

Water Quality Monitoring Report

Second 2020 Semi-Annual Event

Vista Landfill Class III

Vista Landfill, LLC



February 24, 2021

PREPARED FOR:



Vista Landfill, LLC
242 West Keene Road
Apopka, Florida 32703

PREPARED BY:



Carlson Environmental Consultants
305 South Main Street
Monroe, North Carolina 28112

STATEMENT OF GEOLOGIC REVIEW

In general accordance with Chapter 62-701, Florida Administrative Code (F.A.C.), Solid Waste Management Facilities, this Groundwater Monitoring Report – Second 2020 Semi-Annual Monitoring Event for the Vista Landfill Site, located in Apopka, Florida, has been reviewed, signed and sealed by a registered Professional Geologist in the State of Florida, and is consistent with standard principles related to groundwater monitoring


Ken E. Guilbeault, P.G.
Florida License # 2907

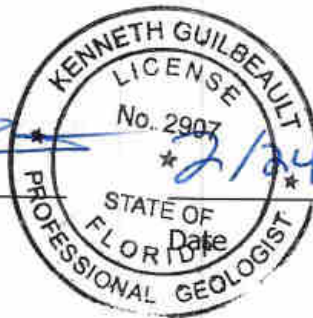
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TABLE OF CONTENTS

1	INTRODUCTION	1
2	BACKGROUND	1
	2.1 Site Location and Description	1
3	GEOLOGIC AND HYDROGEOLOGIC CHARACTERISTICS.....	4
	3.1 Shallow Surficial Aquifer (Upper Zone).....	4
	3.2 Intermediate Surficial Aquifer (Lower Zone)	8
	3.3 Floridan Aquifer (Deep Zone).....	8
4	MONITORING PROGRAM	9
	4.1 Groundwater Monitoring Program.....	9
	4.2 Sample Collection Analysis.....	12
5	WATER QUALITY MONITORING RESULTS.....	13
	5.1 Quality Assurance and Quality Control (QA/QC) Results.....	13
	5.2 Groundwater Quality	14
	5.2.1 Metals Exceedances	14
	5.2.2 Inorganic Parameters Exceedances	16
	5.2.3 Organic Parameters Exceedances.....	17
6	SUMMARY	18
	6.1 Groundwater Sampling Results.....	18

LIST OF FIGURES

Figure 1.	Site Location Map, Vista Landfill, Apopka, Florida	2
Figure 2.	Site Map, Vista Landfill, Apopka, Florida	3
Figure 3.	December 2020 Upper Surficial Water Table Map.....	6
Figure 4.	December 2020 Floridan Aquifer Potentiometric Map.....	7

LIST OF TABLES

Table 1.	Groundwater Elevation Measurements, December 2, 2020.....	5
Table 2.	Active Surficial Aquifer Groundwater Monitoring Wells at the Vista Landfill	9
Table 3.	Existing Monitoring Well and Piezometer Construction Details	10
Table 4.	Summary of December 2020 Groundwater Quality Analytical Results	15

LIST OF APPENDICES

Appendix A:	Laboratory Analytical Results and Field Forms
Appendix B:	Compact Disk Containing Report in .PDF Format and ADaPT File



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form #: 62-701 900(31), F.A.C.

Form Title: Water Quality Monitoring Certification

Effective Date: January 6, 2010

Incorporated in Rule 62-701.510(9), F.A.C.

WATER QUALITY MONITORING CERTIFICATION

PART I GENERAL INFORMATION

- (1) Facility Name Vista Landfill, LLC., Class III
Address 242 West Keene Road
City Apopka Zip 32703 County Orange
Telephone Number (407) 286-2920
- (2) WACS Facility ID 87801
- (3) DEP Permit Number 0165969-030-SO-MM
- (4) Authorized Representative's Name Sheree Grant Title Environmental Protection
Address 4978 LB McLeod Road
City Orlando Zip 32811 County Orange
Telephone Number (407) 902-1469
Email address (if available) sgrant@wm.com

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submission of false information including the possibility of fine and imprisonment.

2/19/21
(Date)

Sheree Grant
(Owner or Authorized Representative's Signature)

PART II QUALITY ASSURANCE REQUIREMENTS

Sampling Organization Professional Technical Support Services, Inc. (Pro-Tech)
Analytical Lab NELAC / HRS Certification # NELAP Certification E87487
Lab Name Pace Analytical National (Pace)
Address 12065 Lebanon Road, Mount Juliet, TN 37122
Phone Number (615) 758-5858
Email address (if available) skennedy@pacenational.com

Northwest District
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Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. 200 B
Jacksonville, FL 32256-7590
904-807-3300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
13051 N. Telecom Pky.
Tempe Terrace, FL
813-832-7600

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33902-2549
239-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-8600

1 INTRODUCTION

The Vista Landfill Class III (Site or VLF) is owned and operated by Vista Landfill, LLC in accordance with Florida Department of Environmental Protection (FDEP) Operation Permit Number 0165969-030-SO issued November 2, 2017. The Site is an active Class III waste landfill that serves Orange County in central Florida.

Carlson Environmental Consultants, PC (CEC) has been retained to report the results of semi-annual groundwater monitoring at the Site in accordance with the Monitoring Plan Implementation Schedule (MPIS) (Appendix 3) of the referenced permit.

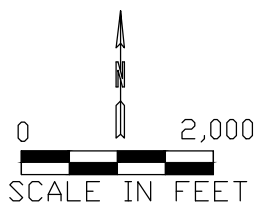
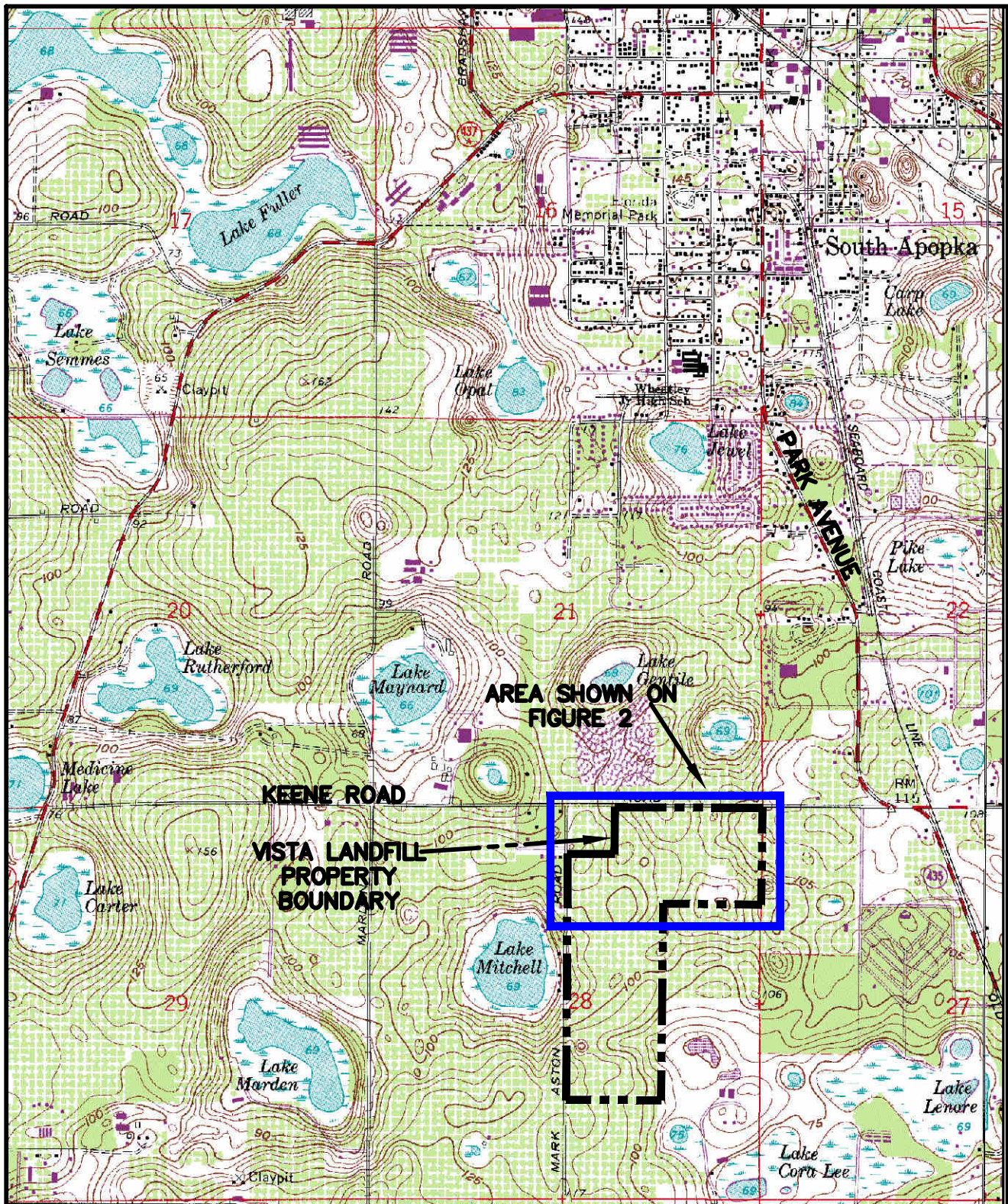
This report was prepared in accordance with Florida Department of Environmental Protection (FDEP) Permit/Certification No. 0165969-030-SO, Specific Condition Section 2.D, MPIS, and Chapter 62-701.510(8)(a) Florida Administrative Code (FAC). The Permit expires on June 1, 2036.

