5/5/22 0728  
 A = Actual / C = Corrected





Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 06/24/2022 11:42  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
2210682-01	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-1 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/05/2022 18:45 <b>Sampling Date:</b> 05/05/2022 11:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-1 Matrix: WG Sample QC Type (SACode): CS Cooler ID:	
2210682-02	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> TB-9-05052022 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/05/2022 18:45 <b>Sampling Date:</b> 05/05/2022 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-9-05052022 Matrix: WG Sample QC Type (SACode): CS Cooler ID:	
2210682-03	<b>COC Number:</b> --- <b>Project Number:</b> NASA/JPL <b>Sampling Location:</b> --- <b>Sampling Point:</b> MW-5 <b>Sampled By:</b> BTST	<b>Receive Date:</b> 05/05/2022 18:45 <b>Sampling Date:</b> 05/05/2022 09:30 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: 0000000000 Location ID (FieldPoint): MW-5 Matrix: WG Sample QC Type (SACode): CS Cooler ID:	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 06/24/2022 11:42  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information					
2210682-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/05/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/05/2022 14:35		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-8	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): MW-8					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						
2210682-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/05/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/05/2022 13:02		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-9	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): MW-9					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						
2210682-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/05/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/05/2022 07:50		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-10	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): MW-10					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 06/24/2022 11:42  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information					
2210682-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/05/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/05/2022 14:04		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	MW-15	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): MW-15					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						
2210682-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/05/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/05/2022 15:00		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	EB-9-050522	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Blank Water		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): EB-9-050522					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						
2210682-09	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/05/2022 18:45		
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/05/2022 13:17		
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---		
	<b>Sampling Point:</b>	DUP-6-2Q22	<b>Lab Matrix:</b>	Water		
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater		
	Delivery Work Order:					
	Global ID: 0000000000					
	Location ID (FieldPoint): DUP-6-2Q22					
	Matrix: WG					
	Sample QC Type (SACode): CS					
Cooler ID:						

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Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 06/24/2022 11:42  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

### Laboratory / Client Sample Cross Reference

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

<b>2210682-10</b>	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/05/2022 18:45
	<b>Project Number:</b>	NASA/JPL	<b>Sampling Date:</b>	05/05/2022 14:19
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	DUP-7-2Q22	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b>	Groundwater
			Delivery Work Order:	
			Global ID: 0000000000	
			Location ID (FieldPoint): DUP-7-2Q22	
			Matrix: WG	
			Sample QC Type (SACode): CS	
		Cooler ID:		

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-01	Client Sample Name:	NASA/JPL, MW-1, 5/5/2022 11:35:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-01	Client Sample Name:	NASA/JPL, MW-1, 5/5/2022 11:35:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210682-01	Client Sample Name: NASA/JPL, MW-1, 5/5/2022 11:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	93.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22 09:02	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210682-01	Client Sample Name: NASA/JPL, MW-1, 5/5/2022 11:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22	09:02	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number





Tidewater Inc. - Powell  
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**Reported:** 06/24/2022 11:42  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210682-01	<b>Client Sample Name:</b> NASA/JPL, MW-1, 5/5/2022 11:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/10/22 06:00	05/10/22 14:56	ADC	MS-V16	1	B139271	EPA 524.2

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210682-01	Client Sample Name:	NASA/JPL, MW-1, 5/5/2022 11:35:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	66	mg/L	0.10	0.014	EPA-200.7	0.024		1	
Total Recoverable Magnesium	19	mg/L	0.050	0.019	EPA-200.7	0.026		1	
Total Recoverable Sodium	29	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	3.0	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	270	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	220	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	29	mg/L	0.50	0.13	EPA-300.0	ND		3	
Nitrate as N	0.55	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	51	mg/L	1.0	0.14	EPA-300.0	ND		3	
pH	7.88	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	380	mg/L	20	10	EPA-160.1	ND	A10	5	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6	
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/12/22 10:40	05/13/22 16:22		JRG	PE-OP4	1	B139519	EPA 200.2
2	SM-2320B	05/11/22 07:00	05/11/22 13:34		RML	MET-1	1	B138216	No Prep
3	EPA-300.0	05/06/22 10:00	05/06/22 11:59		SAV	IC2	1	B139040	No Prep
4	EPA-150.1	05/11/22 07:00	05/11/22 13:34		RML	MET-1	1	B138216	No Prep
5	EPA-160.1	05/10/22 14:00	05/10/22 14:00		CAD	MANUAL	2	B139328	No Prep
6	EPA-353.2	05/07/22 01:41	05/07/22 01:41		KB1	KONE-1	1	B139321	No Prep
7	EPA-314.0	05/16/22 13:00	05/16/22 15:20		KB1	IC6	1	B139762	No Prep

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210682-01	Client Sample Name: NASA/JPL, MW-1, 5/5/2022 11:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000076	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	1.4	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/16/22 23:00	05/17/22 15:56		KB1	IC-4	1	B139776	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 21:04		AK1	PE-EL4	1	B139522	EPA 200.2
3	EPA-200.7	05/12/22 10:40	05/13/22 16:22		JRG	PE-OP4	1	B139519	EPA 200.2

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-02	Client Sample Name:	NASA/JPL, TB-9-05052022, 5/5/2022 7:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-02	Client Sample Name:	NASA/JPL, TB-9-05052022, 5/5/2022 7:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210682-02      **Client Sample Name:** NASA/JPL, TB-9-05052022, 5/5/2022 7:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.6	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	96.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22 12:43	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210682-02	Client Sample Name: NASA/JPL, TB-9-05052022, 5/5/2022 7:00:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22	12:43	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-03	Client Sample Name:	NASA/JPL, MW-5, 5/5/2022 9:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-03	Client Sample Name:	NASA/JPL, MW-5, 5/5/2022 9:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210682-03      **Client Sample Name:** NASA/JPL, MW-5, 5/5/2022 9:30:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	99.4	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	94.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22 13:07	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210682-03	Client Sample Name: NASA/JPL, MW-5, 5/5/2022 9:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22	13:07	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID: 2210682-03	Client Sample Name: NASA/JPL, MW-5, 5/5/2022 9:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Chloride	5.7	mg/L	0.50	0.13	EPA-300.0	ND		1
Nitrate as N	3.8	mg/L	0.10	0.024	EPA-300.0	ND		1
Sulfate	15	mg/L	1.0	0.14	EPA-300.0	ND		1
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		2
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		3

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-300.0	05/06/22 10:00	05/06/22 13:21		JAT	IC2	1	B139040	No Prep
2	EPA-353.2	05/07/22 01:41	05/07/22 01:41		KB1	KONE-1	1	B139321	No Prep
3	EPA-314.0	05/16/22 13:00	05/16/22 16:21		KB1	IC6	1	B139762	No Prep

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-04	Client Sample Name:	NASA/JPL, MW-8, 5/5/2022 2:35:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>0.15</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-04	Client Sample Name:	NASA/JPL, MW-8, 5/5/2022 2:35:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210682-04      **Client Sample Name:** NASA/JPL, MW-8, 5/5/2022 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22 13:32	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210682-04	Client Sample Name: NASA/JPL, MW-8, 5/5/2022 2:35:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22	13:32	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number





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 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID: 2210682-04	Client Sample Name: NASA/JPL, MW-8, 5/5/2022 2:35:00PM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Chloride	26	mg/L	0.50	0.13	EPA-300.0	ND		1
Nitrate as N	2.7	mg/L	0.10	0.024	EPA-300.0	ND		1
Sulfate	56	mg/L	1.0	0.14	EPA-300.0	ND		1
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		2
Perchlorate	7.9	ug/L	2.0	0.81	EPA-314.0	ND		3

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-300.0	05/06/22 10:00	05/06/22 13:48	JAT	IC2	1	B139040	No Prep
2	EPA-353.2	05/07/22 01:41	05/07/22 01:41	KB1	KONE-1	1	B139321	No Prep
3	EPA-314.0	05/16/22 13:00	05/16/22 16:36	KB1	IC6	1	B139762	No Prep

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 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210682-05      **Client Sample Name:** NASA/JPL, MW-9, 5/5/2022 1:02:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210682-05      **Client Sample Name:** NASA/JPL, MW-9, 5/5/2022 1:02:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210682-05      **Client Sample Name:** NASA/JPL, MW-9, 5/5/2022 1:02:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22 13:57	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210682-05	Client Sample Name: NASA/JPL, MW-9, 5/5/2022 1:02:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22	13:57	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210682-05	Client Sample Name: NASA/JPL, MW-9, 5/5/2022 1:02:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/10/22 06:00	05/10/22 10:34	ADC	MS-V16	1	B139271	EPA 524.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210682-05	Client Sample Name:	NASA/JPL, MW-9, 5/5/2022 1:02:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	63	mg/L	0.10	0.014	EPA-200.7	0.024		1
Total Recoverable Magnesium	19	mg/L	0.050	0.019	EPA-200.7	0.026		1
Total Recoverable Sodium	24	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	3.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	220	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	180	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	34	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	2.4	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	56	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	7.62	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	360	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/12/22 10:40	05/13/22 16:49		JRG	PE-OP4	1	B139519	EPA 200.2
2	SM-2320B	05/11/22 07:00	05/11/22 14:39		RML	MET-1	1	B138216	No Prep
3	EPA-300.0	05/06/22 10:00	05/06/22 14:09		JAT	IC2	1	B139040	No Prep
4	EPA-150.1	05/11/22 07:00	05/11/22 14:39		RML	MET-1	1	B138216	No Prep
5	EPA-160.1	05/10/22 14:00	05/10/22 14:00		CAD	MANUAL	2	B139328	No Prep
6	EPA-353.2	05/07/22 01:41	05/07/22 01:41		KB1	KONE-1	1	B139321	No Prep
7	EPA-314.0	05/16/22 13:00	05/16/22 17:22		KB1	IC6	1	B139762	No Prep

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210682-05	Client Sample Name: NASA/JPL, MW-9, 5/5/2022 1:02:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0015	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.3	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	28	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	400	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/16/22 23:00	05/17/22 16:34		KB1	IC-4	1	B139776	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 21:32		AK1	PE-EL4	1	B139522	EPA 200.2
3	EPA-200.7	05/12/22 10:40	05/13/22 16:49		JRG	PE-OP4	1	B139519	EPA 200.2

DCN = Data Continuation Number





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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210682-06		Client Sample Name: NASA/JPL, MW-10, 5/5/2022 7:50:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-06	Client Sample Name:	NASA/JPL, MW-10, 5/5/2022 7:50:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
<b>Trichloroethene</b>	<b>0.77</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210682-06	Client Sample Name: NASA/JPL, MW-10, 5/5/2022 7:50:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22 14:21	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210682-06	Client Sample Name: NASA/JPL, MW-10, 5/5/2022 7:50:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22	14:21	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID: 2210682-06	Client Sample Name: NASA/JPL, MW-10, 5/5/2022 7:50:00AM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Chloride	11	mg/L	0.50	0.13	EPA-300.0	ND		1
Nitrate as N	1.2	mg/L	0.10	0.024	EPA-300.0	ND		1
Sulfate	32	mg/L	1.0	0.14	EPA-300.0	ND		1
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		2
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		3

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-300.0	05/06/22 10:00	05/06/22 14:29	JAT	IC2	1	B139040	No Prep
2	EPA-353.2	05/07/22 01:41	05/07/22 01:41	KB1	KONE-1	1	B139321	No Prep
3	EPA-314.0	05/16/22 13:00	05/16/22 17:38	KB1	IC6	1	B139762	No Prep

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 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-07	Client Sample Name:	NASA/JPL, MW-15, 5/5/2022 2:04:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210682-07      **Client Sample Name:** NASA/JPL, MW-15, 5/5/2022 2:04:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210682-07	Client Sample Name: NASA/JPL, MW-15, 5/5/2022 2:04:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND	V11	1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	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)	97.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22 21:42	MGC	MS-V5	1	B139142	EPA 524.2

DCN = Data Continuation Number





Tidewater Inc. - Powell  
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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210682-07	Client Sample Name: NASA/JPL, MW-15, 5/5/2022 2:04:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22	21:42	MGC	MS-V5	1	B139142	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

BCL Sample ID: 2210682-07	Client Sample Name: NASA/JPL, MW-15, 5/5/2022 2:04:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/10/22 06:00	05/10/22 17:06	ADC	MS-V16	1	B139272	EPA 524.2

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210682-07	Client Sample Name:	NASA/JPL, MW-15, 5/5/2022 2:04:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	59	mg/L	0.10	0.014	EPA-200.7	0.018		1	
Total Recoverable Magnesium	18	mg/L	0.050	0.019	EPA-200.7	0.024		1	
Total Recoverable Sodium	28	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	2.9	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	240	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	24	mg/L	0.50	0.13	EPA-300.0	ND		3	
Nitrate as N	1.3	mg/L	0.10	0.024	EPA-300.0	ND		3	
Sulfate	50	mg/L	1.0	0.14	EPA-300.0	ND		3	
pH	7.79	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	350	mg/L	20	10	EPA-160.1	ND	A10	5	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6	
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/12/22 10:40	05/13/22 17:20		JRG	PE-OP4	1	B139520	EPA 200.2
2	SM-2320B	05/11/22 07:00	05/11/22 14:50		RML	MET-1	1	B138216	No Prep
3	EPA-300.0	05/06/22 10:00	05/06/22 15:52		JAT	IC2	1	B139040	No Prep
4	EPA-150.1	05/11/22 07:00	05/11/22 14:50		RML	MET-1	1	B138216	No Prep
5	EPA-160.1	05/10/22 14:00	05/10/22 14:00		CAD	MANUAL	2	B139328	No Prep
6	EPA-353.2	05/07/22 01:41	05/07/22 01:47		KB1	KONE-1	1	B139321	No Prep
7	EPA-314.0	05/16/22 13:00	05/16/22 17:53		KB1	IC6	1	B139762	No Prep

DCN = Data Continuation Number



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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210682-07	Client Sample Name: NASA/JPL, MW-15, 5/5/2022 2:04:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00074	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	1.1	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	3.9	ug/L	3.0	0.50	EPA-200.8	ND		3
Total Recoverable Iron	45	ug/L	50	30	EPA-200.7	ND	J	4
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		3

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/16/22 23:00	05/17/22 16:44		KB1	IC-4	1	B139776	No Prep
2	EPA-200.8	05/12/22 11:35	05/13/22 12:19		KHS	PE-EL4	1	B139523	EPA 200.2
3	EPA-200.8	05/12/22 11:35	05/12/22 23:54		ARD	PE-EL2	1	B139523	EPA 200.2
4	EPA-200.7	05/12/22 10:40	05/13/22 17:20		JRG	PE-OP4	1	B139520	EPA 200.2

DCN = Data Continuation Number

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-08	Client Sample Name:	NASA/JPL, EB-9-050522, 5/5/2022 3:00:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-08	Client Sample Name:	NASA/JPL, EB-9-050522, 5/5/2022 3:00:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210682-08	Client Sample Name: NASA/JPL, EB-9-050522, 5/5/2022 3:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.9	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	92.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22 14:46	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210682-08	Client Sample Name: NASA/JPL, EB-9-050522, 5/5/2022 3:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22	14:46	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number





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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210682-08	<b>Client Sample Name:</b> NASA/JPL, EB-9-050522, 5/5/2022 3:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/10/22 06:00	05/10/22 11:00		ADC	MS-V16	1	B139271	EPA 524.2