The second semi-annual 2020 sampling data was obtained during the routine semi-annual monitoring event conducted December 2, 3, and 4, 2020 (Appendix A). An electronic data deliverable (EDD) of the results in "ADaPT format" is attached as Appendix B. This EDD has been verified as uploadable into the latest version of ADaPT.

2 BACKGROUND

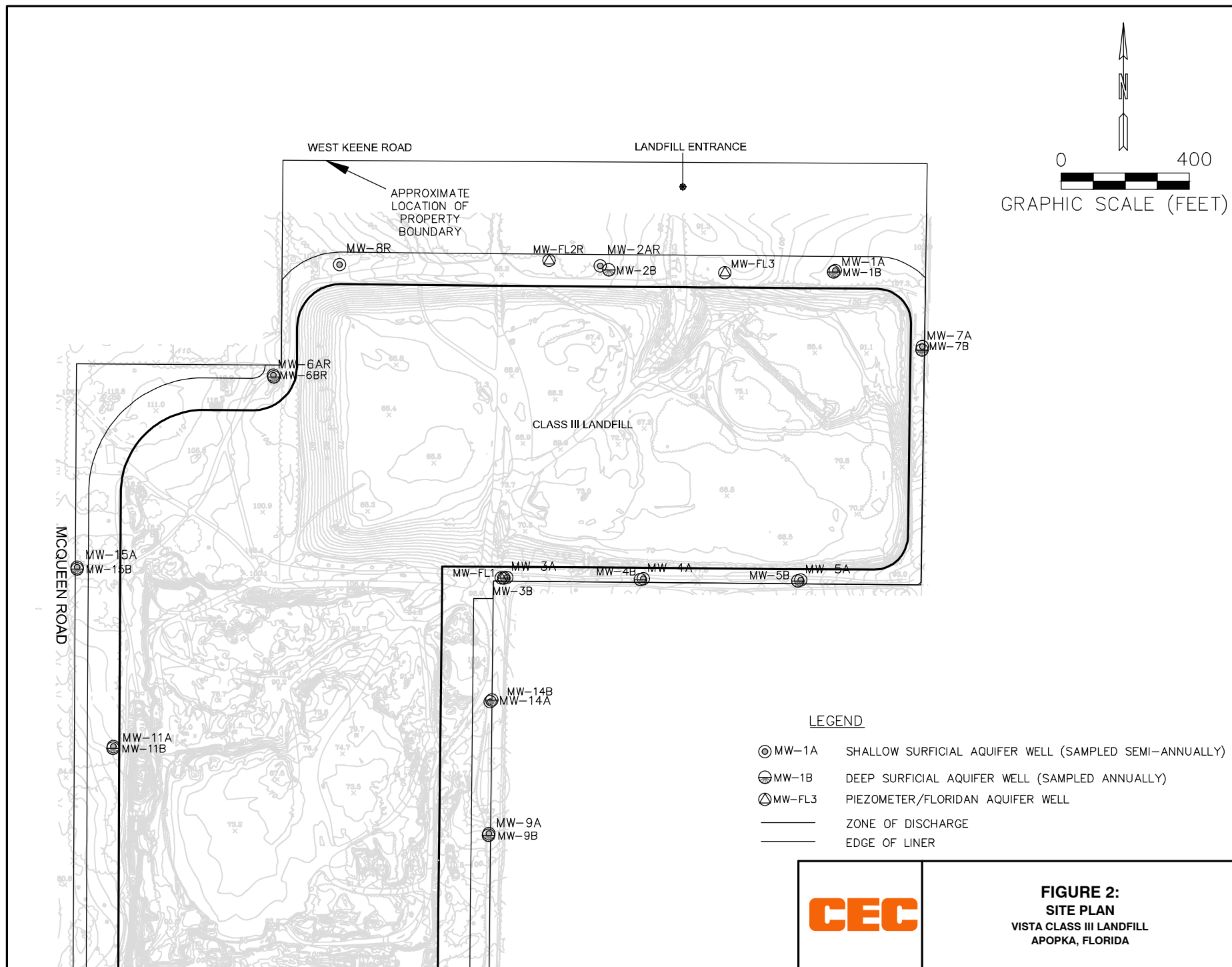
2.1 Site Location and Description

The Site is located approximately two miles south of Apopka, Florida, at 242 West Keene Road. The VLF lies south of Keene Road, west of Old Apopka-Clarcona Road, and east of Lake Mitchell in Orange County Florida (Figure 1). The Site is a Class III lined landfill with a leachate collection system. The bottom-liner system consists of three layers (from top to bottom): a 2-foot thick sand liner protective layer, a double-sided geocomposite drainage layer, and a 50-mil high density polyethylene (HDPE) geomembrane layer. Waste was initially placed in the landfill on November 17, 2008. The locations of the monitoring sites are shown on Figure 2.



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FIGURE 1:
SITE LOCATION MAP
VISTA CLASS III LANDFILL
APOPKA, FLORIDA



3 GEOLOGIC AND HYDROGEOLOGIC CHARACTERISTICS

Figure 1 shows the topography of the Site and region prior to the site being developed as a borrow pit and then as a landfill. The topography indicates the site is located in a region that is internally drained.

Based on evaluation of the Site hydrogeologic data, the groundwater at the Site primarily occurs in the Hawthorn Group and the underlying Floridan aquifer. The “surficial aquifer” consists of the water-bearing permeable zones of the Hawthorn Group that overlay the Floridan aquifer. The groundwater flow direction of the lower Hawthorn Group tends to mimic the pre-construction topography of the Site.

The Floridan aquifer underlies the surficial aquifer at the Site and is separated from it by the clay units of the Hawthorn Group.¹ Karst features (e.g., sinkholes) developed historically in the sediments overlying the upper Floridan aquifer, resulting in the internal drainage characteristics of the region. As a result, runoff and surficial aquifer groundwater flow moves toward and into these karst features, often resulting in development of surface water bodies such as Lake Mitchell, which is located west of the Site (Figure 1).

For this semi-annual report, CEC performed the groundwater flow assessment of the surficial aquifer using groundwater depth to water measurements obtained on December 2, 2020. The assessment included the compilation of groundwater depth measurements, the calculation of groundwater elevations, and plotting the data onto site figures depicting the estimated groundwater flow direction. Table 1 lists the monitoring locations, depths to water, and groundwater elevations. Water level maps generated for the shallow surficial aquifer and lower surficial aquifer are presented in Figures 3 and 4. These maps are generated using Surfer® Version 16, groundwater contouring computer program, with the interpretation verified by an CEC hydrogeologist.

3.1 Shallow Surficial Aquifer (Upper Zone)

The shallow surficial aquifer is defined here as the uppermost water-bearing zone of the undifferentiated sands and clayey sands that are part of the Hawthorn Group. A water level map of the shallow surficial aquifer was prepared from shallow surficial well data for the December 2020 sampling event and is provided on Figure 3.

Groundwater flow typically is expected to be perpendicular to the water level contours. Therefore, the approximate direction of groundwater flow in the shallow surficial aquifer is primarily to the southwest. A portion of the groundwater enters from the northwest section of the site and flows south. At MW-14A, there is a groundwater high and flow radiates outward. This groundwater flow configuration results from a combination of recharge from rainfall infiltration outside the bottom liner, interchange of groundwater with the underlying intermediate surficial aquifer, and

¹ The Rust Environment and Infrastructure (RUST) August 1996 (Revised September 1998) report entitled “Keene Road Hydrogeologic Evaluation” Prepared for Waste Management Inc.

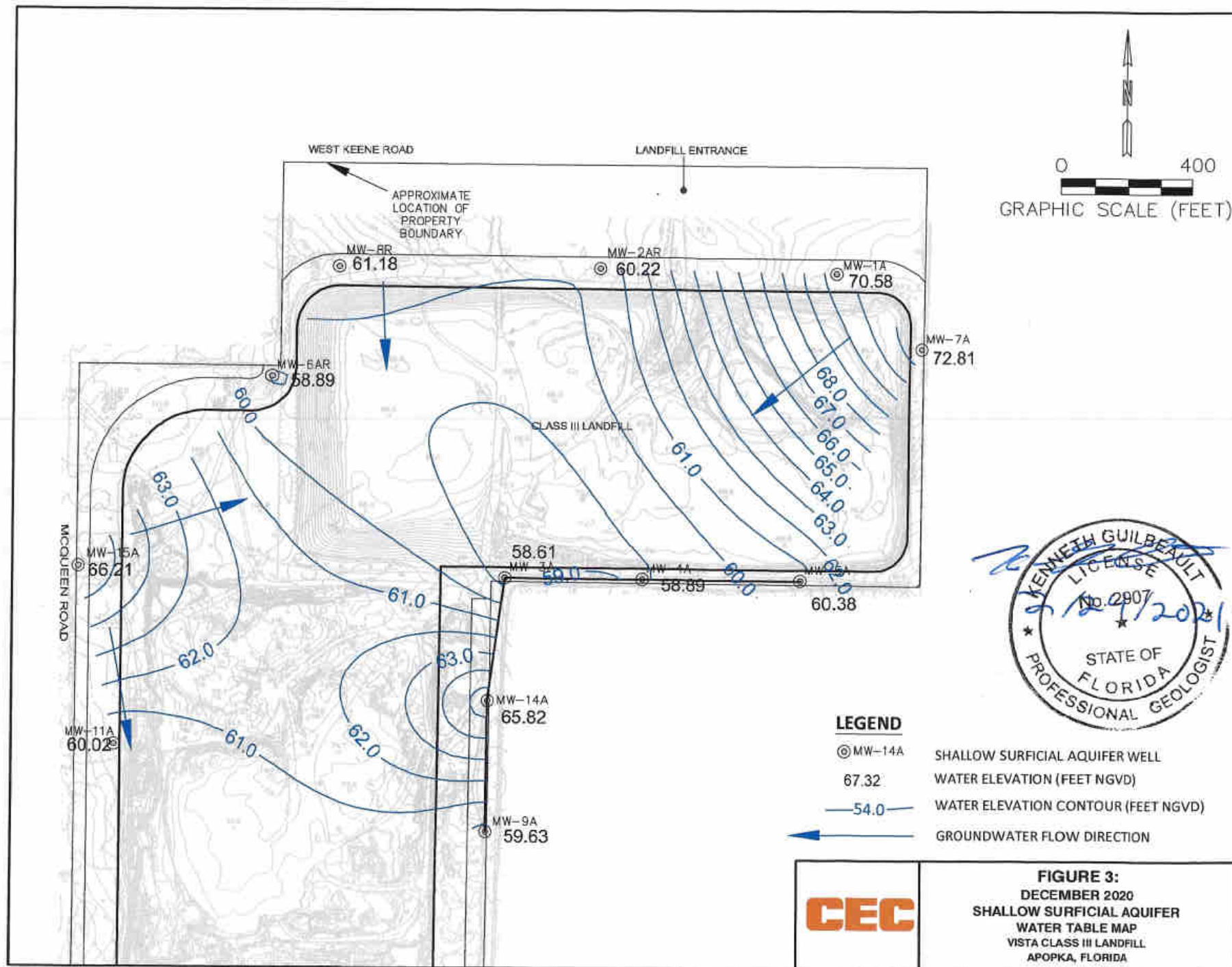
**Table 1. Groundwater Elevation Measurements
Vista Landfill, Apopka, Florida**

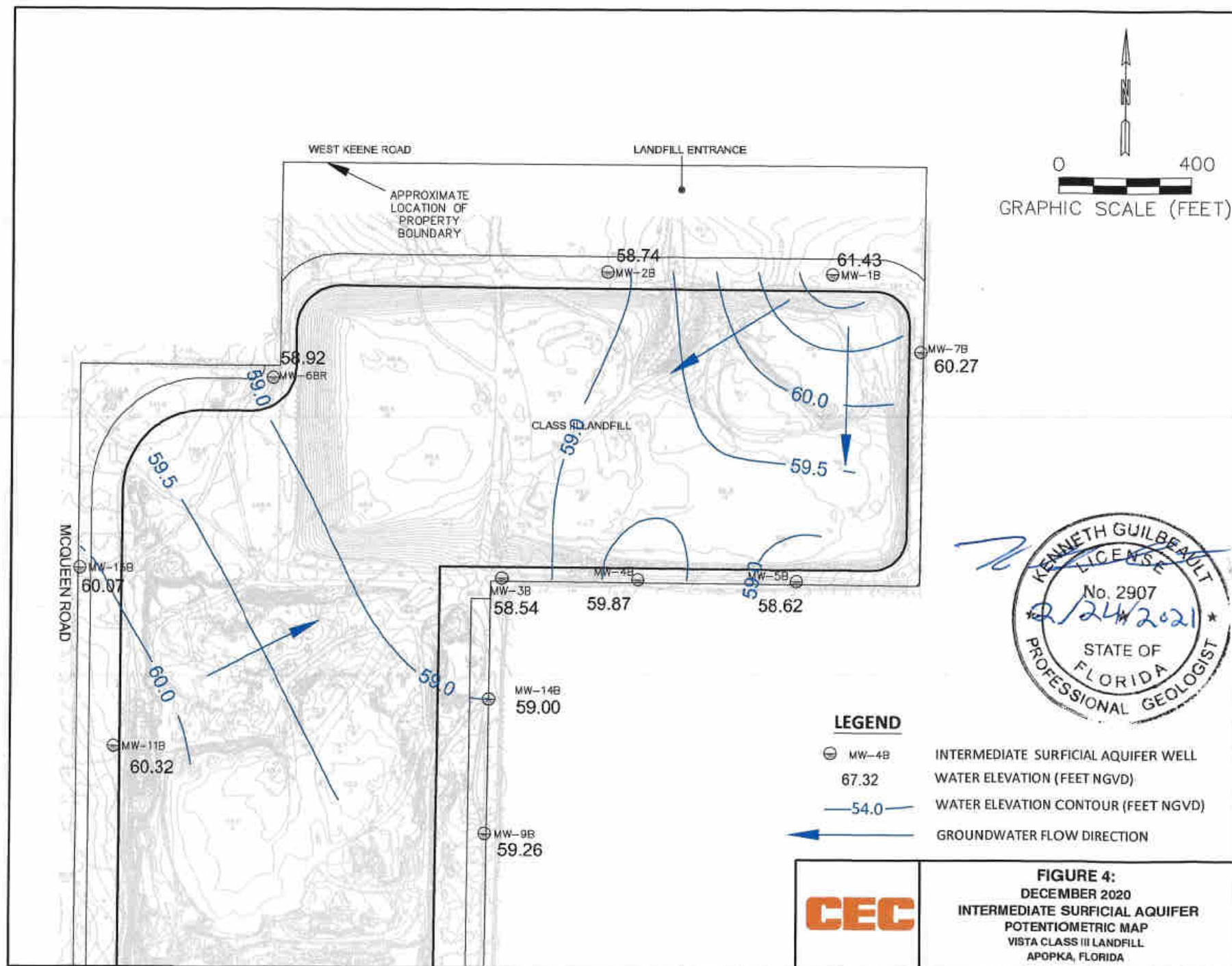
Well No.	TOC Elevation (Feet NGVD)	Depth to Water (Feet Below Top of Casing)	December 1, 2020 Groundwater Elevation (Feet NGVD)
MW-1A	109.47	38.89	70.58
MW-1B	109.53	48.10	61.43
MW-2AR	87.22	27.00	60.22
MW-2B	88.46	29.72	58.74
MW-3A	92.87	34.26	58.61
MW-3B	93.06	34.52	58.54
MW-4A	82.04	23.15	58.89
MW-4B	83.18	23.31	59.87
MW-5A	81.86	21.48	60.38
MW-5B	81.27	22.65	58.62
MW-6AR	104.11	45.22	58.89
MW-6BR	103.99	45.07	58.92
MW-7A	109.26	36.45	72.81
MW-7B	109.13	48.86	60.27
MW-8R	99.60	38.20	61.40
MW-9A	99.45	39.82	59.63
MW-9B	99.52	40.26	59.26
MW-11A	96.35	36.33	60.02
MW-11B	96.37	36.05	60.32
MW-14A	100.62	34.80	65.82
MW-14B	100.10	41.10	59.00
MW-15A	105.27	39.06	66.21
MW-15B	105.15	45.08	60.07
MW-FL1	93.16	34.56	58.60
MW-FL2R	86.76	25.29	61.47
MW-FL3	97.49	39.24	58.25

Notes:

NGVD = National Geodetic Vertical Datum, 1929.

TOC = Top of Casing.





lateral inflow to the shallow surficial aquifer from outside the Site. The flow direction is consistent with previous flow assessments at the Site.

3.2 Intermediate Surficial Aquifer (Lower Zone)

A potentiometric map of the intermediate surficial aquifer was prepared from intermediate surficial well data for the December 2020 sampling event (Figure 4). Groundwater flow within the intermediate surficial aquifer beneath the Site apparently consists of multiple flow regimes, as indicated by the groundwater flow direction arrows on Figure 4. Groundwater entering from the site's western boundary flows east and northeast towards a slight low on the site's northern boundary. A portion of the groundwater enters near the northeast corner of the site and moves to the south and southwest. This groundwater flow configuration is a combination of interchange of groundwater with the overlying shallow surficial aquifer and lateral inflow to the intermediate surficial aquifer from outside the Site. These flow directions are consistent with previous flow assessments at the Site.