DCN = Data Continuation Number

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210682-08	Client Sample Name:	NASA/JPL, EB-9-050522, 5/5/2022 3:00:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	0.043	mg/L	0.10	0.014	EPA-200.7	0.024	J	1
Total Recoverable Magnesium	0.022	mg/L	0.050	0.019	EPA-200.7	0.026	J	1
Total Recoverable Sodium	ND	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	6.6	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	5.4	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	0.20	mg/L	0.50	0.13	EPA-300.0	ND	J	3
Nitrate as N	0.080	mg/L	0.10	0.024	EPA-300.0	ND	J	3
Sulfate	0.22	mg/L	1.0	0.14	EPA-300.0	ND	J	3
pH	6.98	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	4.0	mg/L	6.7	3.3	EPA-160.1	ND	J	5
Nitrite as N	0.016	mg/L	0.050	0.010	EPA-353.2	ND	J	6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/12/22 10:40	05/13/22 16:51		JRG	PE-OP4	1	B139519	EPA 200.2
2	SM-2320B	05/11/22 07:00	05/11/22 15:00		RML	MET-1	1	B138216	No Prep
3	EPA-300.0	05/06/22 10:00	05/06/22 15:31		JAT	IC2	1	B139040	No Prep
4	EPA-150.1	05/11/22 07:00	05/11/22 15:00		RML	MET-1	1	B138216	No Prep
5	EPA-160.1	05/10/22 14:00	05/10/22 14:00		CAD	MANUAL	0.667	B139328	No Prep
6	EPA-353.2	05/07/22 01:41	05/07/22 01:47		KB1	KONE-1	1	B139321	No Prep
7	EPA-314.0	05/16/22 13:00	05/16/22 18:08		KB1	IC6	1	B139762	No Prep

DCN = Data Continuation Number

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2210682-08	<b>Client Sample Name:</b> NASA/JPL, EB-9-050522, 5/5/2022 3:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00013	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		2
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		3
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		2

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/16/22 23:00	05/17/22 16:53		KB1	IC-4	1	B139776	No Prep
2	EPA-200.8	05/12/22 11:25	05/12/22 21:34		AK1	PE-EL4	1	B139522	EPA 200.2
3	EPA-200.7	05/12/22 10:40	05/13/22 16:51		JRG	PE-OP4	1	B139519	EPA 200.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-09	Client Sample Name:	NASA/JPL, DUP-6-2Q22, 5/5/2022 1:17:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-09	Client Sample Name:	NASA/JPL, DUP-6-2Q22, 5/5/2022 1:17:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210682-09	Client Sample Name: NASA/JPL, DUP-6-2Q22, 5/5/2022 1:17:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.3	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.6	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22 15:10	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210682-09	Client Sample Name: NASA/JPL, DUP-6-2Q22, 5/5/2022 1:17:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22	15:10	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210682-09	<b>Client Sample Name:</b> NASA/JPL, DUP-6-2Q22, 5/5/2022 1:17:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/10/22 06:00	05/10/22	11:26	ADC	MS-V16	1	B139271	EPA 524.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210682-09	Client Sample Name:	NASA/JPL, DUP-6-2Q22, 5/5/2022 1:17:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	62	mg/L	0.10	0.014	EPA-200.7	0.018		1
Total Recoverable Magnesium	19	mg/L	0.050	0.019	EPA-200.7	0.024		1
Total Recoverable Sodium	24	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	3.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	210	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	180	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	34	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	5.6	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	56	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	7.60	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	360	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/12/22 10:40	05/13/22 17:33		JRG	PE-OP4	1	B139520	EPA 200.2
2	SM-2320B	05/11/22 07:00	05/11/22 15:08		RML	MET-1	1	B138216	No Prep
3	EPA-300.0	05/06/22 10:00	05/06/22 16:12		JAT	IC2	1	B139040	No Prep
4	EPA-150.1	05/11/22 07:00	05/11/22 15:08		RML	MET-1	1	B138216	No Prep
5	EPA-160.1	05/10/22 14:00	05/10/22 14:00		CAD	MANUAL	2	B139328	No Prep
6	EPA-353.2	05/07/22 01:41	05/07/22 01:47		KB1	KONE-1	1	B139321	No Prep
7	EPA-314.0	05/16/22 13:00	05/16/22 18:24		KB1	IC6	1	B139762	No Prep

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210682-09	Client Sample Name: NASA/JPL, DUP-6-2Q22, 5/5/2022 1:17:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.0013	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	0.97	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	29	ug/L	3.0	0.50	EPA-200.8	ND		3
Total Recoverable Iron	550	ug/L	50	30	EPA-200.7	ND		4
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		3

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/16/22 23:00	05/17/22 17:07		KB1	IC-4	1	B139776	No Prep
2	EPA-200.8	05/12/22 11:35	05/13/22 12:41		KHS	PE-EL4	1	B139523	EPA 200.2
3	EPA-200.8	05/12/22 11:35	05/13/22 00:19		ARD	PE-EL2	1	B139523	EPA 200.2
4	EPA-200.7	05/12/22 10:40	05/13/22 17:33		JRG	PE-OP4	1	B139520	EPA 200.2

DCN = Data Continuation Number

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210682-10		Client Sample Name: NASA/JPL, DUP-7-2Q22, 5/5/2022 2:19:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210682-10	Client Sample Name:	NASA/JPL, DUP-7-2Q22, 5/5/2022 2:19:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210682-10      **Client Sample Name:** NASA/JPL, DUP-7-2Q22, 5/5/2022 2:19:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 15:35	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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 Project Number: [none]  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210682-10	Client Sample Name: NASA/JPL, DUP-7-2Q22, 5/5/2022 2:19:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	15:35	MGC	MS-V5	1	B139140	EPA 524.2

DCN = Data Continuation Number



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**Reported:** 06/24/2022 11:42  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210682-10	<b>Client Sample Name:</b> NASA/JPL, DUP-7-2Q22, 5/5/2022 2:19:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/10/22 06:00	05/10/22 18:51	ADC	MS-V16	1	B139271	EPA 524.2

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210682-10	Client Sample Name:	NASA/JPL, DUP-7-2Q22, 5/5/2022 2:19:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	56	mg/L	0.10	0.014	EPA-200.7	0.018		1
Total Recoverable Magnesium	17	mg/L	0.050	0.019	EPA-200.7	0.024		1
Total Recoverable Sodium	27	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	2.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	230	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	190	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	23	mg/L	0.50	0.13	EPA-300.0	ND		3
Nitrate as N	1.3	mg/L	0.10	0.024	EPA-300.0	ND		3
Sulfate	49	mg/L	1.0	0.14	EPA-300.0	ND		3
pH	7.63	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	350	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/12/22 10:40	05/13/22 17:40		JRG	PE-OP4	1	B139520	EPA 200.2
2	SM-2320B	05/11/22 07:00	05/11/22 15:49		RML	MET-1	1	B138217	No Prep
3	EPA-300.0	05/06/22 10:00	05/06/22 16:33		JAT	IC2	1	B139040	No Prep
4	EPA-150.1	05/11/22 07:00	05/11/22 15:49		RML	MET-1	1	B138217	No Prep
5	EPA-160.1	05/10/22 14:00	05/10/22 14:00		CAD	MANUAL	2	B139328	No Prep
6	EPA-353.2	05/07/22 01:41	05/07/22 01:47		KB1	KONE-1	1	B139321	No Prep
7	EPA-314.0	05/16/22 13:00	05/16/22 18:39		KB1	IC6	1	B139762	No Prep

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 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

**BCL Sample ID:** 2210682-10      **Client Sample Name:** NASA/JPL, DUP-7-2Q22, 5/5/2022 2:19:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00076	mg/L	0.00020	0.000020	EPA-218.6	ND		1
Total Recoverable Arsenic	0.83	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	3.4	ug/L	3.0	0.50	EPA-200.8	ND		3
Total Recoverable Iron	44	ug/L	50	30	EPA-200.7	ND	J	4
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		3

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/16/22 23:00	05/17/22 17:46		KB1	IC-4	1	B139776	No Prep
2	EPA-200.8	05/12/22 11:35	05/13/22 12:43		KHS	PE-EL4	1	B139523	EPA 200.2
3	EPA-200.8	05/12/22 11:35	05/13/22 00:21		ARD	PE-EL2	1	B139523	EPA 200.2
4	EPA-200.7	05/12/22 10:40	05/13/22 17:40		JRG	PE-OP4	1	B139520	EPA 200.2

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 Project Number: [none]  
 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: B139140</b>						
Benzene	B139140-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B139140-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B139140-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B139140-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B139140-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B139140-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B139140-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B139140-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B139140-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B139140-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B139140-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B139140-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B139140-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B139140-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B139140-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B139140-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B139140-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B139140-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B139140-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B139140-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B139140-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B139140-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B139140-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B139140-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B139140-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B139140-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B139140-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B139140-BLK1	ND	ug/L	0.50	0.14	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B139140</b>						
trans-1,3-Dichloropropene	B139140-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B139140-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B139140-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B139140-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B139140-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B139140-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B139140-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B139140-BLK1	ND	ug/L	0.50	0.12	
Styrene	B139140-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B139140-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B139140-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B139140-BLK1	ND	ug/L	0.50	0.23	
Toluene	B139140-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B139140-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B139140-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B139140-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B139140-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B139140-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B139140-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B139140-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B139140-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B139140-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B139140-BLK1	ND	ug/L	0.50	0.18	
Acetone	B139140-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B139140-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B139140-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B139140-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B139140-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B139140-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B139140-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B139140-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B139140-BLK1	ND	ug/L	4.0	1.3	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B139140</b>						
Ethyl t-butyl ether	B139140-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B139140-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B139140-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B139140-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B139140-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B139140-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B139140-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B139140-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B139140-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B139140-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B139140-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B139140-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B139140-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B139140-BLK1</b>	<b>100</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B139140-BLK1</b>	<b>98.4</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B139140-BLK1</b>	<b>96.3</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>QC Batch ID: B139141</b>						
Benzene	B139141-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B139141-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B139141-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B139141-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B139141-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B139141-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B139141-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B139141-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B139141-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B139141-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B139141-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B139141-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B139141-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B139141-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B139141-BLK1	ND	ug/L	0.50	0.093	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B139141</b>						
Dibromochloromethane	B139141-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B139141-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B139141-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B139141-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B139141-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B139141-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B139141-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B139141-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B139141-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B139141-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B139141-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B139141-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B139141-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B139141-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B139141-BLK1	ND	ug/L	0.50	0.14	
trans-1,3-Dichloropropene	B139141-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B139141-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B139141-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B139141-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B139141-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B139141-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B139141-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B139141-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B139141-BLK1	ND	ug/L	0.50	0.12	
Styrene	B139141-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B139141-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B139141-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B139141-BLK1	ND	ug/L	0.50	0.23	
Toluene	B139141-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.15	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B139141</b>						
1,1,1-Trichloroethane	B139141-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B139141-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B139141-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B139141-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B139141-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B139141-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B139141-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B139141-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B139141-BLK1	ND	ug/L	0.50	0.18	
Acetone	B139141-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B139141-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B139141-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B139141-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B139141-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B139141-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B139141-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B139141-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B139141-BLK1	ND	ug/L	4.0	1.3	
Ethyl t-butyl ether	B139141-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B139141-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B139141-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B139141-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B139141-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B139141-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B139141-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B139141-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B139141-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B139141-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B139141-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B139141-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B139141-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B139141-BLK1</b>	<b>102</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B139141-BLK1</b>	<b>98.1</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B139141-BLK1</b>	<b>94.7</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B139142</b>						
Benzene	B139142-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B139142-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B139142-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B139142-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B139142-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B139142-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B139142-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B139142-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B139142-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B139142-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B139142-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B139142-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B139142-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B139142-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B139142-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B139142-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B139142-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B139142-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B139142-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B139142-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B139142-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B139142-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B139142-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B139142-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B139142-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B139142-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B139142-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B139142-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B139142-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B139142-BLK1	ND	ug/L	0.50	0.14	

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 Project Number: [none]  
 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: B139142</b>						
trans-1,3-Dichloropropene	B139142-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B139142-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B139142-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B139142-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B139142-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B139142-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B139142-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B139142-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B139142-BLK1	ND	ug/L	0.50	0.12	
Styrene	B139142-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B139142-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B139142-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B139142-BLK1	ND	ug/L	0.50	0.23	
Toluene	B139142-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B139142-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B139142-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B139142-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B139142-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B139142-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B139142-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B139142-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B139142-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B139142-BLK1	ND	ug/L	0.50	0.18	
Acetone	B139142-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B139142-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B139142-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B139142-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B139142-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B139142-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B139142-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B139142-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B139142-BLK1	ND	ug/L	4.0	1.3	

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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: B139142</b>						
Ethyl t-butyl ether	B139142-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B139142-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B139142-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B139142-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B139142-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B139142-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B139142-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B139142-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B139142-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B139142-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B139142-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B139142-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B139142-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B139142-BLK1</b>	<b>102</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B139142-BLK1</b>	<b>98.8</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B139142-BLK1</b>	<b>95.9</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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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: B139140</b>										
Benzene	B139140-BS1	LCS	23.440	25.000	ug/L	93.8		70 - 130		
Bromodichloromethane	B139140-BS1	LCS	24.350	25.000	ug/L	97.4		70 - 130		
Chlorobenzene	B139140-BS1	LCS	22.670	25.000	ug/L	90.7		70 - 130		
Chloroethane	B139140-BS1	LCS	24.740	25.000	ug/L	99.0		70 - 130		
1,4-Dichlorobenzene	B139140-BS1	LCS	22.600	25.000	ug/L	90.4		70 - 130		
1,1-Dichloroethane	B139140-BS1	LCS	24.320	25.000	ug/L	97.3		70 - 130		
1,1-Dichloroethene	B139140-BS1	LCS	25.970	25.000	ug/L	104		70 - 130		
Toluene	B139140-BS1	LCS	23.510	25.000	ug/L	94.0		70 - 130		
Trichloroethene	B139140-BS1	LCS	24.310	25.000	ug/L	97.2		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B139140-BS1	LCS	10.230	10.000	ug/L	102		75 - 125		
Toluene-d8 (Surrogate)	B139140-BS1	LCS	10.080	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	B139140-BS1	LCS	10.070	10.000	ug/L	101		80 - 120		
<b>QC Batch ID: B139141</b>										
Benzene	B139141-BS1	LCS	23.210	25.000	ug/L	92.8		70 - 130		
Bromodichloromethane	B139141-BS1	LCS	24.160	25.000	ug/L	96.6		70 - 130		
Chlorobenzene	B139141-BS1	LCS	23.030	25.000	ug/L	92.1		70 - 130		
Chloroethane	B139141-BS1	LCS	24.120	25.000	ug/L	96.5		70 - 130		
1,4-Dichlorobenzene	B139141-BS1	LCS	22.370	25.000	ug/L	89.5		70 - 130		
1,1-Dichloroethane	B139141-BS1	LCS	22.690	25.000	ug/L	90.8		70 - 130		
1,1-Dichloroethene	B139141-BS1	LCS	24.820	25.000	ug/L	99.3		70 - 130		
Toluene	B139141-BS1	LCS	23.500	25.000	ug/L	94.0		70 - 130		
Trichloroethene	B139141-BS1	LCS	24.530	25.000	ug/L	98.1		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B139141-BS1	LCS	10.240	10.000	ug/L	102		75 - 125		
Toluene-d8 (Surrogate)	B139141-BS1	LCS	10.150	10.000	ug/L	102		80 - 120		
4-Bromofluorobenzene (Surrogate)	B139141-BS1	LCS	9.9200	10.000	ug/L	99.2		80 - 120		
<b>QC Batch ID: B139142</b>										
Benzene	B139142-BS1	LCS	25.220	25.000	ug/L	101		70 - 130		
Bromodichloromethane	B139142-BS1	LCS	26.060	25.000	ug/L	104		70 - 130		
Chlorobenzene	B139142-BS1	LCS	24.630	25.000	ug/L	98.5		70 - 130		
Chloroethane	B139142-BS1	LCS	25.750	25.000	ug/L	103		70 - 130		
1,4-Dichlorobenzene	B139142-BS1	LCS	23.790	25.000	ug/L	95.2		70 - 130		
1,1-Dichloroethane	B139142-BS1	LCS	26.300	25.000	ug/L	105		70 - 130		
1,1-Dichloroethene	B139142-BS1	LCS	27.990	25.000	ug/L	112		70 - 130		