3.3 Floridan Aquifer (Deep Zone)

Due to the limited number of "FL" zone wells for the site (MW-FL2R is a deep surficial aquifer monitoring well), potentiometric maps were not prepared. Regional potentiometric maps for the Floridan aquifer indicate that flow in the aquifer at the Site is towards the northeast. This is confirmed by the water levels observed at the Site at Floridan aquifer groundwater monitoring wells MW-FL1 and MW-FL3 (see Table 1).

4 MONITORING PROGRAM

The monitoring program consists of Shallow and Intermediate surficial aquifer groundwater monitoring and Floridan Aquifer groundwater monitoring. Semi-annual reporting of the results of groundwater sampling is performed in accordance with the Site's MPIS and rule 62-701.730 (8)(c).

4.1 Groundwater Monitoring Program

The surficial aquifer groundwater currently is monitored at the site at 23 locations. The surficial aquifer is monitored in two zones: the shallow zone ("A" wells) and the lower zone ("B" wells). The shallow zone is monitored semi-annually and the lower zone is sampled annually, during the December sampling event. The lower zone wells were sampled during the December 2020 sampling event (this monitoring event). The deep zone wells are used as piezometers with no routine sampling unless there are verified landfill impacts in the lower zone water unit.

Well and well/piezometer locations are shown on Figure 2. The monitoring wells, with their monitored zone and permitted designations as background or compliance, are listed in Table 2. The construction details for the 26 monitoring wells and piezometers comprising the monitoring system are included in Table 3.

Table 2. Active Surficial Aquifer Groundwater Monitoring Wells at the Vista Landfill

Shallow Zone	Lower Zone
Background Monitoring Wells	
MW-1A	MW-1B
MW-2AR	MW-2B
MW-6AR	MW-6BR
MW-7A	
MW-8R	
Compliance Monitoring Wells	
MW-3A	MW-3B
MW-4A	MW-4B
MW-5A	MW-5B
	MW-7B
MW-9A	MW-9B
MW-11A	MW-11B
MW-14A	MW-14B
MW-15A	MW-15B

Note:

1. Wells listed on the same row are part of a cluster of wells.

TABLE 3. EXISTING MONITORING LOCATIONS AND CONSTRUCTION DETAILS, VISTA LANDFILL, APOPKA, FLORIDA

WACS ID	Water Quality Monitoring Site ID	Date Installed	Date Abandoned	Well Type	Aquifer Monitored	Top of Casing Elevation (NGVD)	Total Well Depth (Feet BLS)	Outer Casing Diameter/ Depth	Well Diameter	Screen Slot Size	Screen Length (feet)	Top of Screen (Feet BLS)	Bottom of Screen (Feet BLS)	Top of Screen (Feet NGVD)	Bottom of Screen (Feet NGVD)	Northing (NAD 1983)	Easting (NAD 1983)	Latitude (NAD 1983)	Longitude (NAD 1983)
19335	MW-1A ¹	4/20/2004	NA	BG	Shallow Surficial	109.47	69	NA	2	0.006	20	49	69	57	37	1565469.28	492550.11	28° 38' 21.30"	81° 30' 36.28"
19336	MW-1B	4/20/2004	NA	BG	Intermediate Surficial	109.53	96	NA	2	0.010	10	86	96	20	10	1565465.40	492545.32	28° 38' 21.27"	81° 30' 36.33"
19337	MW-2AR	1/23/2007	NA	BG	Shallow Surficial	87.22	39.94	NA	2	0.006	10	29.44	39.44	59.91	49.91	1565481.98	491815.07	28° 38' 21.40"	81° 30' 44.53"
19338	MW-2B	4/22/2004	NA	BG	Intermediate Surficial	88.46	73	NA	2	0.006	10	63	73	20	10	1565471.82	491843.09	28° 38' 21.30"	81° 30' 44.21"
19339	MW-3A	4/13/2004	NA	CO	Shallow Surficial	92.87	56	NA	2	0.006	30	36	56	57	37	1564509.87	491522.95	28° 38' 11.76"	81° 30' 47.76"
19340	MW-3B	4/13/2004	NA	CO	Intermediate Surficial	93.06	83	NA	2	0.010	10	73	83	20	10	1564509.53	491514.75	28° 38' 11.76"	81° 30' 47.85"
19341	MW-4A	4/14/2004	NA	CO	Shallow Surficial	82.04	42	NA	2	0.006	20	22	42	57	37	1564505.59	491949.09	28° 38' 11.74"	81° 30' 42.98"
19342	MW-4B	4/14/2004	NA	CO	Intermediate Surficial	83.18	69	NA	2	0.006	10	59	69	20	10	1564505.16	491941.64	28° 38' 11.73"	81° 30' 43.06"
19343	MW-5A	4/14/2004	NA	CO	Shallow Surficial	81.86	40	NA	2	0.006	20	20	40	57	37	1564500.86	492441.55	28° 38' 11.71"	81° 30' 37.45"
19344	MW-5B	4/14/2004	NA	CO	Intermediate Surficial	81.27	67	NA	2	0.006	10	57	67	20	10	1564500.47	492433.39	28° 38' 11.71"	81° 30' 37.54"
19345	MW-6AR	1/30/2007	NA	BG	Shallow Surficial	104.11	69.37	NA	2	0.010	20	48.87	68.87	52.27	32.27	1565140.42	490793.55	28° 38' 17.97"	81° 30' 55.98"
19346	MW-6BR	1/30/2007	NA	BG	Intermediate Surficial	103.99	88.58	NA	2	0.010	10	78.08	88.08	22.98	12.98	1565137.25	490795.56	28° 38' 17.94"	81° 30' 55.95"
19347	MW-7A	4/20/2004	NA	BG	Shallow Surficial	109.26	69	NA	2	0.006	20	49	69	57	37	1565230.04	492821.74	28° 38' 18.95"	81° 30' 33.22"
19348	MW-7B	4/19/2004	NA	CO	Intermediate Surficial	109.13	96	NA	2	0.01	10	86	96	20	10	1565222.30	492821.61	28° 38' 18.87"	81° 30' 33.22"
19868	MW-8R	1/25/2007	NA	BG	Shallow Surficial	99.6	72.12	NA	2	0.006	10	61.62	71.72	35.05	25.05	1565489.06	490997.80	28° 38' 21.43"	81° 30' 53.70"
19869	MW-9A	5/26/2017	NA	CO	Shallow Surficial	99.45	60	NA	2	0.010	20	40	60			1563710.84	491467.69	28° 38' 03.85"	81° 30' 48.345"
19870	MW-9B	5/26/2017	NA	CO	Lower Surficial	99.52	85	NA	2	0.006	10	75	85			1563705.66	491466.69	28° 38' 03.79"	81° 30' 48.355"
19873	MW-11A	8/18/2017	NA	DE	Shallow Surficial	96.35	55	NA	2	0.010	20	35	55			1563983.69	490293.90	28° 38' 03.79"	81° 30' 48.355"
19874	MW-11B	8/25/2017	NA	DE	Lower Surficial	96.37	85	NA	2	0.006	10	75	85			1563977.43	490292.60	28° 38' 06.437"	81° 30' 01.542"
21926	MW-14A	5/26/2017	NA	CO	Shallow Surficial	100.62	55	NA	2	0.010	20	35	55			1564122.62	491470.84	28° 38' 07.927"	81° 30' 48.306"
21927	MW-14B	ND	NA	CO	Lower Surficial	100.1	ND	ND	2	ND	ND	ND	ND	ND	ND	1564128.82	491477.36	28° 38' 07.987"	81° 30' 48.254"
21928	MW-15A	5/26/2017	NA	CO	Shallow Surficial	105.27	65	NA	2	0.010	20	45	65			1564542.92	490180.97	28° 38' 12.032"	81° 31' 02.823"
21929	MW-15B	5/26/2017	NA	CO	Lower Surficial	105.15	90	NA	2	0.006	10	80	90			1564537.75	490180.69	28° 38' 11.979"	81° 31' 02.823"
19879	MW-FL1	4/13/2004	NA	CO	Floridan	93.16	125	NA	2	0.010	10	115	125	-45	-35	1564509.43	491507.05	28° 38' 11.76"	81° 30' 47.94"
19880	MW-FL2R	1/29/2007	NA	CO	Deep Surficial	86.76	129.95	6"/0' to 80'	2	0.006	10	119.45	129.45	-45.54	-35.54	1565501.29	491655.91	28° 38' 21.58"	81° 30' 46.32"
19881	MW-FL3	4/21/2004	NA	CO	Floridan	97.49	140	NA	2	0.010	10	130	140	-45	-35	1565463.35	492205.45	28° 38' 21.23"	81° 30' 40.15"

Notes:

- Survey Information was obtained from the May 25, 2007 Geosyntec Consultants Environmental Monitoring Location Map.
- Well construction information obtained from the July 2004, Collinas Group, Inc., Groundwater Monitoring Well Installation Report, Buttrey Landfill Parcel.
- Well construction information obtained from the March 15, 2007, Professional Service Industries, Inc., Monitoring Well Completion and Well Abandonment Report.
- NGVD = National Geodetic Vertical Datum of 1929.
- NAD 1983 = North American Datum of 1983.
- WACS = State Water Assurance Compliance System.
- BLS = Below Landsurface.
- NA = Not Applicable.
- BG = Background.
- CO = Compliance.
- ND = Data not available.
- OT = Other.
- ID = Identification.
- DE= Detection.