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 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B139142</b>										
Toluene	B139142-BS1	LCS	24.560	25.000	ug/L	98.2		70 - 130		
Trichloroethene	B139142-BS1	LCS	27.050	25.000	ug/L	108		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B139142-BS1	LCS	10.130	10.000	ug/L	101		75 - 125		
Toluene-d8 (Surrogate)	B139142-BS1	LCS	9.9400	10.000	ug/L	99.4		80 - 120		
4-Bromofluorobenzene (Surrogate)	B139142-BS1	LCS	9.9000	10.000	ug/L	99.0		80 - 120		

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139140</b>		Used client sample: N									
Benzene	MS	2210539-05	ND	23.980	25.000	ug/L		95.9		70 - 130	
	MSD	2210539-05	ND	23.740	25.000	ug/L	1.0	95.0	20	70 - 130	
Bromodichloromethane	MS	2210539-05	ND	25.250	25.000	ug/L		101		70 - 130	
	MSD	2210539-05	ND	25.440	25.000	ug/L	0.7	102	20	70 - 130	
Chlorobenzene	MS	2210539-05	ND	23.660	25.000	ug/L		94.6		70 - 130	
	MSD	2210539-05	ND	23.050	25.000	ug/L	2.6	92.2	20	70 - 130	
Chloroethane	MS	2210539-05	ND	24.750	25.000	ug/L		99.0		70 - 130	
	MSD	2210539-05	ND	24.710	25.000	ug/L	0.2	98.8	20	70 - 130	
1,4-Dichlorobenzene	MS	2210539-05	ND	22.990	25.000	ug/L		92.0		70 - 130	
	MSD	2210539-05	ND	22.580	25.000	ug/L	1.8	90.3	20	70 - 130	
1,1-Dichloroethane	MS	2210539-05	ND	24.880	25.000	ug/L		99.5		70 - 130	
	MSD	2210539-05	ND	24.690	25.000	ug/L	0.8	98.8	20	70 - 130	
1,1-Dichloroethene	MS	2210539-05	ND	26.450	25.000	ug/L		106		70 - 130	
	MSD	2210539-05	ND	26.130	25.000	ug/L	1.2	105	20	70 - 130	
Toluene	MS	2210539-05	ND	23.660	25.000	ug/L		94.6		70 - 130	
	MSD	2210539-05	ND	23.670	25.000	ug/L	0.0	94.7	20	70 - 130	
Trichloroethene	MS	2210539-05	ND	24.300	25.000	ug/L		97.2		70 - 130	
	MSD	2210539-05	ND	24.370	25.000	ug/L	0.3	97.5	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2210539-05	ND	10.050	10.000	ug/L		100		75 - 125	
	MSD	2210539-05	ND	9.9500	10.000	ug/L	1.0	99.5		75 - 125	
Toluene-d8 (Surrogate)	MS	2210539-05	ND	10.000	10.000	ug/L		100		80 - 120	
	MSD	2210539-05	ND	10.000	10.000	ug/L	0	100		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2210539-05	ND	9.9200	10.000	ug/L		99.2		80 - 120	
	MSD	2210539-05	ND	9.8700	10.000	ug/L	0.5	98.7		80 - 120	

<b>QC Batch ID: B139141</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
Benzene	MS	2210682-01	ND	23.400	25.000	ug/L		93.6		70 - 130	
	MSD	2210682-01	ND	25.060	25.000	ug/L	6.9	100	20	70 - 130	
Bromodichloromethane	MS	2210682-01	ND	24.810	25.000	ug/L		99.2		70 - 130	
	MSD	2210682-01	ND	26.490	25.000	ug/L	6.5	106	20	70 - 130	
Chlorobenzene	MS	2210682-01	ND	23.470	25.000	ug/L		93.9		70 - 130	
	MSD	2210682-01	ND	23.980	25.000	ug/L	2.1	95.9	20	70 - 130	
Chloroethane	MS	2210682-01	ND	23.230	25.000	ug/L		92.9		70 - 130	
	MSD	2210682-01	ND	24.860	25.000	ug/L	6.8	99.4	20	70 - 130	
1,4-Dichlorobenzene	MS	2210682-01	ND	22.820	25.000	ug/L		91.3		70 - 130	
	MSD	2210682-01	ND	23.480	25.000	ug/L	2.9	93.9	20	70 - 130	
1,1-Dichloroethane	MS	2210682-01	ND	23.140	25.000	ug/L		92.6		70 - 130	
	MSD	2210682-01	ND	24.870	25.000	ug/L	7.2	99.5	20	70 - 130	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139141</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
1,1-Dichloroethene	MS	2210682-01	ND	25.450	25.000	ug/L		102		70 - 130	
	MSD	2210682-01	ND	26.720	25.000	ug/L	4.9	107	20	70 - 130	
Toluene	MS	2210682-01	ND	23.380	25.000	ug/L		93.5		70 - 130	
	MSD	2210682-01	ND	24.900	25.000	ug/L	6.3	99.6	20	70 - 130	
Trichloroethene	MS	2210682-01	ND	24.520	25.000	ug/L		98.1		70 - 130	
	MSD	2210682-01	ND	25.810	25.000	ug/L	5.1	103	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2210682-01	ND	10.000	10.000	ug/L		100		75 - 125	
	MSD	2210682-01	ND	9.9400	10.000	ug/L	0.6	99.4		75 - 125	
Toluene-d8 (Surrogate)	MS	2210682-01	ND	9.8500	10.000	ug/L		98.5		80 - 120	
	MSD	2210682-01	ND	9.7900	10.000	ug/L	0.6	97.9		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2210682-01	ND	9.8700	10.000	ug/L		98.7		80 - 120	
	MSD	2210682-01	ND	9.6700	10.000	ug/L	2.0	96.7		80 - 120	
<b>QC Batch ID: B139142</b>		Used client sample: Y - Description: MW-15, 05/05/2022 14:04									
Benzene	MS	2210682-07	ND	24.710	25.000	ug/L		98.8		70 - 130	
	MSD	2210682-07	ND	24.410	25.000	ug/L	1.2	97.6	20	70 - 130	
Bromodichloromethane	MS	2210682-07	ND	26.250	25.000	ug/L		105		70 - 130	
	MSD	2210682-07	ND	26.260	25.000	ug/L	0.0	105	20	70 - 130	
Chlorobenzene	MS	2210682-07	ND	24.410	25.000	ug/L		97.6		70 - 130	
	MSD	2210682-07	ND	23.520	25.000	ug/L	3.7	94.1	20	70 - 130	
Chloroethane	MS	2210682-07	ND	25.420	25.000	ug/L		102		70 - 130	
	MSD	2210682-07	ND	24.490	25.000	ug/L	3.7	98.0	20	70 - 130	
1,4-Dichlorobenzene	MS	2210682-07	ND	24.270	25.000	ug/L		97.1		70 - 130	
	MSD	2210682-07	ND	23.210	25.000	ug/L	4.5	92.8	20	70 - 130	
1,1-Dichloroethane	MS	2210682-07	ND	25.250	25.000	ug/L		101		70 - 130	
	MSD	2210682-07	ND	25.000	25.000	ug/L	1.0	100	20	70 - 130	
1,1-Dichloroethene	MS	2210682-07	ND	27.060	25.000	ug/L		108		70 - 130	
	MSD	2210682-07	ND	26.200	25.000	ug/L	3.2	105	20	70 - 130	
Toluene	MS	2210682-07	ND	24.800	25.000	ug/L		99.2		70 - 130	
	MSD	2210682-07	ND	24.120	25.000	ug/L	2.8	96.5	20	70 - 130	
Trichloroethene	MS	2210682-07	ND	25.580	25.000	ug/L		102		70 - 130	
	MSD	2210682-07	ND	24.860	25.000	ug/L	2.9	99.4	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2210682-07	ND	9.9600	10.000	ug/L		99.6		75 - 125	
	MSD	2210682-07	ND	10.190	10.000	ug/L	2.3	102		75 - 125	
Toluene-d8 (Surrogate)	MS	2210682-07	ND	10.070	10.000	ug/L		101		80 - 120	
	MSD	2210682-07	ND	10.030	10.000	ug/L	0.4	100		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2210682-07	ND	9.8000	10.000	ug/L		98.0		80 - 120	
	MSD	2210682-07	ND	9.7100	10.000	ug/L	0.9	97.1		80 - 120	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B139140</b>						
1-Chlorobutane	B139140-BLK1	0	ug/L			
2-Nitropropane	B139140-BLK1	0	ug/L			
Chloroacetonitrile	B139140-BLK1	0	ug/L			
Methyl acrylate	B139140-BLK1	0	ug/L			
Nitrobenzene	B139140-BLK1	0	ug/L			
1,1-Dichloropropanone	B139140-BLK1	0	ug/L			
<b>QC Batch ID: B139141</b>						
Chloroacetonitrile	B139141-BLK1	0	ug/L			
1,1-Dichloropropanone	B139141-BLK1	0	ug/L			
2-Nitropropane	B139141-BLK1	0	ug/L			
Methyl acrylate	B139141-BLK1	0	ug/L			
Nitrobenzene	B139141-BLK1	0	ug/L			
1-Chlorobutane	B139141-BLK1	0	ug/L			
<b>QC Batch ID: B139142</b>						
Nitrobenzene	B139142-BLK1	0	ug/L			
1,1-Dichloropropanone	B139142-BLK1	0	ug/L			
1-Chlorobutane	B139142-BLK1	0	ug/L			
2-Nitropropane	B139142-BLK1	0	ug/L			
Chloroacetonitrile	B139142-BLK1	0	ug/L			
Methyl acrylate	B139142-BLK1	0	ug/L			

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 Project Number: [none]  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B139271</b>						
1,2,3-Trichloropropane	B139271-BLK1	ND	ug/L	0.0050	0.0010	
<b>QC Batch ID: B139272</b>						
1,2,3-Trichloropropane	B139272-BLK1	ND	ug/L	0.0050	0.0010	

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## DHS Low Level 1,2,3-TCP by SRL 524M

### 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: B139271</b>										
1,2,3-Trichloropropane	B139271-BS1	LCS	0.050170	0.050000	ug/L	100		80 - 120		
<b>QC Batch ID: B139272</b>										
1,2,3-Trichloropropane	B139272-BS1	LCS	0.052540	0.050000	ug/L	105		80 - 120		

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## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B139271</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
1,2,3-Trichloropropane	MS	2210682-01	ND	0.040350	0.050000	ug/L		80.7		70 - 130	
	MSD	2210682-01	ND	0.046240	0.050000	ug/L	13.6	92.5	30	70 - 130	
<b>QC Batch ID: B139272</b>		Used client sample: Y - Description: MW-15, 05/05/2022 14:04									
1,2,3-Trichloropropane	MS	2210682-07	ND	0.057980	0.050000	ug/L		116		70 - 130	
	MSD	2210682-07	ND	0.047530	0.050000	ug/L	19.8	95.1	30	70 - 130	

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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: B138216</b>						
Bicarbonate	B138216-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138216-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138216-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B138217</b>						
Bicarbonate	B138217-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138217-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138217-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B139040</b>						
Chloride	B139040-BLK1	ND	mg/L	0.50	0.13	
Nitrate as N	B139040-BLK1	ND	mg/L	0.10	0.024	
Sulfate	B139040-BLK1	ND	mg/L	1.0	0.14	
<b>QC Batch ID: B139321</b>						
Nitrite as N	B139321-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B139328</b>						
Total Dissolved Solids @ 180 C	B139328-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B139519</b>						
<b>Total Recoverable Calcium</b>	<b>B139519-BLK1</b>	<b>0.024367</b>	<b>mg/L</b>	<b>0.10</b>	<b>0.014</b>	<b>J</b>
<b>Total Recoverable Magnesium</b>	<b>B139519-BLK1</b>	<b>0.025808</b>	<b>mg/L</b>	<b>0.050</b>	<b>0.019</b>	<b>J</b>
Total Recoverable Sodium	B139519-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B139519-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B139520</b>						
<b>Total Recoverable Calcium</b>	<b>B139520-BLK1</b>	<b>0.017850</b>	<b>mg/L</b>	<b>0.10</b>	<b>0.014</b>	<b>J</b>
<b>Total Recoverable Magnesium</b>	<b>B139520-BLK1</b>	<b>0.023540</b>	<b>mg/L</b>	<b>0.050</b>	<b>0.019</b>	<b>J</b>
Total Recoverable Sodium	B139520-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B139520-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B139762</b>						
Perchlorate	B139762-BLK1	ND	ug/L	2.0	0.81	

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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 Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B138216</b>										
Total Alkalinity as CaCO3	B138216-BS3	LCS	101.79	100.00	mg/L	102		90 - 110		
pH	B138216-BS2	LCS	7.0300	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B138217</b>										
Total Alkalinity as CaCO3	B138217-BS3	LCS	100.29	100.00	mg/L	100		90 - 110		
pH	B138217-BS2	LCS	7.0300	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B139040</b>										
Chloride	B139040-BS1	LCS	51.286	50.000	mg/L	103		90 - 110		
Nitrate as N	B139040-BS1	LCS	5.0870	5.0000	mg/L	102		90 - 110		
Sulfate	B139040-BS1	LCS	101.18	100.00	mg/L	101		90 - 110		
<b>QC Batch ID: B139321</b>										
Nitrite as N	B139321-BS1	LCS	0.49361	0.50000	mg/L	98.7		90 - 110		
<b>QC Batch ID: B139328</b>										
Total Dissolved Solids @ 180 C	B139328-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
	B139328-BSD1	LCSD	605.00	586.00	mg/L	103	2.5	90 - 110	200	
<b>QC Batch ID: B139519</b>										
Total Recoverable Calcium	B139519-BS1	LCS	9.8522	10.000	mg/L	98.5		85 - 115		
	B139519-BSD1	LCSD	9.7605	10.000	mg/L	97.6	0.9	85 - 115	20	
Total Recoverable Magnesium	B139519-BS1	LCS	9.8074	10.000	mg/L	98.1		85 - 115		
	B139519-BSD1	LCSD	9.8202	10.000	mg/L	98.2	0.1	85 - 115	20	
Total Recoverable Sodium	B139519-BS1	LCS	9.6752	10.000	mg/L	96.8		85 - 115		
	B139519-BSD1	LCSD	9.5299	10.000	mg/L	95.3	1.5	85 - 115	20	
Total Recoverable Potassium	B139519-BS1	LCS	9.4599	10.000	mg/L	94.6		85 - 115		
	B139519-BSD1	LCSD	9.4193	10.000	mg/L	94.2	0.4	85 - 115	20	
<b>QC Batch ID: B139520</b>										
Total Recoverable Calcium	B139520-BS1	LCS	9.7905	10.000	mg/L	97.9		85 - 115		
Total Recoverable Magnesium	B139520-BS1	LCS	9.5324	10.000	mg/L	95.3		85 - 115		
Total Recoverable Sodium	B139520-BS1	LCS	9.6269	10.000	mg/L	96.3		85 - 115		
Total Recoverable Potassium	B139520-BS1	LCS	9.4314	10.000	mg/L	94.3		85 - 115		
<b>QC Batch ID: B139762</b>										
Perchlorate	B139762-BS1	LCS	10.077	10.000	ug/L	101		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			
								Percent Recovery	RPD	Percent Recovery	Lab Quails
<b>QC Batch ID: B138216</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
Bicarbonate	DUP	2210682-01	268.53	267.44		mg/L	0.4			10	
Carbonate	DUP	2210682-01	ND	ND		mg/L				10	
Total Alkalinity as CaCO3	DUP	2210682-01	220.24	219.34		mg/L	0.4			10	
pH	DUP	2210682-01	7.8800	7.6400		pH Units	3.1			20	
<b>QC Batch ID: B138217</b>		Used client sample: Y - Description: DUP-7-2Q22, 05/05/2022 14:19									
Bicarbonate	DUP	2210682-10	232.48	233.39		mg/L	0.4			10	
Carbonate	DUP	2210682-10	ND	ND		mg/L				10	
Total Alkalinity as CaCO3	DUP	2210682-10	190.67	191.42		mg/L	0.4			10	
pH	DUP	2210682-10	7.6300	7.6500		pH Units	0.3			20	
<b>QC Batch ID: B139040</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
Chloride	DUP	2210682-01	28.912	28.994		mg/L	0.3			10	
	MS	2210682-01	28.912	84.592	50.505	mg/L		110			80 - 120
	MSD	2210682-01	28.912	84.581	50.505	mg/L	0.0	110	10		80 - 120
Nitrate as N	DUP	2210682-01	0.54900	0.54200		mg/L	1.3			10	
	MS	2210682-01	0.54900	5.7192	5.0505	mg/L		102			80 - 120
	MSD	2210682-01	0.54900	5.7374	5.0505	mg/L	0.3	103	10		80 - 120
Sulfate	DUP	2210682-01	50.988	51.232		mg/L	0.5			10	
	MS	2210682-01	50.988	161.59	101.01	mg/L		110			80 - 120
	MSD	2210682-01	50.988	161.17	101.01	mg/L	0.3	109	10		80 - 120
<b>QC Batch ID: B139321</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
Nitrite as N	DUP	2210682-01	ND	ND		mg/L				10	
	MS	2210682-01	ND	0.52383	0.52632	mg/L		99.5			90 - 110
	MSD	2210682-01	ND	0.52761	0.52632	mg/L	0.7	100	10		90 - 110
<b>QC Batch ID: B139328</b>		Used client sample: Y - Description: MW-15, 05/05/2022 14:04									
Total Dissolved Solids @ 180 C	DUP	2210682-07	348.00	342.00		mg/L	1.7			10	
<b>QC Batch ID: B139519</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
Total Recoverable Calcium	DUP	2210682-01	65.507	66.017		mg/L	0.8			20	
	MS	2210682-01	65.507	76.096	10.000	mg/L		106			75 - 125
	MSD	2210682-01	65.507	74.291	10.000	mg/L	2.4	87.8	20		75 - 125
Total Recoverable Magnesium	DUP	2210682-01	19.196	19.384		mg/L	1.0			20	
	MS	2210682-01	19.196	31.361	10.000	mg/L		122			75 - 125
	MSD	2210682-01	19.196	28.570	10.000	mg/L	9.3	93.7	20		75 - 125
Total Recoverable Sodium	DUP	2210682-01	29.092	29.233		mg/L	0.5			20	
	MS	2210682-01	29.092	39.064	10.000	mg/L		99.7			75 - 125
	MSD	2210682-01	29.092	38.152	10.000	mg/L	2.4	90.6	20		75 - 125

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B139519</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
Total Recoverable Potassium	DUP	2210682-01	2.9920	3.0353		mg/L	1.4		20		
	MS	2210682-01	2.9920	12.624	10.000	mg/L		96.3		75 - 125	
	MSD	2210682-01	2.9920	12.601	10.000	mg/L	0.2	96.1	20	75 - 125	
<b>QC Batch ID: B139520</b>		Used client sample: Y - Description: MW-15, 05/05/2022 14:04									
Total Recoverable Calcium	DUP	2210682-07	59.143	55.745		mg/L	5.9		20		
	MS	2210682-07	59.143	66.987	10.000	mg/L		78.4		75 - 125	
	MSD	2210682-07	59.143	66.343	10.000	mg/L	1.0	72.0	20	75 - 125	A03
Total Recoverable Magnesium	DUP	2210682-07	18.061	17.044		mg/L	5.8		20		
	MS	2210682-07	18.061	28.413	10.000	mg/L		104		75 - 125	
	MSD	2210682-07	18.061	29.215	10.000	mg/L	2.8	112	20	75 - 125	
Total Recoverable Sodium	DUP	2210682-07	27.901	26.290		mg/L	5.9		20		
	MS	2210682-07	27.901	36.743	10.000	mg/L		88.4		75 - 125	
	MSD	2210682-07	27.901	36.468	10.000	mg/L	0.8	85.7	20	75 - 125	
Total Recoverable Potassium	DUP	2210682-07	2.9242	2.7675		mg/L	5.5		20		
	MS	2210682-07	2.9242	12.393	10.000	mg/L		94.7		75 - 125	
	MSD	2210682-07	2.9242	12.380	10.000	mg/L	0.1	94.6	20	75 - 125	
<b>QC Batch ID: B139762</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
Perchlorate	DUP	2210682-01	ND	ND		ug/L			15		
	MS	2210682-01	ND	8.4309	10.101	ug/L		83.5		80 - 120	
	MSD	2210682-01	ND	8.5131	10.101	ug/L	1.0	84.3	15	80 - 120	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B139519</b>						
Total Recoverable Iron	B139519-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B139520</b>						
Total Recoverable Iron	B139520-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B139522</b>						
Total Recoverable Arsenic	B139522-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B139522-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B139522-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B139523</b>						
Total Recoverable Arsenic	B139523-BLK2	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B139523-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B139523-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B139776</b>						
Hexavalent Chromium	B139776-BLK1	ND	mg/L	0.00020	0.000020	

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 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: B139519</b>										
Total Recoverable Iron	B139519-BS1	LCS	1014.5	1000.0	ug/L	101		85 - 115		
	B139519-BSD1	LCSD	1005.1	1000.0	ug/L	101	0.9	85 - 115	20	
<b>QC Batch ID: B139520</b>										
Total Recoverable Iron	B139520-BS1	LCS	978.98	1000.0	ug/L	97.9		85 - 115		
<b>QC Batch ID: B139522</b>										
Total Recoverable Arsenic	B139522-BS1	LCS	103.63	100.00	ug/L	104		85 - 115		
	B139522-BSD1	LCSD	109.06	100.00	ug/L	109	5.1	85 - 115	20	
Total Recoverable Chromium	B139522-BS1	LCS	38.800	40.000	ug/L	97.0		85 - 115		
	B139522-BSD1	LCSD	40.860	40.000	ug/L	102	5.2	85 - 115	20	
Total Recoverable Lead	B139522-BS1	LCS	100.81	100.00	ug/L	101		85 - 115		
	B139522-BSD1	LCSD	105.08	100.00	ug/L	105	4.1	85 - 115	20	
<b>QC Batch ID: B139523</b>										
Total Recoverable Arsenic	B139523-BS2	LCS	92.259	100.00	ug/L	92.3		85 - 115		
Total Recoverable Chromium	B139523-BS1	LCS	39.956	40.000	ug/L	99.9		85 - 115		
Total Recoverable Lead	B139523-BS1	LCS	98.611	100.00	ug/L	98.6		85 - 115		
<b>QC Batch ID: B139776</b>										
Hexavalent Chromium	B139776-BS1	LCS	0.019676	0.020000	mg/L	98.4		90 - 110		

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Reported: 06/24/2022 11:42  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: [none]  
 Project Manager: David Conner

## Metals Analysis

### Quality Control Report - Precision & Accuracy

Constituent	Source Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139519</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
Total Recoverable Iron	DUP	2210682-01	ND	ND		ug/L			20		
	MS	2210682-01	ND	1002.9	1000.0	ug/L		100		75 - 125	
	MSD	2210682-01	ND	987.37	1000.0	ug/L	1.6	98.7	20	75 - 125	
<b>QC Batch ID: B139520</b>		Used client sample: Y - Description: MW-15, 05/05/2022 14:04									
Total Recoverable Iron	DUP	2210682-07	44.693	42.088		ug/L	6.0		20		J
	MS	2210682-07	44.693	1024.4	1000.0	ug/L		98.0		75 - 125	
	MSD	2210682-07	44.693	1058.2	1000.0	ug/L	3.2	101	20	75 - 125	
<b>QC Batch ID: B139522</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
Total Recoverable Arsenic	DUP	2210682-01	1.3950	1.0530		ug/L	27.9		20		J,A02
	MS	2210682-01	1.3950	114.30	100.00	ug/L		113		70 - 130	
	MSD	2210682-01	1.3950	114.75	100.00	ug/L	0.4	113	20	70 - 130	
Total Recoverable Chromium	DUP	2210682-01	ND	0.52000		ug/L			20		J
	MS	2210682-01	ND	39.814	40.000	ug/L		99.5		70 - 130	
	MSD	2210682-01	ND	40.090	40.000	ug/L	0.7	100	20	70 - 130	
Total Recoverable Lead	DUP	2210682-01	ND	ND		ug/L			20		
	MS	2210682-01	ND	104.56	100.00	ug/L		105		70 - 130	
	MSD	2210682-01	ND	101.97	100.00	ug/L	2.5	102	20	70 - 130	
<b>QC Batch ID: B139523</b>		Used client sample: Y - Description: MW-15, 05/05/2022 14:04									
Total Recoverable Arsenic	DUP	2210682-07	1.1100	0.92700		ug/L	18.0		20		J
	MS	2210682-07	1.1100	102.48	100.00	ug/L		101		70 - 130	
	MSD	2210682-07	1.1100	103.46	100.00	ug/L	0.9	102	20	70 - 130	
Total Recoverable Chromium	DUP	2210682-07	3.9300	5.0800		ug/L	25.5		20		A02
	MS	2210682-07	3.9300	43.867	40.000	ug/L		99.8		70 - 130	
	MSD	2210682-07	3.9300	43.968	40.000	ug/L	0.2	100	20	70 - 130	
Total Recoverable Lead	DUP	2210682-07	ND	ND		ug/L			20		
	MS	2210682-07	ND	98.036	100.00	ug/L		98.0		70 - 130	
	MSD	2210682-07	ND	98.709	100.00	ug/L	0.7	98.7	20	70 - 130	
<b>QC Batch ID: B139776</b>		Used client sample: Y - Description: MW-1, 05/05/2022 11:35									
Hexavalent Chromium	DUP	2210682-01	0.000076000	0.000077000		mg/L	1.3		10		J
	MS	2210682-01	0.000076000	0.020359	0.020202	mg/L		100		90 - 110	
	MSD	2210682-01	0.000076000	0.020102	0.020202	mg/L	1.3	99.1	10	90 - 110	

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Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

**Reported:** 06/24/2022 11:42  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** [none]  
**Project Manager:** David Conner

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration was more than 4 times the spike level.
- A10 Detection and quantitation limits were raised due to matrix interference.
- S05 The sample holding time was exceeded.
- V11 The Continuing Calibration Verification (CCV) recovery was not within established control limits.

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Date of Report: 06/06/2022

David Conner

Tidewater Inc. - Powell  
3761 Attucks Drive  
Powell, OH 43065

Client Project: 2Q22  
BCL Project: JPL- GW Monitoring Wells-CLP  
BCL Work Order: 2210766  
Invoice ID: B449953

Enclosed are the results of analyses for samples received by the laboratory on 5/6/2022. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1001310238

Sincerely,

A handwritten signature in black ink that reads "Natalie Serda".

Contact Person: Natalie Serda  
Client Service Rep

A handwritten signature in black ink that reads "Stuart Buttram".

Stuart Buttram  
Operations Manager

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 2210766

Amended report, missing Carbonate on 2210766-05 & updated PM status on report.



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Case Narrative

### Sample Receipt

COC Number:

Samples received refrigerated to 0.7 °C

### Sample List

<u>Lab Number</u>	<u>Date/Time Sampled</u>	<u>Sample Name</u>
2210766-01	05/06/2022 07:00	TB-10-05062022
2210766-02	05/06/2022 10:30	MW-20-3
2210766-03	05/06/2022 11:15	MW-20-2
2210766-04	05/06/2022 11:30	Dup-8-2Q22
2210766-05	05/06/2022 14:05	EB-10-050622

### Requested Analysis

Calc, EPA-150.1, EPA-160.1, EPA-200.7 (TRM), EPA-200.8 (TRM), EPA-218.6, EPA-300.0, EPA-314.0, EPA-353.2, EPA-524.2, SM-2320B, SRL 524M

<u>Sample</u>	<u>Analyte</u>	<u>Flag</u>
<b>Sample Qualifier Summary</b>		
2210766-01	EPA-524.2	Bromomethane V11
2210766-01	EPA-524.2	Pentachloroethane V11
2210766-02	EPA-160.1	Total Dissolved Solids @ 180 C A10
2210766-02	EPA-524.2	Pentachloroethane V11
2210766-03	EPA-160.1	Total Dissolved Solids @ 180 C A10
2210766-03	EPA-524.2	Pentachloroethane V11
2210766-04	EPA-160.1	Total Dissolved Solids @ 180 C A10
2210766-04	EPA-524.2	Bromomethane V11
2210766-04	EPA-524.2	Pentachloroethane V11
2210766-05	EPA-524.2	Bromomethane V11
2210766-05	EPA-524.2	Pentachloroethane V11

### Holding Times

2210766-02	EPA-150.1	pH	S05
2210766-03	EPA-150.1	pH	S05
2210766-04	EPA-150.1	pH	S05
2210766-05	EPA-150.1	pH	S05



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Case Narrative

<u>Sample</u>		<u>Analyte</u>	<u>Flag</u>
<b>Method Blanks</b>			
B139141-BLK1	EPA-524.2	1,1-Dichloropropanone	0 ug/L
B139141-BLK1	EPA-524.2	1-Chlorobutane	0 ug/L
B139141-BLK1	EPA-524.2	2-Nitropropane	0 ug/L
B139141-BLK1	EPA-524.2	Chloroacetonitrile	0 ug/L
B139141-BLK1	EPA-524.2	Methyl acrylate	0 ug/L
B139141-BLK1	EPA-524.2	Nitrobenzene	0 ug/L
B139142-BLK1	EPA-524.2	1,1-Dichloropropanone	0 ug/L
B139142-BLK1	EPA-524.2	1-Chlorobutane	0 ug/L
B139142-BLK1	EPA-524.2	2-Nitropropane	0 ug/L
B139142-BLK1	EPA-524.2	Chloroacetonitrile	0 ug/L
B139142-BLK1	EPA-524.2	Methyl acrylate	0 ug/L
B139142-BLK1	EPA-524.2	Nitrobenzene	0 ug/L
B139143-BLK1	EPA-300.0	Chloride	0.16400 mg/L
B139143-BLK1	EPA-300.0	Nitrate as N	0.024000 mg/L
B139143-BLK1	EPA-300.0	Sulfate	0.21400 mg/L
B139519-BLK1	EPA-200.7 (TRM)	Total Recoverable Calcium	0.024367 mg/L
B139519-BLK1	EPA-200.7 (TRM)	Total Recoverable Magnesium	0.025808 mg/L
B139520-BLK1	EPA-200.7 (TRM)	Total Recoverable Calcium	0.017850 mg/L
B139520-BLK1	EPA-200.7 (TRM)	Total Recoverable Magnesium	0.023540 mg/L

### Matrix Spikes

B139520-MSD1	EPA-200.7 (TRM)	Total Recoverable Calcium	A03
B139523-DUP1	EPA-200.8 (TRM)	Total Recoverable Chromium	A02

### LCS

The LCS recoveries are within QC limits.