The current permit requires semi-annual sampling of the shallow zone and annual sampling of the lower zone for the field and laboratory parameters listed below.

Field Parameters

- Static Water Level (before purging)
- Specific Conductivity
- pH
- Dissolved Oxygen
- Turbidity
- Temperature

Shallow Zone Laboratory Parameters

- Total ammonia-nitrogen
- Chloride
- Iron
- Mercury
- Nitrate
- Sodium
- Total dissolved solids (TDS)
- Parameters listed in 40 Code of Federal Regulations (CFR) Part 258, Appendix I

Lower Zone Laboratory Parameters

- Total ammonia-nitrogen
- Chloride
- Sodium
- Nitrate

Lower zone wells should be sampled for the full list of parameters (see shallow zone laboratory parameters) if:

- The shallow well for the well cluster(s) shows a verified landfill impact; or
- The indicator data suggests through an increasing trend (or verified sudden jump far above background) that there is a landfill impact to the lower zone well(s).

4.2 Sample Collection Analysis

Groundwater sampling was conducted in accordance with F.A.C. Chapter 62-160 and FDEP's Standard Operating Procedures for Field Activities (DEP-SOP-001/01). ProTech field personnel collected groundwater samples for laboratory analysis from all monitoring wells listed in Section 4.1 between December 2, 3, and 4, 2020.

Groundwater monitoring wells that were sampled were purged with dedicated QED bladder pumps with Teflon-lined tubing extending to the top of the well casing. Wells were purged using low-flow sampling methods; a minimum of one well volume was purged prior to stabilization for wells where the water table is located within the well screen. Field parameters including static water level, pH, specific conductance, temperature, turbidity, dissolved oxygen, oxidation-reduction potential and color/sheen (by observation) were recorded during purging and prior to sampling. Once purging was complete, ProTech field personnel collected groundwater samples from the dedicated pumps and tubing in laboratory-provided containers, and placed the samples in coolers with ice. Pace Analytical National (Pace) is certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP).

5 WATER QUALITY MONITORING RESULTS

This section summarizes the results of the groundwater quality sampling for the second semi-annual sampling event performed December 2, 3, and 4, 2020.

5.1 Quality Assurance and Quality Control (QA/QC) Results

ProTech field personnel collected one equipment blank during the December 2020 sampling event and submitted the samples with trip blanks in coolers containing volatile organic compound (VOC) samples to Pace for analysis. The samples were received in good condition, properly preserved, and at proper temperatures. The laboratory provided additional QA/QC including analysis of method blanks, surrogates, laboratory control samples/laboratory control sample duplicates (LCS/LCSD), and matrix spike/matrix spike duplicates (MS/MSD). The QA/QC results for the laboratory reports associated with groundwater monitoring points from Pace Reports L1291962 are summarized below:

- Low levels of TDS were present in the method blank associated with QC batch WG1589693. Because the concentrations in the method blanks are not present at levels greater than the reporting limit, corrective action is deemed unnecessary.
- Low levels of chloride are present in the method blank associated with QC batch WG1587093. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.
- The ammonia as N MSD recovery was marginally above control limits at 111% (limits 90-110). Recoveries in the LCS/LCSD, and MS were acceptable, which indicates the analytical batch was in control. No further corrective action was required.
- The chloride MSD recovery was marginally above control limits at 111% (limits 90-110). Recoveries in the LCS/LCSD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.
- The chloride MS recovery was below control limits at 0% (limits 80-120). Recoveries in the LCS/LCSD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.
- Low levels of sodium and zinc were present in the method blank associated with QC batch WG1591856 and WG1593014. Because the concentrations in the method blanks are not present at levels greater than the reporting limit, corrective action is deemed unnecessary.
- The cis-1,3-dichloropropene and trans-1,4-dichloro-2-butene recoveries were marginally below control limits at 79.2% (limits 80-123) and 25.2% (limits 33-144), respectively. Recoveries in the MS and MSD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.
- The trans-1,4-dichloro-2-butene recoveries was marginally below control limits at 26.4% (limits 33-144). Recoveries in the MS and MSD were acceptable, which indicates the analytical batch was in control. No further corrective action was required.
- Due to high analyte concentration, several samples were analyzed at a dilution for various analyses. The reporting limits have been adjusted relative to the dilution required.
- Other QA/QC issues were not identified; therefore, the remaining results from the December 2020 event are considered acceptable without qualification.

5.2 Groundwater Quality

The groundwater quality detections and exceedances of the primary or secondary drinking water standards are summarized in Table 4. In accordance with Chapter 62-701, FAC, groundwater results were compared to their respective PDWS or secondary drinking water standard (SDWS) established in Chapter 62-550, FAC and incorporated via reference in Chapter 62-520, FAC. For this routine groundwater monitoring report, groundwater cleanup target levels (GCTLs) in Rule 62-777, FAC, were used for constituents that do not have a PDWS or SDWS to evaluate if a parameter is significantly above background levels. GCTLs are used as a screening for potential anomalies in the concentration data that may require further consideration or review. Appendix A includes the laboratory analytical data and field forms.

5.2.1 Metals Exceedances

Metals with concentrations in excess of applicable groundwater standards in select wells include:

- Iron
- Mercury

These exceedances are discussed below and are listed in Table 4.

5.2.1.1 Iron

The concentration of iron in the groundwater ranged from non-detect to 6,910 micrograms per liter ($\mu\text{g/L}$) during the December 2020 sampling event. The FDEP SDWS of 300 $\mu\text{g/L}$ for iron was exceeded at MW-7A (6,910 $\mu\text{g/L}$) and MW-11A (369 $\mu\text{g/L}$). The iron concentrations are not due to landfill operations. Iron at MW-7A will continue to be closely monitored in subsequent sampling events.

5.2.1.2 Mercury

During the December 2020 sampling event, mercury exceeded its PDWS of 2 $\mu\text{g/L}$ in background monitoring well MW-6AR (3.94 $\mu\text{g/L}$). Mercury has been detected in MW-6AR since December 2015.

A previous assessment was conducted during the December 2017 monitoring event to evaluate the source of the mercury detection during that time period. A dissolved methane sample was collected during the December 2017 monitoring event in order to assess if landfill gas was causing the mercury detection. Dissolved methane was not detected in a sample collected during the December 2017 monitoring event. This indicated that the source was not related to landfill gas and since this well was up-gradient from the landfill, the source appeared to be from off-site (possibly the Rapid Infiltration Basins (RIBs) facilities). Mercury analysis will continue to be performed during the next monitoring event.

Table 4. Summary of Groundwater Quality Analytical Results (Detected Parameters Only)
Vista Landfill, December 2020

Parameter	Units	MCL	Standard	MW-1A	MW-1B	MW-2AR	MW-2B	MW-3A	MW-3B	MW-4A	MW-4B	MW-5A	MW-5B	MW-6AR	MW-6BR	MW-7A	MW-7B	MW-8R	MW-9A	MW-9B	MW-11A	MW-11B	MW-14A	MW-14B	MW-15A	MW-15B
Well Type				BG	BG	BG	BG	CO	CO	CO	CO	CO	CO	BG	BG	BG	CO	BG	CO	CO	DE	DE	CO	CO	CO	CO
Volatile Organic Compounds																										
Acetone	ug/l	NS	NS	1.05 U	---	1.05 U	---	1.05 U	---	1.05 U	---	1.05 U	---	1.05 U	---	1.53 I	---	1.05 U	1.05 U	---	1.05 U	---	1.05 U	---	1.05 U	---
Chloroform	ug/l	NS	NS	0.302 I	---	0.086 U	---	0.086 U	---	0.086 U	---	0.086 U	---	0.181 I	---	0.086 U	---	0.086 U	0.086 U	---	0.086 U	---	0.086 U	---	0.086 U	---
Metals																										
Antimony	ug/l	6	PDWS	0.843 I	---	0.754 U	---	0.754 U	---	0.754 U	---	0.754 U	---	0.754 U	---	0.754 U	---	0.754 U	0.754 U	---	0.754 U	---	0.902 I	---	0.754 U	---
Arsenic	ug/l	10	PDWS	0.25 U	---	0.25 U	---	0.25 U	---	0.25 U	---	0.25 U	---	0.25 U	---	5.82	---	1.26 I	0.25 U	---	1.43 I	---	0.279 I	---	0.25 U	---
Barium	ug/l	2000	PDWS	32.1	---	11.6	---	28.1	---	13.5	---	14.5	---	35.9	---	25.7	---	26.8	5.68	---	21.2	---	10.2	---	5.87	---
Beryllium	ug/l	4	PDWS	0.12 U	---	0.12 U	---	0.12 U	---	0.12 U	---	0.12 U	---	0.127 I	---	0.12 U	---	0.12 U	0.12 U	---	0.12 U	---	0.12 U	---	0.12 U	---
Cadmium	ug/l	5	PDWS	0.7 U	---	0.7 U	---	0.7 U	---	0.7 U	---	0.7 U	---	1.08 I	---	0.7 U	---	0.7 U	0.7 U	---	0.961 I	---	0.7 U	---	0.7 U	---
Chromium	ug/l	100	PDWS	1.4 U	---	1.4 U	---	1.4 U	---	1.4 U	---	1.4 U	---	1.4 U	---	2.52 I	---	1.4 U	2.15 I	---	3.76 I	---	1.87 I	---	1.4 U	---
Iron	ug/l	300	SDWS	58.7 I	---	16 I	---	58.3 I	---	21.3 I	---	214	---	14.1 U	---	6910	---	14.1 U	33 I	---	369	---	170	---	37.8 I	---
Lead	ug/l	15	PDWS	1.9 U	---	1.9 U	---	1.9 U	---	1.9 U	---	1.9 U	---	1.9 U	---	1.91 I	---	1.9 U	1.9 U	---	1.9 U	---	1.9 U	---	1.9 U	---
Mercury	ug/l	2	PDWS	0.049 U	---	0.049 U	---	0.049 U	---	0.049 U	---	0.049 U	---	3.94	---	0.049 U	---	0.049 U	0.049 U	---	0.049 U	---	0.049 U	---	0.0646 I	---
Sodium	mg/l	160	PDWS	8.61	5.3	1.5	4.56	2.95	4.77	1.2	1.67	0.99 I	3.77	15	8.29	6.76	6.76	6.79	2.47	9.92	11	5.71	4.24	5.7	4.63	4.96
Thallium	ug/l	2	PDWS	0.19 U	---	0.231 I	---	0.19 U	---	0.202 I	---	0.19 U	---	0.19 U	---	0.19 U	---	0.19 U	0.19 U	---	0.343 I	---	0.19 U	---	0.19 U	---
Vanadium	ug/l	NS	NS	2.4 U	---	2.4 U	---	2.4 U	---	2.4 U	---	2.4 U	---	2.4 U	---	2.4 U	---	2.4 U	3.21 I	---	3.92 I	---	2.71 I	---	2.4 U	---
Zinc	ug/l	5000	SDWS	5.9 U	---	5.9 U	---	18 IV	---	172	---	24.8 IV	---	8.14 IV	---	5.9 U	---	9.49 I	5.9 U	---	5.9 U	---	5.9 U	---	5.9 U	---
General Chemistry																										
Chloride	mg/l	250	SDWS	18.4	8.42	1.24	5.32	5.27	11.7	2	2.74	1.7	7.98	43.1	23.1	11.7	5.63	14.8	4.52	21.5	12.9	7.02	3.88	6.45	8.11	10.6
Nitrate (N)	mg/l	10	PDWS	8.25	---	0.134	---	0.389	---	0.585	---	0.612	---	0.0227 U	---	6.09	---	4.45	0.377	---	10.7	---	1.37	---	1.03	---
Residues- Filterable (TDS)	mg/l	500	SDWS	303	---	38 V	---	39	---	52	---	24	---	200	---	187	---	183	64	---	201	---	37	---	38	---
Field Parameters																										
Dissolved Oxygen	MG/L	NS	NS	0.5	0.2	5.1	0.2	1.1	1.9	4.5	0.6	3.4	0.1	2.3	1	1	0.1	1.4	1.9	0.1	2.3	0.2	1.8	0.1	3.2	2.1
Dissolved Oxygen	% Sat.	<20	MPIS	6.16	2.38	61.73	2.42	13.07	22.57	51.46	6.86	39.63	1.17	27.32	12.1	11.66	1.14	16.94	21.73	1.14	26.3	2.24	20.98	1.19	36.59	24.01
Oxidation Reduction Potential	mV	NS	NS	87	108	119	144	153	-97	188	189	205	256	211	198	111	103	166	154	173	116	-80	192	142	192	160
pH	S.U.	6.5-8.5	SDWS	7.42	7.63	5.34	7.95	5.47	7.26	6.01	5.41	5.68	7.86	5.55	7.96	7.24	7.53	6.93	7.1	7.7	7.74	7.85	5.67	7.77	5.29	6.77
Specific Conductance	UMHOS/CM	NS	NS	448	227	78	175	92	250	97	71	76	224	289	322	311	209	285	123	348	325	278	85	154	90	146
Temperature, Water	Deg C	NS	NS	26	24.1	25	25.4	23.5	23.6	22.5	22.5	23.4	23	24.2	24.8	23.3	22.2	24.8	21.9	21.5	21.9	21.3	23.4	24.1	22	21.8
Turbidity	NTU	NS	NS	3.91	2.64	3.43	4.86	3.52	3.53	2.84	4.66	3.3	3.53	3.91	3.5	4.59	2.64	4.25	3.59	5.31	7.95	4.4	6.28	3.16	4.49	8.09

NOTES:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. Groundwater Clean-Up Target Level (62-777 F.A.C.) are used for screening purposes only to evaluate if a parameter is significantly above background levels.
4. MPIS = Monitoring Plan Implementation Schedule
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. Yellow shaded values indicate parameter concentrations exceeded respective PDWS or SDWS.
10. Degrees C = Degrees Celcius
11. umhos/cm = micromhos per centimeter
12. % Sat = Percent saturation
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical.
15. V = Analyte was detected in the sample and an associated method blank.
16. Q = Sample held beyond the accepted holding time.
17. BG= Background well
18. CO = Compliance well
19. Percent saturation of dissolved oxygen calculated from <http://www.fivecreeks.org/monitor/do.html>.
20. --- = Parameter not collected.

5.2.2 Inorganic Parameters Exceedances

Nitrate and dissolved oxygen exceeded their applicable standards at specific wells. Additionally, the pH concentrations at some monitoring wells fell outside the SDWS range for pH. These parameters are discussed below.

5.2.2.1 Nitrate

The FDEP PDWS of 10 milligrams per liter (mg/L) for nitrate was exceeded at detection well MW-11A (10.7 mg/L). These results were consistent with recent nitrate values obtained from this well.

No exceedances of nitrate occurred at other monitoring wells. Traditional leachate indicator parameters at MW-11A have remained relatively steady which indicates the nitrate is likely from a source other than the landfill. This well is located cross gradient to the landfill. Nitrate at MW-11A will continue to be closely monitored in subsequent sampling events.

5.2.2.2 Dissolved Oxygen

Dissolved oxygen values (calculated from field measurements) were above the Site's MPIS limit of not greater than 20 percent oxygen saturation in monitoring wells MW-2AR (61.73%), MW-3B (22.57%), MW-4A (51.46%), MW-5A (39.63%), MW-6AR (27.32%), MW-9A (21.73%), MW-11A (26.30%), MW-14A (20.98%), MW-15A (36.59%), and MW-15B (24.01%).

The monitoring wells were purged and sampled with a bladder pump at low flow rates as indicated by their relative gallons per minute (gpm) pumping rates as follows: MW-2AR (0.16 gpm), MW-3B (0.29 gpm), MW-4A (0.22 gpm), MW-5A (0.21 gpm), MW-6AR (0.22 gpm), MW-9A (0.23 gpm), MW-11A (0.23 gpm), MW-14A (0.24 gpm), MW-15A (0.28 gpm), and MW-15B (0.18 gpm). During the stabilization readings, the dissolved oxygen concentrations remained relatively steady. These measurements were collected using low flow techniques and are considered to be a natural characteristic of the aquifer system at these wells.

5.2.2.3 pH

The pH was below the SDWS range of 6.5 to 8.5 units in background monitoring wells MW-2AR (5.34 units) and MW-6AR (5.55 units) and in compliance wells MW-3A (5.47 units), MW-4A (6.01 units), MW-4B (5.41 units), MW-5A (5.68 units), MW-14A (5.67 units), and MW-15A (5.29 units). Low groundwater pH in this region is the result of low pH in precipitation, rapid recharge, and little buffering capacity of the surficial sands. The pH levels observed at the Site are characteristic of the groundwater in this region of Florida.

5.2.3 Organic Parameters Exceedances

There were no exceedances of organic parameters during the December 2020 monitoring event.

There were low level volatile organic compound (VOC) detections of acetone and chloroform. Acetone was detected at an estimated concentration in background monitoring well MW-7A (1.53 **I** µg/L) Chloroform was detected at an estimated concentration in background monitoring well MW-1A (0.3021 **I** µg/L) and MW-6AR (0.181 **I** µg/L). The "**I**" qualifier indicates that the reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

6 SUMMARY

This section summarizes the December 2020 semi-annual findings based on the groundwater sampling results.

6.1 Groundwater Sampling Results

The groundwater flow assessment shows the following:

- Shallow surficial aquifer groundwater in the vicinity of the site flows primarily toward the southwest corner of the landfill.
- Groundwater flow direction in the intermediate surficial aquifer is variable with groundwater flowing into the site from the northeast corner and flowing to the south and southwest.
- In the intermediate surficial aquifer, the groundwater also flows into the site from the southern and western boundaries flowing to the northern boundary and southeast corner of the site.
- Regional potentiometric maps for the Floridan aquifer indicate that flow is towards the northeast and is confirmed by the data from the Floridan aquifer monitoring wells.