### Discussion

### Summary of Flags

A02	The difference between duplicate readings is less than the quantitation limit.
A03	The sample concentration was more than 4 times the spike level.
A10	Detection and quantitation limits were raised due to matrix interference.
S05	The sample holding time was exceeded.
V11	The Continuing Calibration Verification (CCV) recovery was not within established control limits.

**Chain of Custody**

ANALYTICAL SERVICES 41100 Atlas Ct. - Bakersfield, CA 93308 - 661.327.4911 - Fax: 661.327.1918 - www.pacelabs.com



<b>Client:</b> Tidewater, Inc. <b>Attn:</b> David Conner <b>Street Address:</b> 3761 Attucks Drive <b>City, State, Zip:</b> Powell, OH 43065 <b>Phone:</b> 626-298-5715 Fax: 614-792-2897 <b>Email:</b> david.conner@tideh2o.net <b>Work Order #:</b> 2210766		<b>Project #:</b> JPL-GW Monitoring <b>Project Name:</b> 2Q22 <b>BID#</b> <b>Sampler(s) Name:</b> Blaine Tech <b>Printed:</b> [Signature]		<b>Analysis Requested</b> VOCs EPA 524.2 TRM: Cr, Pb, As, Ca, Mg, K, Na, Fe Hexavalent Cr6 -218.6 (mg/L) Cl, NO3, NO2, SO4, Perch. CO3, HCO3, Alk., TDS, pH Orthophosphate 365.1 1,4 Dioxane 8270SIM NDMA 1625M Low-level 1,2,3-TCP		<b>Result Request **Surcharge</b> <input type="checkbox"/> STD <input type="checkbox"/> 5 Day** <input type="checkbox"/> 14 Day** <input type="checkbox"/> 3 Day** <input type="checkbox"/> 2 Day** <input type="checkbox"/> 1 Day** <b>Rush requests must be approved</b>	
<b>Sample #</b> -1 -2 -3 -4 -5		<b>Description</b> TB-10-05062022 MW-20-3 MW-20-2 Dup-8-2022 EB-10-050622		<b>Date Sampled</b> 5/16/22 5/16/22 5/16/22 5/16/22 5/16/22		<b>Time Sampled</b> 0700 1030 1115 1130 1405	
<b>Sample Matrix</b> Waste Water Ground Water Drinking Water Sludge Soil		<b>Other</b>		<b>Comments:</b>		<b>Notes</b>	
<b>EDF Required Geotracker</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>Global ID</b>		<b>CHK BY:</b> DISTRIBUTION [Signature]		<b>SHORTS - HOLDING TIME</b> (Cr+6) (NO3) OP SS DO Cl6 BOD MBAS COT	
<b>Billing</b> <input type="checkbox"/> Same as above		<b>1. Relinquished By:</b> [Signature] Date: 5/16/22 Time: 15:00 <b>2. Relinquished By:</b> [Signature] Date: 5-16-22 Time: 4:45 <b>3. Relinquished By:</b> [Signature] Date: 5-16-22 Time: 15:00		<b>1. Received By:</b> [Signature] Date: 5-6-22 Time: 15:00 <b>2. Received By:</b> [Signature] Date: 5/6/22 Time: 15:00 <b>3. Received By:</b> [Signature] Date: 5/6/22 Time: 15:00		<b>System #</b> (needed for CUR) <b>GISKey</b> <input type="checkbox"/> Well Star <input type="checkbox"/>	

Pace Analytical Bakersfield does not accept samples containing radioactive material above background levels. Samples containing radioactive material must be disclosed prior to receipt. Any samples suspected of containing radioactive material above background levels will not be accepted and will be returned to client.

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>1</u> Of <u>1</u>	
Submission #: <u>2210766</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> GSO / GLS <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 checked="" type="checkbox"/> NO <input type="checkbox"/> <u>W</u> / <u>S</u>
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____					
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>			
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>274</u>		Date/Time: <u>5/16/12</u> <u>1645</u>	
		Temperature: (A) <u>0.9</u> °C / (C) <u>0.7</u> °C		Analyst Init: <u>PRC</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		H	H	H	H					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*		G	G	G	G					
QT INORGANIC CHEMICAL METALS		I	I	I	I					
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTa PHENOLICS										
40ml VOA VIAL TRAVEL BLANK	A									
40ml VOA VIAL		A-C	A-C	A-C	A-C					
QT EPA 1664B										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL <del>4oz</del> <u>where amber</u>		D-F	D-F	D-F	D-F					
QT EPA 505/608.3/8081A										
QT EPA 515.1/8151A										
QT EPA 525.2										
QT EPA 525.2 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548.1										
QT EPA 549.2										
QT EPA 8015M										
QT EPA 8270C										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: PRC Date/Time: 5/16/12 1800 Rev 22 04/13/21  
 A = Actual / C = Corrected [S:\WPDoc\WordPerfect\LAB\_OCS\FORMS\8ANRECrev 20]





Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 06/06/2022 17:37  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
<b>2210766-01</b>	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/06/2022 16:45	
	<b>Project Number:</b>	JPL	<b>Sampling Date:</b> 05/06/2022 07:00	
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	TB-10-05062022	<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Trip Blank	
			Delivery Work Order:	
			Global ID: 0000000000	
			Location ID (FieldPoint): TB-10	
			Matrix: WG	
			Sample QC Type (SACode): CS	
			Cooler ID:	
	<hr/>			
	<b>2210766-02</b>	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/06/2022 16:45
<b>Project Number:</b>		JPL	<b>Sampling Date:</b> 05/06/2022 10:30	
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---	
<b>Sampling Point:</b>		MW-20-3	<b>Lab Matrix:</b> Water	
<b>Sampled By:</b>		BTST	<b>Sample Type:</b> Groundwater	
			Delivery Work Order:	
			Global ID: 0000000000	
			Location ID (FieldPoint): MW-20	
			Matrix: WG	
			Sample QC Type (SACode): CS	
			Cooler ID:	
<hr/>				
<b>2210766-03</b>		<b>COC Number:</b>	---	<b>Receive Date:</b> 05/06/2022 16:45
	<b>Project Number:</b>	JPL	<b>Sampling Date:</b> 05/06/2022 11:15	
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---	
	<b>Sampling Point:</b>	MW-20-2	<b>Lab Matrix:</b> Water	
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater	
			Delivery Work Order:	
			Global ID: 0000000000	
			Location ID (FieldPoint): MW-20	
			Matrix: WG	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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 Powell, OH 43065

**Reported:** 06/06/2022 17:37  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
<b>2210766-04</b>	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/06/2022 16:45
	<b>Project Number:</b>	JPL	<b>Sampling Date:</b> 05/06/2022 11:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	Dup-8-2Q22	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): Dup-8
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	
<b>2210766-05</b>	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/06/2022 16:45
	<b>Project Number:</b>	JPL	<b>Sampling Date:</b> 05/06/2022 14:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	EB-10-050622	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	BTST	<b>Sample Type:</b> Groundwater
			Delivery Work Order:
			Global ID: 0000000000
			Location ID (FieldPoint): EB-10
			Matrix: WG
			Sample QC Type (SACode): CS
		Cooler ID:	

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Tidewater Inc. - Powell  
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 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210766-01	Client Sample Name: JPL, TB-10-05062022, 5/6/2022 7:00:00AM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210766-01		Client Sample Name: JPL, TB-10-05062022, 5/6/2022 7:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210766-01	Client Sample Name: JPL, TB-10-05062022, 5/6/2022 7:00:00AM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.0	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 11:29	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210766-01	Client Sample Name: JPL, TB-10-05062022, 5/6/2022 7:00:00AM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	11:29	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210766-02	Client Sample Name: JPL, MW-20-3, 5/6/2022 10:30:00AM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210766-02	Client Sample Name:	JPL, MW-20-3, 5/6/2022 10:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
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	0.13	EPA-524.2	ND		1	
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1	
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1	
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.51</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND		1	
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1	
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1	
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1	
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1	
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1	
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1	
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210766-02	Client Sample Name: JPL, MW-20-3, 5/6/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.3	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 05:47	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210766-02	Client Sample Name: JPL, MW-20-3, 5/6/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	05:47	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 06/06/2022 17:37  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210766-02	<b>Client Sample Name:</b> JPL, MW-20-3, 5/6/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/10/22 06:00	05/10/22 08:23	ADC	MS-V16	1	B139271	EPA 524.2

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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210766-02	Client Sample Name:	JPL, MW-20-3, 5/6/2022 10:30:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	9.8	mg/L	0.10	0.014	EPA-200.7	0.024		1
Total Recoverable Magnesium	6.6	mg/L	0.050	0.019	EPA-200.7	0.026		1
Total Recoverable Sodium	52	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	1.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	60	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	12	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	68	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	54	mg/L	0.50	0.13	EPA-300.0	0.16		3
Nitrate as N	0.19	mg/L	0.10	0.024	EPA-300.0	0.024		3
Sulfate	7.1	mg/L	1.0	0.14	EPA-300.0	0.21		3
pH	9.12	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	220	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/12/22 10:40	05/13/22 17:00		JRG	PE-OP4	1	B139519	EPA 200.2
2	SM-2320B	05/12/22 07:00	05/12/22 14:25		RML	MET-1	1	B138223	No Prep
3	EPA-300.0	05/06/22 19:00	05/06/22 20:49		JAT	IC8	1	B139143	No Prep
4	EPA-150.1	05/12/22 07:00	05/12/22 14:25		RML	MET-1	1	B138223	No Prep
5	EPA-160.1	05/10/22 14:00	05/10/22 14:00		CAD	MANUAL	2	B139327	No Prep
6	EPA-353.2	05/07/22 01:41	05/07/22 01:47		KB1	KONE-1	1	B139322	No Prep
7	EPA-314.0	05/16/22 13:00	05/16/22 18:54		KB1	IC6	1	B139762	No Prep

DCN = Data Continuation Number

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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210766-02	Client Sample Name: JPL, MW-20-3, 5/6/2022 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000048	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	0.93	ug/L	2.0	0.70	EPA-200.8	ND	J	2
Total Recoverable Chromium	0.73	ug/L	3.0	0.50	EPA-200.8	ND	J	3
Total Recoverable Iron	150	ug/L	50	30	EPA-200.7	ND		4
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		3

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-218.6	05/16/22 23:00	05/17/22 17:55		KB1	IC-4	1	B139776	No Prep
2	EPA-200.8	05/12/22 11:35	05/13/22 12:45		KHS	PE-EL4	1	B139523	EPA 200.2
3	EPA-200.8	05/12/22 11:35	05/13/22 00:22		ARD	PE-EL2	1	B139523	EPA 200.2
4	EPA-200.7	05/12/22 10:40	05/13/22 17:00		JRG	PE-OP4	1	B139519	EPA 200.2

DCN = Data Continuation Number

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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210766-03	Client Sample Name:	JPL, MW-20-2, 5/6/2022 11:15:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
<b>Chloroform</b>	<b>0.43</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210766-03	Client Sample Name:	JPL, MW-20-2, 5/6/2022 11:15:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.34</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND	<b>J</b>	1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210766-03	<b>Client Sample Name:</b> JPL, MW-20-2, 5/6/2022 11:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.5	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	97.1	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22 06:11	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number





Tidewater Inc. - Powell  
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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210766-03	Client Sample Name: JPL, MW-20-2, 5/6/2022 11:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/09/22 18:00	05/10/22	06:11	MGC	MS-V5	1	B139141	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
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**Reported:** 06/06/2022 17:37  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210766-03	<b>Client Sample Name:</b> JPL, MW-20-2, 5/6/2022 11:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/10/22 06:00	05/10/22 08:49	ADC	MS-V16	1	B139271	EPA 524.2

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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210766-03	Client Sample Name:	JPL, MW-20-2, 5/6/2022 11:15:00AM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	85	mg/L	0.10	0.014	EPA-200.7	0.024		1
Total Recoverable Magnesium	30	mg/L	0.050	0.019	EPA-200.7	0.026		1
Total Recoverable Sodium	21	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	3.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	250	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO <sub>3</sub>	200	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	59	mg/L	0.50	0.13	EPA-300.0	0.16		3
Nitrate as N	4.2	mg/L	0.10	0.024	EPA-300.0	0.024		3
Sulfate	82	mg/L	1.0	0.14	EPA-300.0	0.21		3
pH	8.05	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	490	mg/L	20	10	EPA-160.1	ND	A10	5
Nitrite as N	0.018	mg/L	0.050	0.010	EPA-353.2	ND	J	6
Perchlorate	1.8	ug/L	2.0	0.81	EPA-314.0	ND	J	7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/12/22 10:40	05/13/22 17:02		JRG	PE-OP4	1	B139519	EPA 200.2
2	SM-2320B	05/12/22 07:00	05/12/22 14:31		RML	MET-1	1	B138223	No Prep
3	EPA-300.0	05/06/22 19:00	05/06/22 22:11		JAT	IC8	1	B139143	No Prep
4	EPA-150.1	05/12/22 07:00	05/12/22 14:31		RML	MET-1	1	B138223	No Prep
5	EPA-160.1	05/10/22 14:00	05/10/22 14:00		CAD	MANUAL	2	B139327	No Prep
6	EPA-353.2	05/07/22 01:41	05/07/22 01:51		KB1	KONE-1	1	B139322	No Prep
7	EPA-314.0	05/16/22 13:00	05/16/22 19:10		KB1	IC6	1	B139762	No Prep

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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

<b>BCL Sample ID:</b> 2210766-03	<b>Client Sample Name:</b> JPL, MW-20-2, 5/6/2022 11:15:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00012	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		3
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		4
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		3

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/16/22 23:00	05/17/22 18:05	KB1	IC-4	1	B139776	No Prep
2	EPA-200.8	05/12/22 11:35	05/13/22 12:46	KHS	PE-EL4	1	B139523	EPA 200.2
3	EPA-200.8	05/12/22 11:35	05/13/22 00:24	ARD	PE-EL2	1	B139523	EPA 200.2
4	EPA-200.7	05/12/22 10:40	05/13/22 17:02	JRG	PE-OP4	1	B139519	EPA 200.2