The analytical results from analysis of the groundwater samples shows the following:

- There were no verified landfill impacts during the December 2020 monitoring event.
- Nitrate exceeded its PDWS in background monitoring wells MW-11A. The nitrate levels are attributed to background conditions, possibly associated with local RIBs facilities.
- Iron exceeded its SDWS in background monitoring well MW-7A and detection well MW-11A.
- Mercury exceeded its PDWS in background monitoring well MW-6AR. The mercury concentration is from an off-site source (possibly associated with local RIBs facilities) and not related to landfill operations.
- Dissolved oxygen values (field measurement) were above the Site's MPIS limit of not greater than 20% oxygen saturation in the groundwater monitoring wells MW-2AR, MW-3B, MW-4A, MW-5A, MW-6AR, MW-9A, MW-11A, MW-14A, MW-15A, and MW-15B. These measurements were collected using low flow techniques and are considered to be a natural characteristic of the aquifer system at these wells.
- Field pH levels fell outside the SDWS range for pH at select monitoring wells. The low pH levels in select monitoring wells are attributed to Florida's ambient groundwater quality characteristics due to low pH rainfall, rapid recharge, and the limited buffering capability of Florida's sandy soils.

Detection monitoring should continue as outlined in the MPIS.

APPENDIX A
LABORATORY ANALYTICAL RESULTS
AND FIELD FORMS

ANALYTICAL REPORT

January 27, 2021

Revised Report

Vista

Sample Delivery Group: L1291962
Samples Received: 12/03/2020
Project Number: 200
Description: Vista-Semiannual GW Parameters June Dec
Site: FL26
Report To: Sheree Grant
4978 LB McLeod Road
Orlando, FL 32811

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Entire Report Reviewed By:



Stacy Kennedy
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com



Cp: Cover Page	1	¹ Cp
Tc: Table of Contents	2	
Ss: Sample Summary	4	² Tc
Cn: Case Narrative	10	
Sr: Sample Results	12	³ Ss
MW-3A L1291962-01	12	
MW-3B L1291962-02	15	⁴ Cn
MW-9A L1291962-03	16	⁵ Sr
MW-9B L1291962-04	19	
MW-11A L1291962-05	20	⁶ Qc
MW-11B L1291962-06	23	
MW-14A L1291962-07	24	⁷ Gl
MW-14B L1291962-08	27	⁸ Al
MW-15A L1291962-09	28	
MW-15B L1291962-10	31	⁹ Sc
EQUIPMENT BLANK 1 L1291962-11	32	
TRIP BLANK 1 L1291962-12	34	
MW-1A L1291962-13	35	
MW-1B L1291962-14	38	
MW-4A L1291962-15	39	
MW-4B L1291962-16	42	
MW-5A L1291962-17	43	
MW-5B L1291962-18	46	
MW-6AR L1291962-19	47	
MW-6BR L1291962-20	50	
MW-7A L1291962-21	51	
MW-7B L1291962-22	54	
TRIP BLANK 2 L1291962-23	55	
MW-2AR L1291962-24	56	
MW-2B L1291962-25	59	
MW-8R L1291962-26	60	
TRIP BLANK 3 L1291962-27	63	
Qc: Quality Control Summary	64	
Gravimetric Analysis by Method 2540 C-2011	64	
Wet Chemistry by Method 300.0	67	
Wet Chemistry by Method 350.1	75	
Mercury by Method 7470A	79	
Metals (ICP) by Method 6010B	81	
Metals (ICPMS) by Method 6020	89	
Volatile Organic Compounds (GC/MS) by Method 8260B	93	



EDB / DBCP by Method 8011

GI: Glossary of Terms

AI: Accreditations & Locations

Sc: Sample Chain of Custody

96

98

99

100

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-3A L1291962-01 GW

				Collected by	Collected date/time	Received date/time
				Danny Armour	12/02/20 13:20	12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1588504	1	12/08/20 16:46	12/08/20 17:42	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586096	1	12/04/20 04:44	12/04/20 04:44	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593074	1	12/17/20 00:06	12/17/20 00:06	DGR	Mt. Juliet, TN
Mercury by Method 7470A	WG1589920	1	12/17/20 10:01	12/18/20 11:39	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1591856	1	12/15/20 10:40	12/15/20 20:15	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1589019	1	12/14/20 02:34	12/14/20 13:49	JDG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 16:18	12/07/20 16:18	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1586694	1	12/05/20 06:32	12/05/20 14:27	TAB	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

MW-3B L1291962-02 GW

				Collected by	Collected date/time	Received date/time
				Danny Armour	12/02/20 12:42	12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1592019	1	12/15/20 19:46	12/15/20 19:46	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593074	1	12/17/20 00:08	12/17/20 00:08	DGR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1591856	1	12/15/20 10:40	12/15/20 20:04	EL	Mt. Juliet, TN

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

MW-9A L1291962-03 GW

				Collected by	Collected date/time	Received date/time
				Danny Armour	12/02/20 10:38	12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1588504	1	12/08/20 16:46	12/08/20 17:42	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586096	1	12/04/20 02:21	12/04/20 02:21	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593074	1	12/17/20 00:13	12/17/20 00:13	DGR	Mt. Juliet, TN
Mercury by Method 7470A	WG1589920	1	12/17/20 10:01	12/18/20 11:41	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1591856	1	12/15/20 10:40	12/15/20 20:17	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1589019	1	12/14/20 02:34	12/14/20 14:53	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 16:37	12/07/20 16:37	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1586694	1	12/05/20 06:32	12/05/20 14:39	TAB	Mt. Juliet, TN

MW-9B L1291962-04 GW

				Collected by	Collected date/time	Received date/time
				Danny Armour	12/02/20 10:01	12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1592019	1	12/15/20 20:20	12/15/20 20:20	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593074	1	12/17/20 00:22	12/17/20 00:22	DGR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1591856	1	12/15/20 10:40	12/15/20 20:20	EL	Mt. Juliet, TN

MW-11A L1291962-05 GW

				Collected by	Collected date/time	Received date/time
				Danny Armour	12/02/20 09:27	12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1588504	1	12/08/20 16:46	12/08/20 17:42	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586096	1	12/04/20 01:55	12/04/20 01:55	ELN	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586096	5	12/04/20 02:08	12/04/20 02:08	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1591824	1	12/15/20 20:40	12/15/20 20:40	DGR	Mt. Juliet, TN
Mercury by Method 7470A	WG1589920	1	12/17/20 10:01	12/18/20 11:43	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1591856	1	12/15/20 10:40	12/15/20 20:23	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1589019	1	12/14/20 02:34	12/14/20 14:56	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 16:56	12/07/20 16:56	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1586694	1	12/05/20 06:32	12/05/20 14:51	TAB	Mt. Juliet, TN

ACCOUNT:

Vista

PROJECT:

200

SDG:

L1291962

DATE/TIME:

01/27/21 14:44

PAGE:

4 of 133

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-11B L1291962-06 GW

				Collected by Danny Armour	Collected date/time 12/02/20 08:51	Received date/time 12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1592019	1	12/15/20 21:12	12/15/20 21:12	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1591824	1	12/15/20 20:45	12/15/20 20:45	DGR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1591856	1	12/15/20 10:40	12/15/20 20:31	EL	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

MW-14A L1291962-07 GW

				Collected by Danny Armour	Collected date/time 12/02/20 12:04	Received date/time 12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1588504	1	12/08/20 16:46	12/08/20 17:42	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586096	1	12/04/20 04:18	12/04/20 04:18	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1591824	1	12/15/20 20:48	12/15/20 20:48	DGR	Mt. Juliet, TN
Mercury by Method 7470A	WG1589920	1	12/17/20 10:01	12/18/20 11:44	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1591856	1	12/15/20 10:40	12/15/20 20:34	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1589019	1	12/14/20 02:34	12/14/20 15:13	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 17:15	12/07/20 17:15	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1586694	1	12/05/20 06:32	12/05/20 15:05	TAB	Mt. Juliet, TN

MW-14B L1291962-08 GW

				Collected by Danny Armour	Collected date/time 12/02/20 11:22	Received date/time 12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1592019	1	12/15/20 21:29	12/15/20 21:29	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1591824	1	12/15/20 20:50	12/15/20 20:50	DGR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1591856	1	12/15/20 10:40	12/15/20 20:37	EL	Mt. Juliet, TN

MW-15A L1291962-09 GW

				Collected by Danny Armour	Collected date/time 12/02/20 08:16	Received date/time 12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1588504	1	12/08/20 16:46	12/08/20 17:42	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586096	1	12/04/20 01:42	12/04/20 01:42	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1591824	1	12/15/20 21:08	12/15/20 21:08	DGR	Mt. Juliet, TN
Mercury by Method 7470A	WG1589920	1	12/17/20 10:01	12/18/20 11:46	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1591856	1	12/15/20 10:40	12/15/20 20:40	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1589019	1	12/14/20 02:34	12/14/20 15:16	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 17:34	12/07/20 17:34	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1586694	1	12/05/20 06:32	12/05/20 15:18	TAB	Mt. Juliet, TN