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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID:	2210766-04	Client Sample Name:	JPL, Dup-8-2Q22, 5/6/2022 11:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1	
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1	
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1	
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
<b>Chloroform</b>	<b>0.65</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.14</b>	<b>EPA-524.2</b>	ND		1	
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1	
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1	
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1	
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1	
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1	
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1	
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1	
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1	
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1	
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1	
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1	
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1	
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1	
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1	
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1	

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 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210766-04      **Client Sample Name:** JPL, Dup-8-2Q22, 5/6/2022 11:30:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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>0.37</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.23</b>	<b>EPA-524.2</b>	ND	<b>J</b>	<b>1</b>
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
<b>Trichloroethene</b>	<b>0.51</b>	<b>ug/L</b>	<b>0.50</b>	<b>0.19</b>	<b>EPA-524.2</b>	ND		<b>1</b>
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210766-04	Client Sample Name: JPL, Dup-8-2Q22, 5/6/2022 11:30:00AM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	96.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22 11:54	MGC	MS-V5	1	B139142	EPA 524.2

DCN = Data Continuation Number



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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210766-04	Client Sample Name: JPL, Dup-8-2Q22, 5/6/2022 11:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22	11:54	MGC	MS-V5	1	B139142	EPA 524.2

DCN = Data Continuation Number





Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 06/06/2022 17:37  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210766-04	<b>Client Sample Name:</b> JPL, Dup-8-2Q22, 5/6/2022 11:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	SRL 524M	05/10/22 06:00	05/10/22	09:16	ADC	MS-V16	1	B139271	EPA 524.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210766-04	Client Sample Name:	JPL, Dup-8-2Q22, 5/6/2022 11:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN	
Total Recoverable Calcium	83	mg/L	0.10	0.014	EPA-200.7	0.024		1	
Total Recoverable Magnesium	29	mg/L	0.050	0.019	EPA-200.7	0.026		1	
Total Recoverable Sodium	21	mg/L	0.50	0.051	EPA-200.7	ND		1	
Total Recoverable Potassium	2.9	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate	250	mg/L	5.0	5.0	SM-2320B	ND		2	
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2	
Total Alkalinity as CaCO <sub>3</sub>	200	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	60	mg/L	0.50	0.13	EPA-300.0	0.16		3	
Nitrate as N	4.5	mg/L	0.10	0.024	EPA-300.0	0.024		3	
Sulfate	82	mg/L	1.0	0.14	EPA-300.0	0.21		3	
pH	8.06	pH Units	0.05	0.05	EPA-150.1		S05	4	
Total Dissolved Solids @ 180 C	490	mg/L	20	10	EPA-160.1	ND	A10	5	
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	ND	J	6	
Perchlorate	1.5	ug/L	2.0	0.81	EPA-314.0	ND	J	7	

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/12/22 10:40	05/13/22 17:04		JRG	PE-OP4	1	B139519	EPA 200.2
2	SM-2320B	05/12/22 07:00	05/12/22 14:39		RML	MET-1	1	B138223	No Prep
3	EPA-300.0	05/06/22 19:00	05/06/22 22:32		JAT	IC8	1	B139143	No Prep
4	EPA-150.1	05/12/22 07:00	05/12/22 14:39		RML	MET-1	1	B138223	No Prep
5	EPA-160.1	05/10/22 14:00	05/10/22 14:00		CAD	MANUAL	2	B139327	No Prep
6	EPA-353.2	05/07/22 01:41	05/07/22 01:51		KB1	KONE-1	1	B139322	No Prep
7	EPA-314.0	05/16/22 13:00	05/16/22 19:25		KB1	IC6	1	B139762	No Prep

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210766-04	Client Sample Name: JPL, Dup-8-2Q22, 5/6/2022 11:30:00AM
---------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.00012	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		3
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		4
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		3

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/16/22 23:00	05/17/22 18:15	KB1	IC-4	1	B139776	No Prep
2	EPA-200.8	05/12/22 11:35	05/13/22 12:48	KHS	PE-EL4	1	B139523	EPA 200.2
3	EPA-200.8	05/12/22 11:35	05/13/22 00:25	ARD	PE-EL2	1	B139523	EPA 200.2
4	EPA-200.7	05/12/22 10:40	05/13/22 17:04	JRG	PE-OP4	1	B139519	EPA 200.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

<b>BCL Sample ID:</b> 2210766-05	<b>Client Sample Name:</b> JPL, EB-10-050622, 5/6/2022 2:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Benzene	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
Bromobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Bromochloromethane	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.20	EPA-524.2	ND		1
Bromoform	ND	ug/L	0.50	0.46	EPA-524.2	ND		1
Bromomethane	ND	ug/L	0.50	0.20	EPA-524.2	ND	V11	1
n-Butylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
sec-Butylbenzene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
tert-Butylbenzene	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chlorobenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloroethane	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
Chloroform	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Chloromethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Chlorotoluene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
4-Chlorotoluene	ND	ug/L	0.50	0.093	EPA-524.2	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
1,2-Dibromo-3-chloropropane	ND	ug/L	1.0	0.89	EPA-524.2	ND		1
1,2-Dibromoethane	ND	ug/L	0.50	0.22	EPA-524.2	ND		1
Dibromomethane	ND	ug/L	0.50	0.23	EPA-524.2	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Dichlorodifluoromethane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.15	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	0.27	EPA-524.2	ND		1
cis-1,2-Dichloroethene	ND	ug/L	0.50	0.27	EPA-524.2	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,3-Dichloropropane	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
2,2-Dichloropropane	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
1,1-Dichloropropene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

**BCL Sample ID:** 2210766-05      **Client Sample Name:** JPL, EB-10-050622, 5/6/2022 2:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
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	0.13	EPA-524.2	ND		1
Ethylbenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
Hexachlorobutadiene	ND	ug/L	0.50	0.20	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	0.14	EPA-524.2	ND		1
Methylene chloride	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Naphthalene	ND	ug/L	0.50	0.16	EPA-524.2	ND		1
n-Propylbenzene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
Styrene	ND	ug/L	0.50	0.12	EPA-524.2	ND		1
1,1,1,2-Tetrachloroethane	ND	ug/L	0.50	0.21	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	0.23	EPA-524.2	ND		1
Toluene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,2,3-Trichlorobenzene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	0.50	0.15	EPA-524.2	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.21	EPA-524.2	ND		1
Trichloroethene	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
1,2,3-Trichloropropane	ND	ug/L	1.0	0.78	EPA-524.2	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
1,2,4-Trimethylbenzene	ND	ug/L	0.50	0.17	EPA-524.2	ND		1
1,3,5-Trimethylbenzene	ND	ug/L	0.50	0.14	EPA-524.2	ND		1
Vinyl chloride	ND	ug/L	0.50	0.18	EPA-524.2	ND		1
Acetone	ND	ug/L	10	6.6	EPA-524.2	ND		1
Acrylonitrile	ND	ug/L	5.0	1.5	EPA-524.2	ND		1
Allyl chloride	ND	ug/L	5.0	0.47	EPA-524.2	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.19	EPA-524.2	ND		1
t-Butyl alcohol	ND	ug/L	2.0	2.0	EPA-524.2	ND		1
Carbon disulfide	ND	ug/L	0.50	0.48	EPA-524.2	ND		1
trans-1,4-Dichloro-2-butene	ND	ug/L	5.0	1.8	EPA-524.2	ND		1

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2)

BCL Sample ID: 2210766-05	Client Sample Name: JPL, EB-10-050622, 5/6/2022 2:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Diethyl ether	ND	ug/L	2.0	0.33	EPA-524.2	ND		1
Ethyl methacrylate	ND	ug/L	4.0	1.3	EPA-524.2	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.32	EPA-524.2	ND		1
Hexachloroethane	ND	ug/L	0.50	0.11	EPA-524.2	ND		1
2-Hexanone	ND	ug/L	10	5.0	EPA-524.2	ND		1
Methacrylonitrile	ND	ug/L	10	2.3	EPA-524.2	ND		1
Methyl ethyl ketone	ND	ug/L	5.0	3.3	EPA-524.2	ND		1
Methyl iodide	ND	ug/L	2.0	1.1	EPA-524.2	ND		1
Methyl isobutyl ketone	ND	ug/L	5.0	2.4	EPA-524.2	ND		1
Methyl methacrylate	ND	ug/L	5.0	1.2	EPA-524.2	ND		1
Pentachloroethane	ND	ug/L	2.0	0.63	EPA-524.2	ND	V11	1
Propionitrile	ND	ug/L	20	6.2	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	0.34	EPA-524.2	ND		1
o-Xylene	ND	ug/L	0.50	0.13	EPA-524.2	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.4	%	75 - 125 (LCL - UCL)		EPA-524.2			1
Toluene-d8 (Surrogate)	97.2	%	80 - 120 (LCL - UCL)		EPA-524.2			1
4-Bromofluorobenzene (Surrogate)	95.8	%	80 - 120 (LCL - UCL)		EPA-524.2			1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22 12:18	MGC	MS-V5	1	B139142	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Volatile Organic Analysis (EPA Method 524.2) TICs

BCL Sample ID: 2210766-05	Client Sample Name: JPL, EB-10-050622, 5/6/2022 2:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
TIC: 1,1-Dichloropropanone	0	ug/L			EPA-524.2	0		1
TIC: 1-Chlorobutane	0	ug/L			EPA-524.2	0		1
TIC: 2-Nitropropane	0	ug/L			EPA-524.2	0		1
TIC: Chloroacetonitrile	0	ug/L			EPA-524.2	0		1
TIC: Methyl acrylate	0	ug/L			EPA-524.2	0		1
TIC: Nitrobenzene	0	ug/L			EPA-524.2	0		1

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-524.2	05/10/22 06:00	05/10/22	12:18	MGC	MS-V5	1	B139142	EPA 524.2

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

**Reported:** 06/06/2022 17:37  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

### DHS Low Level 1,2,3-TCP by SRL 524M

<b>BCL Sample ID:</b> 2210766-05	<b>Client Sample Name:</b> JPL, EB-10-050622, 5/6/2022 2:05:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
1,2,3-Trichloropropane	ND	ug/L	0.0050	0.0010	SRL 524M	ND		1

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	SRL 524M	05/10/22 06:00	05/10/22 09:42	ADC	MS-V16	1	B139271	EPA 524.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Water Analysis (General Chemistry)

BCL Sample ID:	2210766-05	Client Sample Name:	JPL, EB-10-050622, 5/6/2022 2:05:00PM					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Total Recoverable Calcium	0.030	mg/L	0.10	0.014	EPA-200.7	0.018	J	1
Total Recoverable Magnesium	0.035	mg/L	0.050	0.019	EPA-200.7	0.024	J	1
Total Recoverable Sodium	ND	mg/L	0.50	0.051	EPA-200.7	ND		1
Total Recoverable Potassium	ND	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate	ND	mg/L	5.0	5.0	SM-2320B	ND		2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B	ND		2
Total Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	0.18	mg/L	0.50	0.13	EPA-300.0	0.16	J	3
Nitrate as N	0.029	mg/L	0.10	0.024	EPA-300.0	0.024	J	3
Sulfate	0.17	mg/L	1.0	0.14	EPA-300.0	0.21	J	3
pH	5.85	pH Units	0.05	0.05	EPA-150.1		S05	4
Total Dissolved Solids @ 180 C	3.3	mg/L	6.7	3.3	EPA-160.1	ND	J	5
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		6
Perchlorate	ND	ug/L	2.0	0.81	EPA-314.0	ND		7

DCN	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	Prep Method
1	EPA-200.7	05/12/22 10:40	05/13/22 17:42		JRG	PE-OP4	1	B139520	EPA 200.2
2	SM-2320B	05/12/22 07:00	05/12/22 14:48		RML	MET-1	1	B138223	No Prep
3	EPA-300.0	05/06/22 19:00	05/06/22 20:29		JAT	IC8	1	B139143	No Prep
4	EPA-150.1	05/12/22 07:00	05/12/22 14:48		RML	MET-1	1	B138223	No Prep
5	EPA-160.1	05/10/22 14:00	05/10/22 14:00		CAD	MANUAL	0.667	B139327	No Prep
6	EPA-353.2	05/07/22 01:41	05/07/22 01:51		KB1	KONE-1	1	B139322	No Prep
7	EPA-314.0	05/16/22 13:00	05/16/22 19:41		KB1	IC6	1	B139762	No Prep

DCN = Data Continuation Number



Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 Project Manager: David Conner

## Metals Analysis

BCL Sample ID: 2210766-05	Client Sample Name: JPL, EB-10-050622, 5/6/2022 2:05:00PM
---------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	DCN
Hexavalent Chromium	0.000086	mg/L	0.00020	0.000020	EPA-218.6	ND	J	1
Total Recoverable Arsenic	ND	ug/L	2.0	0.70	EPA-200.8	ND		2
Total Recoverable Chromium	ND	ug/L	3.0	0.50	EPA-200.8	ND		3
Total Recoverable Iron	ND	ug/L	50	30	EPA-200.7	ND		4
Total Recoverable Lead	ND	ug/L	1.0	0.10	EPA-200.8	ND		3

DCN	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID	Prep Method
1	EPA-218.6	05/16/22 23:00	05/17/22 18:24	KB1	IC-4	1	B139776	No Prep
2	EPA-200.8	05/12/22 11:35	05/13/22 12:50	KHS	PE-EL4	1	B139523	EPA 200.2
3	EPA-200.8	05/12/22 11:35	05/13/22 00:27	ARD	PE-EL2	1	B139523	EPA 200.2
4	EPA-200.7	05/12/22 10:40	05/13/22 17:42	JRG	PE-OP4	1	B139520	EPA 200.2

DCN = Data Continuation Number

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139141</b>						
Benzene	B139141-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B139141-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B139141-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B139141-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B139141-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B139141-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B139141-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B139141-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B139141-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B139141-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B139141-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B139141-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B139141-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B139141-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B139141-BLK1	ND	ug/L	0.50	0.093	
Dibromochloromethane	B139141-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B139141-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B139141-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B139141-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B139141-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B139141-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B139141-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B139141-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B139141-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B139141-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B139141-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B139141-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B139141-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B139141-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B139141-BLK1	ND	ug/L	0.50	0.14	

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139141</b>						
trans-1,3-Dichloropropene	B139141-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B139141-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B139141-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B139141-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B139141-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B139141-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B139141-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B139141-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B139141-BLK1	ND	ug/L	0.50	0.12	
Styrene	B139141-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B139141-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B139141-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B139141-BLK1	ND	ug/L	0.50	0.23	
Toluene	B139141-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B139141-BLK1	ND	ug/L	0.50	0.15	
1,1,1-Trichloroethane	B139141-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B139141-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B139141-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B139141-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B139141-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B139141-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B139141-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B139141-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B139141-BLK1	ND	ug/L	0.50	0.18	
Acetone	B139141-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B139141-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B139141-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B139141-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B139141-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B139141-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B139141-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B139141-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B139141-BLK1	ND	ug/L	4.0	1.3	

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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139141</b>						
Ethyl t-butyl ether	B139141-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B139141-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B139141-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B139141-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B139141-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B139141-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B139141-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B139141-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B139141-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B139141-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B139141-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B139141-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B139141-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B139141-BLK1</b>	<b>102</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B139141-BLK1</b>	<b>98.1</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B139141-BLK1</b>	<b>94.7</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>QC Batch ID: B139142</b>						
Benzene	B139142-BLK1	ND	ug/L	0.50	0.11	
Bromobenzene	B139142-BLK1	ND	ug/L	0.50	0.15	
Bromochloromethane	B139142-BLK1	ND	ug/L	0.50	0.27	
Bromodichloromethane	B139142-BLK1	ND	ug/L	0.50	0.20	
Bromoform	B139142-BLK1	ND	ug/L	0.50	0.46	
Bromomethane	B139142-BLK1	ND	ug/L	0.50	0.20	
n-Butylbenzene	B139142-BLK1	ND	ug/L	0.50	0.15	
sec-Butylbenzene	B139142-BLK1	ND	ug/L	0.50	0.13	
tert-Butylbenzene	B139142-BLK1	ND	ug/L	0.50	0.18	
Carbon tetrachloride	B139142-BLK1	ND	ug/L	0.50	0.17	
Chlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.14	
Chloroethane	B139142-BLK1	ND	ug/L	0.50	0.17	
Chloroform	B139142-BLK1	ND	ug/L	0.50	0.14	
Chloromethane	B139142-BLK1	ND	ug/L	0.50	0.11	
2-Chlorotoluene	B139142-BLK1	ND	ug/L	0.50	0.14	
4-Chlorotoluene	B139142-BLK1	ND	ug/L	0.50	0.093	

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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139142</b>						
Dibromochloromethane	B139142-BLK1	ND	ug/L	0.50	0.22	
1,2-Dibromo-3-chloropropane	B139142-BLK1	ND	ug/L	1.0	0.89	
1,2-Dibromoethane	B139142-BLK1	ND	ug/L	0.50	0.22	
Dibromomethane	B139142-BLK1	ND	ug/L	0.50	0.23	
1,2-Dichlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.21	
1,3-Dichlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.16	
1,4-Dichlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.15	
Dichlorodifluoromethane	B139142-BLK1	ND	ug/L	0.50	0.15	
1,1-Dichloroethane	B139142-BLK1	ND	ug/L	0.50	0.15	
1,2-Dichloroethane	B139142-BLK1	ND	ug/L	0.50	0.17	
1,1-Dichloroethene	B139142-BLK1	ND	ug/L	0.50	0.27	
cis-1,2-Dichloroethene	B139142-BLK1	ND	ug/L	0.50	0.27	
trans-1,2-Dichloroethene	B139142-BLK1	ND	ug/L	0.50	0.17	
1,2-Dichloropropane	B139142-BLK1	ND	ug/L	0.50	0.15	
1,3-Dichloropropane	B139142-BLK1	ND	ug/L	0.50	0.13	
2,2-Dichloropropane	B139142-BLK1	ND	ug/L	0.50	0.18	
1,1-Dichloropropene	B139142-BLK1	ND	ug/L	0.50	0.19	
cis-1,3-Dichloropropene	B139142-BLK1	ND	ug/L	0.50	0.14	
trans-1,3-Dichloropropene	B139142-BLK1	ND	ug/L	0.50	0.13	
Ethylbenzene	B139142-BLK1	ND	ug/L	0.50	0.15	
Hexachlorobutadiene	B139142-BLK1	ND	ug/L	0.50	0.20	
Isopropylbenzene	B139142-BLK1	ND	ug/L	0.50	0.14	
p-Isopropyltoluene	B139142-BLK1	ND	ug/L	0.50	0.14	
Methylene chloride	B139142-BLK1	ND	ug/L	0.50	0.21	
Methyl t-butyl ether	B139142-BLK1	ND	ug/L	0.50	0.14	
Naphthalene	B139142-BLK1	ND	ug/L	0.50	0.16	
n-Propylbenzene	B139142-BLK1	ND	ug/L	0.50	0.12	
Styrene	B139142-BLK1	ND	ug/L	0.50	0.12	
1,1,1,2-Tetrachloroethane	B139142-BLK1	ND	ug/L	0.50	0.21	
1,1,1,2,2-Tetrachloroethane	B139142-BLK1	ND	ug/L	0.50	0.17	
Tetrachloroethene	B139142-BLK1	ND	ug/L	0.50	0.23	
Toluene	B139142-BLK1	ND	ug/L	0.50	0.17	
1,2,3-Trichlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trichlorobenzene	B139142-BLK1	ND	ug/L	0.50	0.15	

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 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139142</b>						
1,1,1-Trichloroethane	B139142-BLK1	ND	ug/L	0.50	0.21	
1,1,2-Trichloroethane	B139142-BLK1	ND	ug/L	0.50	0.21	
Trichloroethene	B139142-BLK1	ND	ug/L	0.50	0.19	
Trichlorofluoromethane	B139142-BLK1	ND	ug/L	0.50	0.14	
1,2,3-Trichloropropane	B139142-BLK1	ND	ug/L	1.0	0.78	
1,1,2-Trichloro-1,2,2-trifluoroethane	B139142-BLK1	ND	ug/L	0.50	0.19	
1,2,4-Trimethylbenzene	B139142-BLK1	ND	ug/L	0.50	0.17	
1,3,5-Trimethylbenzene	B139142-BLK1	ND	ug/L	0.50	0.14	
Vinyl chloride	B139142-BLK1	ND	ug/L	0.50	0.18	
Acetone	B139142-BLK1	ND	ug/L	10	6.6	
Acrylonitrile	B139142-BLK1	ND	ug/L	5.0	1.5	
Allyl chloride	B139142-BLK1	ND	ug/L	5.0	0.47	
t-Amyl Methyl ether	B139142-BLK1	ND	ug/L	0.50	0.19	
t-Butyl alcohol	B139142-BLK1	ND	ug/L	2.0	2.0	
Carbon disulfide	B139142-BLK1	ND	ug/L	0.50	0.48	
trans-1,4-Dichloro-2-butene	B139142-BLK1	ND	ug/L	5.0	1.8	
Diethyl ether	B139142-BLK1	ND	ug/L	2.0	0.33	
Ethyl methacrylate	B139142-BLK1	ND	ug/L	4.0	1.3	
Ethyl t-butyl ether	B139142-BLK1	ND	ug/L	0.50	0.32	
Hexachloroethane	B139142-BLK1	ND	ug/L	0.50	0.11	
2-Hexanone	B139142-BLK1	ND	ug/L	10	5.0	
Methacrylonitrile	B139142-BLK1	ND	ug/L	10	2.3	
Methyl ethyl ketone	B139142-BLK1	ND	ug/L	5.0	3.3	
Methyl iodide	B139142-BLK1	ND	ug/L	2.0	1.1	
Methyl isobutyl ketone	B139142-BLK1	ND	ug/L	5.0	2.4	
Methyl methacrylate	B139142-BLK1	ND	ug/L	5.0	1.2	
Pentachloroethane	B139142-BLK1	ND	ug/L	2.0	0.63	
Propionitrile	B139142-BLK1	ND	ug/L	20	6.2	
Tetrahydrofuran	B139142-BLK1	ND	ug/L	20	5.2	
p- & m-Xylenes	B139142-BLK1	ND	ug/L	0.50	0.34	
o-Xylene	B139142-BLK1	ND	ug/L	0.50	0.13	
<b>1,2-Dichloroethane-d4 (Surrogate)</b>	<b>B139142-BLK1</b>	<b>102</b>	<b>%</b>	<b>75 - 125 (LCL - UCL)</b>		
<b>Toluene-d8 (Surrogate)</b>	<b>B139142-BLK1</b>	<b>98.8</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		
<b>4-Bromofluorobenzene (Surrogate)</b>	<b>B139142-BLK1</b>	<b>95.9</b>	<b>%</b>	<b>80 - 120 (LCL - UCL)</b>		

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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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: B139141</b>										
Benzene	B139141-BS1	LCS	23.210	25.000	ug/L	92.8		70 - 130		
Bromodichloromethane	B139141-BS1	LCS	24.160	25.000	ug/L	96.6		70 - 130		
Chlorobenzene	B139141-BS1	LCS	23.030	25.000	ug/L	92.1		70 - 130		
Chloroethane	B139141-BS1	LCS	24.120	25.000	ug/L	96.5		70 - 130		
1,4-Dichlorobenzene	B139141-BS1	LCS	22.370	25.000	ug/L	89.5		70 - 130		
1,1-Dichloroethane	B139141-BS1	LCS	22.690	25.000	ug/L	90.8		70 - 130		
1,1-Dichloroethene	B139141-BS1	LCS	24.820	25.000	ug/L	99.3		70 - 130		
Toluene	B139141-BS1	LCS	23.500	25.000	ug/L	94.0		70 - 130		
Trichloroethene	B139141-BS1	LCS	24.530	25.000	ug/L	98.1		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B139141-BS1	LCS	10.240	10.000	ug/L	102		75 - 125		
Toluene-d8 (Surrogate)	B139141-BS1	LCS	10.150	10.000	ug/L	102		80 - 120		
4-Bromofluorobenzene (Surrogate)	B139141-BS1	LCS	9.9200	10.000	ug/L	99.2		80 - 120		
<b>QC Batch ID: B139142</b>										
Benzene	B139142-BS1	LCS	25.220	25.000	ug/L	101		70 - 130		
Bromodichloromethane	B139142-BS1	LCS	26.060	25.000	ug/L	104		70 - 130		
Chlorobenzene	B139142-BS1	LCS	24.630	25.000	ug/L	98.5		70 - 130		
Chloroethane	B139142-BS1	LCS	25.750	25.000	ug/L	103		70 - 130		
1,4-Dichlorobenzene	B139142-BS1	LCS	23.790	25.000	ug/L	95.2		70 - 130		
1,1-Dichloroethane	B139142-BS1	LCS	26.300	25.000	ug/L	105		70 - 130		
1,1-Dichloroethene	B139142-BS1	LCS	27.990	25.000	ug/L	112		70 - 130		
Toluene	B139142-BS1	LCS	24.560	25.000	ug/L	98.2		70 - 130		
Trichloroethene	B139142-BS1	LCS	27.050	25.000	ug/L	108		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	B139142-BS1	LCS	10.130	10.000	ug/L	101		75 - 125		
Toluene-d8 (Surrogate)	B139142-BS1	LCS	9.9400	10.000	ug/L	99.4		80 - 120		
4-Bromofluorobenzene (Surrogate)	B139142-BS1	LCS	9.9000	10.000	ug/L	99.0		80 - 120		

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
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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	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139141</b>		Used client sample: N									
Benzene	MS	2210682-01	ND	23.400	25.000	ug/L		93.6		70 - 130	
	MSD	2210682-01	ND	25.060	25.000	ug/L	6.9	100	20	70 - 130	
Bromodichloromethane	MS	2210682-01	ND	24.810	25.000	ug/L		99.2		70 - 130	
	MSD	2210682-01	ND	26.490	25.000	ug/L	6.5	106	20	70 - 130	
Chlorobenzene	MS	2210682-01	ND	23.470	25.000	ug/L		93.9		70 - 130	
	MSD	2210682-01	ND	23.980	25.000	ug/L	2.1	95.9	20	70 - 130	
Chloroethane	MS	2210682-01	ND	23.230	25.000	ug/L		92.9		70 - 130	
	MSD	2210682-01	ND	24.860	25.000	ug/L	6.8	99.4	20	70 - 130	
1,4-Dichlorobenzene	MS	2210682-01	ND	22.820	25.000	ug/L		91.3		70 - 130	
	MSD	2210682-01	ND	23.480	25.000	ug/L	2.9	93.9	20	70 - 130	
1,1-Dichloroethane	MS	2210682-01	ND	23.140	25.000	ug/L		92.6		70 - 130	
	MSD	2210682-01	ND	24.870	25.000	ug/L	7.2	99.5	20	70 - 130	
1,1-Dichloroethene	MS	2210682-01	ND	25.450	25.000	ug/L		102		70 - 130	
	MSD	2210682-01	ND	26.720	25.000	ug/L	4.9	107	20	70 - 130	
Toluene	MS	2210682-01	ND	23.380	25.000	ug/L		93.5		70 - 130	
	MSD	2210682-01	ND	24.900	25.000	ug/L	6.3	99.6	20	70 - 130	
Trichloroethene	MS	2210682-01	ND	24.520	25.000	ug/L		98.1		70 - 130	
	MSD	2210682-01	ND	25.810	25.000	ug/L	5.1	103	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2210682-01	ND	10.000	10.000	ug/L		100		75 - 125	
	MSD	2210682-01	ND	9.9400	10.000	ug/L	0.6	99.4		75 - 125	
Toluene-d8 (Surrogate)	MS	2210682-01	ND	9.8500	10.000	ug/L		98.5		80 - 120	
	MSD	2210682-01	ND	9.7900	10.000	ug/L	0.6	97.9		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2210682-01	ND	9.8700	10.000	ug/L		98.7		80 - 120	
	MSD	2210682-01	ND	9.6700	10.000	ug/L	2.0	96.7		80 - 120	
<b>QC Batch ID: B139142</b>		Used client sample: N									
Benzene	MS	2210682-07	ND	24.710	25.000	ug/L		98.8		70 - 130	
	MSD	2210682-07	ND	24.410	25.000	ug/L	1.2	97.6	20	70 - 130	
Bromodichloromethane	MS	2210682-07	ND	26.250	25.000	ug/L		105		70 - 130	
	MSD	2210682-07	ND	26.260	25.000	ug/L	0.0	105	20	70 - 130	
Chlorobenzene	MS	2210682-07	ND	24.410	25.000	ug/L		97.6		70 - 130	
	MSD	2210682-07	ND	23.520	25.000	ug/L	3.7	94.1	20	70 - 130	
Chloroethane	MS	2210682-07	ND	25.420	25.000	ug/L		102		70 - 130	
	MSD	2210682-07	ND	24.490	25.000	ug/L	3.7	98.0	20	70 - 130	
1,4-Dichlorobenzene	MS	2210682-07	ND	24.270	25.000	ug/L		97.1		70 - 130	
	MSD	2210682-07	ND	23.210	25.000	ug/L	4.5	92.8	20	70 - 130	
1,1-Dichloroethane	MS	2210682-07	ND	25.250	25.000	ug/L		101		70 - 130	
	MSD	2210682-07	ND	25.000	25.000	ug/L	1.0	100	20	70 - 130	

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Tidewater Inc. - Powell  
 3761 Attucks Drive  
 Powell, OH 43065

Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B139142</b>		Used client sample: N									
1,1-Dichloroethene	MS	2210682-07	ND	27.060	25.000	ug/L		108		70 - 130	
	MSD	2210682-07	ND	26.200	25.000	ug/L	3.2	105	20	70 - 130	
Toluene	MS	2210682-07	ND	24.800	25.000	ug/L		99.2		70 - 130	
	MSD	2210682-07	ND	24.120	25.000	ug/L	2.8	96.5	20	70 - 130	
Trichloroethene	MS	2210682-07	ND	25.580	25.000	ug/L		102		70 - 130	
	MSD	2210682-07	ND	24.860	25.000	ug/L	2.9	99.4	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	2210682-07	ND	9.9600	10.000	ug/L		99.6		75 - 125	
	MSD	2210682-07	ND	10.190	10.000	ug/L	2.3	102		75 - 125	
Toluene-d8 (Surrogate)	MS	2210682-07	ND	10.070	10.000	ug/L		101		80 - 120	
	MSD	2210682-07	ND	10.030	10.000	ug/L	0.4	100		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	2210682-07	ND	9.8000	10.000	ug/L		98.0		80 - 120	
	MSD	2210682-07	ND	9.7100	10.000	ug/L	0.9	97.1		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: B139141</b>						
Nitrobenzene	B139141-BLK1	0	ug/L			
Methyl acrylate	B139141-BLK1	0	ug/L			
Chloroacetonitrile	B139141-BLK1	0	ug/L			
2-Nitropropane	B139141-BLK1	0	ug/L			
1-Chlorobutane	B139141-BLK1	0	ug/L			
1,1-Dichloropropanone	B139141-BLK1	0	ug/L			
<b>QC Batch ID: B139142</b>						
Nitrobenzene	B139142-BLK1	0	ug/L			
Methyl acrylate	B139142-BLK1	0	ug/L			
Chloroacetonitrile	B139142-BLK1	0	ug/L			
2-Nitropropane	B139142-BLK1	0	ug/L			
1-Chlorobutane	B139142-BLK1	0	ug/L			
1,1-Dichloropropanone	B139142-BLK1	0	ug/L			

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**Reported:** 06/06/2022 17:37  
**Project:** JPL- GW Monitoring Wells-CLP  
**Project Number:** 2Q22  
**Project Manager:** David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B139271</b>						
1,2,3-Trichloropropane	B139271-BLK1	ND	ug/L	0.0050	0.0010	

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 Project Number: 2Q22  
 Project Manager: David Conner

## DHS Low Level 1,2,3-TCP by SRL 524M

### 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: B139271</b>										
1,2,3-Trichloropropane	B139271-BS1	LCS	0.050170	0.050000	ug/L	100		80	120	

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## DHS Low Level 1,2,3-TCP by SRL 524M

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139271</b>		Used client sample: N									
1,2,3-Trichloropropane	MS	2210682-01	ND	0.040350	0.050000	ug/L		80.7		70 - 130	
	MSD	2210682-01	ND	0.046240	0.050000	ug/L	13.6	92.5	30	70 - 130	

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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: B138223</b>						
Bicarbonate	B138223-BLK1	ND	mg/L	5.0	5.0	
Carbonate	B138223-BLK1	ND	mg/L	2.5	2.5	
Total Alkalinity as CaCO3	B138223-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B139143</b>						
Chloride	B139143-BLK1	0.16400	mg/L	0.50	0.13	J
Nitrate as N	B139143-BLK1	0.024000	mg/L	0.10	0.024	J
Sulfate	B139143-BLK1	0.21400	mg/L	1.0	0.14	J
<b>QC Batch ID: B139322</b>						
Nitrite as N	B139322-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B139327</b>						
Total Dissolved Solids @ 180 C	B139327-BLK1	ND	mg/L	6.7	3.3	
<b>QC Batch ID: B139519</b>						
Total Recoverable Calcium	B139519-BLK1	0.024367	mg/L	0.10	0.014	J
Total Recoverable Magnesium	B139519-BLK1	0.025808	mg/L	0.050	0.019	J
Total Recoverable Sodium	B139519-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B139519-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B139520</b>						
Total Recoverable Calcium	B139520-BLK1	0.017850	mg/L	0.10	0.014	J
Total Recoverable Magnesium	B139520-BLK1	0.023540	mg/L	0.050	0.019	J
Total Recoverable Sodium	B139520-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	B139520-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B139762</b>						
Perchlorate	B139762-BLK1	ND	ug/L	2.0	0.81	

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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 Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B138223</b>										
Total Alkalinity as CaCO3	B138223-BS3	LCS	99.540	100.00	mg/L	99.5		90 - 110		
pH	B138223-BS2	LCS	7.0200	7.0000	pH Units	100		95 - 105		
<b>QC Batch ID: B139143</b>										
Chloride	B139143-BS1	LCS	52.383	50.000	mg/L	105		90 - 110		
Nitrate as N	B139143-BS1	LCS	5.1910	5.0000	mg/L	104		90 - 110		
Sulfate	B139143-BS1	LCS	102.32	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B139322</b>										
Nitrite as N	B139322-BS1	LCS	0.48260	0.50000	mg/L	96.5		90 - 110		
<b>QC Batch ID: B139327</b>										
Total Dissolved Solids @ 180 C	B139327-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B139519</b>										
Total Recoverable Calcium	B139519-BS1	LCS	9.8522	10.000	mg/L	98.5		85 - 115		
	B139519-BSD1	LCSD	9.7605	10.000	mg/L	97.6	0.9	85 - 115	20	
Total Recoverable Magnesium	B139519-BS1	LCS	9.8074	10.000	mg/L	98.1		85 - 115		
	B139519-BSD1	LCSD	9.8202	10.000	mg/L	98.2	0.1	85 - 115	20	
Total Recoverable Sodium	B139519-BS1	LCS	9.6752	10.000	mg/L	96.8		85 - 115		
	B139519-BSD1	LCSD	9.5299	10.000	mg/L	95.3	1.5	85 - 115	20	
Total Recoverable Potassium	B139519-BS1	LCS	9.4599	10.000	mg/L	94.6		85 - 115		
	B139519-BSD1	LCSD	9.4193	10.000	mg/L	94.2	0.4	85 - 115	20	
<b>QC Batch ID: B139520</b>										
Total Recoverable Calcium	B139520-BS1	LCS	9.7905	10.000	mg/L	97.9		85 - 115		
Total Recoverable Magnesium	B139520-BS1	LCS	9.5324	10.000	mg/L	95.3		85 - 115		
Total Recoverable Sodium	B139520-BS1	LCS	9.6269	10.000	mg/L	96.3		85 - 115		
Total Recoverable Potassium	B139520-BS1	LCS	9.4314	10.000	mg/L	94.3		85 - 115		
<b>QC Batch ID: B139762</b>										
Perchlorate	B139762-BS1	LCS	10.077	10.000	ug/L	101		85 - 115		

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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			
								Percent Recovery	RPD	Percent Recovery	Lab
<b>QC Batch ID: B138223</b>		Used client sample: N									
Bicarbonate	DUP	2210667-01	302.77	301.67		mg/L	0.4		10		
Carbonate	DUP	2210667-01	ND	ND		mg/L			10		
Total Alkalinity as CaCO3	DUP	2210667-01	248.32	247.42		mg/L	0.4		10		
pH	DUP	2210667-01	7.6100	7.6400		pH Units	0.4		20		
<b>QC Batch ID: B139143</b>		Used client sample: Y - Description: MW-20-3, 05/06/2022 10:30									
Chloride	DUP	2210766-02	53.968	54.009		mg/L	0.1		10		
	MS	2210766-02	53.968	109.53	50.505	mg/L		110		80 - 120	
	MSD	2210766-02	53.968	109.34	50.505	mg/L	0.2	110	10	80 - 120	
Nitrate as N	DUP	2210766-02	0.19000	0.18700		mg/L	1.6		10		
	MS	2210766-02	0.19000	5.4960	5.0505	mg/L		105		80 - 120	
	MSD	2210766-02	0.19000	5.4929	5.0505	mg/L	0.1	105	10	80 - 120	
Sulfate	DUP	2210766-02	7.0880	7.3940		mg/L	4.2		10		
	MS	2210766-02	7.0880	116.74	101.01	mg/L		109		80 - 120	
	MSD	2210766-02	7.0880	116.54	101.01	mg/L	0.2	108	10	80 - 120	
<b>QC Batch ID: B139322</b>		Used client sample: Y - Description: MW-20-3, 05/06/2022 10:30									
Nitrite as N	DUP	2210766-02	ND	0.010145		mg/L			10		J
	MS	2210766-02	ND	0.49823	0.52632	mg/L		94.7		90 - 110	
	MSD	2210766-02	ND	0.50086	0.52632	mg/L	0.5	95.2	10	90 - 110	
<b>QC Batch ID: B139327</b>		Used client sample: N									
Total Dissolved Solids @ 180 C	DUP	2210650-01	11650	11600		mg/L	0.4		10		
<b>QC Batch ID: B139519</b>		Used client sample: N									
Total Recoverable Calcium	DUP	2210682-01	65.507	66.017		mg/L	0.8		20		
	MS	2210682-01	65.507	76.096	10.000	mg/L		106		75 - 125	
	MSD	2210682-01	65.507	74.291	10.000	mg/L	2.4	87.8	20	75 - 125	
Total Recoverable Magnesium	DUP	2210682-01	19.196	19.384		mg/L	1.0		20		
	MS	2210682-01	19.196	31.361	10.000	mg/L		122		75 - 125	
	MSD	2210682-01	19.196	28.570	10.000	mg/L	9.3	93.7	20	75 - 125	
Total Recoverable Sodium	DUP	2210682-01	29.092	29.233		mg/L	0.5		20		
	MS	2210682-01	29.092	39.064	10.000	mg/L		99.7		75 - 125	
	MSD	2210682-01	29.092	38.152	10.000	mg/L	2.4	90.6	20	75 - 125	
Total Recoverable Potassium	DUP	2210682-01	2.9920	3.0353		mg/L	1.4		20		
	MS	2210682-01	2.9920	12.624	10.000	mg/L		96.3		75 - 125	
	MSD	2210682-01	2.9920	12.601	10.000	mg/L	0.2	96.1	20	75 - 125	
<b>QC Batch ID: B139520</b>		Used client sample: N									

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 Project: JPL- GW Monitoring Wells-CLP  
 Project Number: 2Q22  
 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	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139520</b>		Used client sample: N									
Total Recoverable Calcium	DUP	2210682-07	59.143	55.745		mg/L	5.9		20		
	MS	2210682-07	59.143	66.987	10.000	mg/L		78.4		75 - 125	
	MSD	2210682-07	59.143	66.343	10.000	mg/L	1.0	72.0	20	75 - 125	A03
Total Recoverable Magnesium	DUP	2210682-07	18.061	17.044		mg/L	5.8		20		
	MS	2210682-07	18.061	28.413	10.000	mg/L		104		75 - 125	
	MSD	2210682-07	18.061	29.215	10.000	mg/L	2.8	112	20	75 - 125	
Total Recoverable Sodium	DUP	2210682-07	27.901	26.290		mg/L	5.9		20		
	MS	2210682-07	27.901	36.743	10.000	mg/L		88.4		75 - 125	
	MSD	2210682-07	27.901	36.468	10.000	mg/L	0.8	85.7	20	75 - 125	
Total Recoverable Potassium	DUP	2210682-07	2.9242	2.7675		mg/L	5.5		20		
	MS	2210682-07	2.9242	12.393	10.000	mg/L		94.7		75 - 125	
	MSD	2210682-07	2.9242	12.380	10.000	mg/L	0.1	94.6	20	75 - 125	
<b>QC Batch ID: B139762</b>		Used client sample: N									
Perchlorate	DUP	2210682-01	ND	ND		ug/L			15		
	MS	2210682-01	ND	8.4309	10.101	ug/L		83.5		80 - 120	
	MSD	2210682-01	ND	8.5131	10.101	ug/L	1.0	84.3	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: B139519</b>						
Total Recoverable Iron	B139519-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B139520</b>						
Total Recoverable Iron	B139520-BLK1	ND	ug/L	50	30	
<b>QC Batch ID: B139523</b>						
Total Recoverable Arsenic	B139523-BLK2	ND	ug/L	2.0	0.70	
Total Recoverable Chromium	B139523-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Lead	B139523-BLK1	ND	ug/L	1.0	0.10	
<b>QC Batch ID: B139776</b>						
Hexavalent Chromium	B139776-BLK1	ND	mg/L	0.00020	0.000020	

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Reported: 06/06/2022 17:37  
 Project: JPL- GW Monitoring Wells-CLP  
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 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: B139519</b>											
Total Recoverable Iron	B139519-BS1	LCS	1014.5	1000.0	ug/L	101		85 - 115			
	B139519-BSD1	LCSD	1005.1	1000.0	ug/L	101	0.9	85 - 115	20		
<b>QC Batch ID: B139520</b>											
Total Recoverable Iron	B139520-BS1	LCS	978.98	1000.0	ug/L	97.9		85 - 115			
<b>QC Batch ID: B139523</b>											
Total Recoverable Arsenic	B139523-BS2	LCS	92.259	100.00	ug/L	92.3		85 - 115			
Total Recoverable Chromium	B139523-BS1	LCS	39.956	40.000	ug/L	99.9		85 - 115			
Total Recoverable Lead	B139523-BS1	LCS	98.611	100.00	ug/L	98.6		85 - 115			
<b>QC Batch ID: B139776</b>											
Hexavalent Chromium	B139776-BS1	LCS	0.019676	0.020000	mg/L	98.4		90 - 110			

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## Metals Analysis

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B139519</b>		Used client sample: N									
Total Recoverable Iron	DUP	2210682-01	ND	ND		ug/L			20		
	MS	2210682-01	ND	1002.9	1000.0	ug/L		100		75 - 125	
	MSD	2210682-01	ND	987.37	1000.0	ug/L	1.6	98.7	20	75 - 125	
<b>QC Batch ID: B139520</b>		Used client sample: N									
Total Recoverable Iron	DUP	2210682-07	44.693	42.088		ug/L	6.0		20		J
	MS	2210682-07	44.693	1024.4	1000.0	ug/L		98.0		75 - 125	
	MSD	2210682-07	44.693	1058.2	1000.0	ug/L	3.2	101	20	75 - 125	
<b>QC Batch ID: B139523</b>		Used client sample: N									
Total Recoverable Arsenic	DUP	2210682-07	1.1100	0.92700		ug/L	18.0		20		J
	MS	2210682-07	1.1100	102.48	100.00	ug/L		101		70 - 130	
	MSD	2210682-07	1.1100	103.46	100.00	ug/L	0.9	102	20	70 - 130	
<b>Total Recoverable Chromium</b>	DUP	<b>2210682-07</b>	<b>3.9300</b>	<b>5.0800</b>		<b>ug/L</b>	<b>25.5</b>		<b>20</b>		<b>A02</b>
	MS	<b>2210682-07</b>	<b>3.9300</b>	<b>43.867</b>	<b>40.000</b>	<b>ug/L</b>		<b>99.8</b>		<b>70 - 130</b>	
	MSD	<b>2210682-07</b>	<b>3.9300</b>	<b>43.968</b>	<b>40.000</b>	<b>ug/L</b>	<b>0.2</b>	<b>100</b>	<b>20</b>	<b>70 - 130</b>	
Total Recoverable Lead	DUP	2210682-07	ND	ND		ug/L			20		
	MS	2210682-07	ND	98.036	100.00	ug/L		98.0		70 - 130	
	MSD	2210682-07	ND	98.709	100.00	ug/L	0.7	98.7	20	70 - 130	
<b>QC Batch ID: B139776</b>		Used client sample: N									
Hexavalent Chromium	DUP	2210682-01	0.000076000	0.000077000		mg/L	1.3		10		J
	MS	2210682-01	0.000076000	0.020359	0.020202	mg/L		100		90 - 110	
	MSD	2210682-01	0.000076000	0.020102	0.020202	mg/L	1.3	99.1	10	90 - 110	

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## Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A02	The difference between duplicate readings is less than the quantitation limit.
A03	The sample concentration was more than 4 times the spike level.
A10	Detection and quantitation limits were raised due to matrix interference.
S05	The sample holding time was exceeded.
V11	The Continuing Calibration Verification (CCV) recovery was not within established control limits.