MW-15B L1291962-10 GW

				Collected by Danny Armour	Collected date/time 12/02/20 07:37	Received date/time 12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1592019	1	12/15/20 21:47	12/15/20 21:47	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1591824	1	12/15/20 21:10	12/15/20 21:10	DGR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1591856	1	12/15/20 10:40	12/15/20 20:43	EL	Mt. Juliet, TN



EQUIPMENT BLANK 1 L1291962-11 GW

				Collected by	Collected date/time	Received date/time
				Danny Armour	12/02/20 13:55	12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1588504	1	12/08/20 16:46	12/08/20 17:42	CAT	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586096	1	12/04/20 04:31	12/04/20 04:31	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1591824	1	12/15/20 21:12	12/15/20 21:12	DGR	Mt. Juliet, TN
Mercury by Method 7470A	WG1589920	1	12/17/20 10:01	12/18/20 11:48	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1591856	1	12/15/20 10:40	12/15/20 20:45	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1589019	1	12/14/20 02:34	12/14/20 15:20	LAT	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1586694	1	12/05/20 06:32	12/05/20 15:31	TAB	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

TRIP BLANK 1 L1291962-12 GW

				Collected by	Collected date/time	Received date/time
				Danny Armour	12/02/20 00:00	12/03/20 10:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 15:01	12/07/20 15:01	ADM	Mt. Juliet, TN

MW-1A L1291962-13 GW

				Collected by	Collected date/time	Received date/time
				Danny Armour	12/03/20 11:33	12/04/20 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1588744	1	12/09/20 04:40	12/09/20 06:00	KLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586712	1	12/04/20 18:09	12/04/20 18:09	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593099	1	12/18/20 15:51	12/18/20 15:51	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1589921	1	12/15/20 12:28	12/16/20 10:22	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1592095	1	12/16/20 15:08	12/16/20 17:53	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1593139	1	12/16/20 20:47	12/17/20 00:59	LAT	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 17:53	12/07/20 17:53	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1589548	1	12/10/20 10:19	12/11/20 22:05	HMH	Mt. Juliet, TN

MW-1B L1291962-14 GW

				Collected by	Collected date/time	Received date/time
				Danny Armour	12/03/20 11:01	12/04/20 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1593001	1	12/17/20 02:12	12/17/20 02:12	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593099	1	12/18/20 15:56	12/18/20 15:56	JER	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1593014	1	12/17/20 17:26	12/17/20 21:11	CCE	Mt. Juliet, TN

MW-4A L1291962-15 GW

				Collected by	Collected date/time	Received date/time
				Danny Armour	12/03/20 08:00	12/04/20 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1588744	1	12/09/20 04:40	12/09/20 06:00	KLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586712	1	12/04/20 18:42	12/04/20 18:42	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593099	1	12/18/20 15:59	12/18/20 15:59	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1589921	1	12/15/20 12:28	12/16/20 10:28	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1593014	1	12/17/20 17:26	12/17/20 21:14	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1592098	1	12/16/20 10:03	12/16/20 16:39	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 18:12	12/07/20 18:12	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1589548	1	12/10/20 10:19	12/11/20 21:39	HMH	Mt. Juliet, TN

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-4B L1291962-16 GW

				Collected by Danny Armour	Collected date/time 12/03/20 07:22	Received date/time 12/04/20 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1593001	1	12/17/20 02:47	12/17/20 02:47	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593099	1	12/18/20 16:01	12/18/20 16:01	JER	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1593014	1	12/17/20 17:26	12/17/20 21:00	CCE	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

MW-5A L1291962-17 GW

				Collected by Danny Armour	Collected date/time 12/03/20 09:11	Received date/time 12/04/20 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1588744	1	12/09/20 04:40	12/09/20 06:00	KLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586712	1	12/04/20 19:50	12/04/20 19:50	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593099	1	12/18/20 16:03	12/18/20 16:03	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1589921	1	12/15/20 12:28	12/16/20 10:37	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1593014	1	12/17/20 17:26	12/17/20 21:16	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1592098	1	12/16/20 10:03	12/16/20 16:42	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 18:31	12/07/20 18:31	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1589548	1	12/10/20 10:19	12/11/20 22:17	HMH	Mt. Juliet, TN

MW-5B L1291962-18 GW

				Collected by Danny Armour	Collected date/time 12/03/20 08:34	Received date/time 12/04/20 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1593001	1	12/17/20 03:39	12/17/20 03:39	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593099	1	12/18/20 16:09	12/18/20 16:09	JER	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1593014	1	12/17/20 17:26	12/17/20 21:19	CCE	Mt. Juliet, TN

MW-6AR L1291962-19 GW

				Collected by Danny Armour	Collected date/time 12/03/20 12:55	Received date/time 12/04/20 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1588744	1	12/09/20 04:40	12/09/20 06:00	KLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586712	1	12/04/20 20:41	12/04/20 20:41	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593099	1	12/18/20 16:11	12/18/20 16:11	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1589921	1	12/15/20 12:28	12/16/20 10:39	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1593014	1	12/17/20 17:26	12/17/20 21:27	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1592098	1	12/16/20 10:03	12/16/20 16:46	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 18:50	12/07/20 18:50	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1589548	1	12/10/20 10:19	12/11/20 22:30	HMH	Mt. Juliet, TN

MW-6BR L1291962-20 GW

				Collected by Danny Armour	Collected date/time 12/03/20 12:12	Received date/time 12/04/20 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1593001	1	12/17/20 03:56	12/17/20 03:56	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593099	1	12/18/20 16:13	12/18/20 16:13	JER	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1593014	1	12/17/20 17:26	12/17/20 21:30	CCE	Mt. Juliet, TN

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-7A L1291962-21 GW

				Collected by Danny Armour	Collected date/time 12/03/20 10:27	Received date/time 12/04/20 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1588744	1	12/09/20 04:40	12/09/20 06:00	KLS	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1586712	1	12/04/20 20:58	12/04/20 20:58	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593099	1	12/18/20 16:14	12/18/20 16:14	JER	Mt. Juliet, TN
Mercury by Method 7470A	WG1589921	1	12/15/20 12:28	12/16/20 10:41	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1593014	1	12/17/20 17:26	12/17/20 21:33	CCE	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1592098	1	12/16/20 10:03	12/16/20 16:49	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 19:10	12/07/20 19:10	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1589548	1	12/10/20 10:19	12/11/20 22:43	HMH	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

MW-7B L1291962-22 GW

				Collected by Danny Armour	Collected date/time 12/03/20 09:44	Received date/time 12/04/20 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1593001	1	12/17/20 04:14	12/17/20 04:14	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593099	1	12/18/20 16:16	12/18/20 16:16	JER	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1593014	1	12/17/20 17:26	12/17/20 21:35	CCE	Mt. Juliet, TN

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

TRIP BLANK 2 L1291962-23 GW

				Collected by Danny Armour	Collected date/time 12/03/20 00:00	Received date/time 12/04/20 09:30
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 15:20	12/07/20 15:20	ADM	Mt. Juliet, TN

MW-2AR L1291962-24 GW

				Collected by Danny Armour	Collected date/time 12/04/20 08:38	Received date/time 12/05/20 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1589693	1	12/10/20 11:40	12/10/20 13:40	MML	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1587093	1	12/05/20 22:51	12/05/20 22:51	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593418	1	12/21/20 18:57	12/21/20 18:57	DGR	Mt. Juliet, TN
Mercury by Method 7470A	WG1589921	1	12/15/20 12:28	12/16/20 10:43	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1594013	1	12/18/20 11:13	12/21/20 20:52	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1594017	1	12/18/20 11:16	12/18/20 16:54	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 19:29	12/07/20 19:29	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1589548	1	12/10/20 10:19	12/11/20 22:56	HMH	Mt. Juliet, TN

MW-2B L1291962-25 GW

				Collected by Danny Armour	Collected date/time 12/04/20 08:01	Received date/time 12/05/20 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Wet Chemistry by Method 300.0	WG1594575	1	12/19/20 23:21	12/19/20 23:21	MCG	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593418	1	12/21/20 18:59	12/21/20 18:59	DGR	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1594013	1	12/18/20 11:13	12/21/20 20:40	EL	Mt. Juliet, TN

MW-8R L1291962-26 GW

				Collected by Danny Armour	Collected date/time 12/04/20 07:22	Received date/time 12/05/20 08:45
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1589693	1	12/10/20 11:40	12/10/20 13:40	MML	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1587093	1	12/05/20 23:22	12/05/20 23:22	ELN	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1593418	1	12/21/20 19:01	12/21/20 19:01	DGR	Mt. Juliet, TN

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



MW-8R L1291962-26 GW

Collected by
Danny Armour

Collected date/time
12/04/20 07:22

Received date/time
12/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1589921	1	12/15/20 12:28	12/16/20 10:45	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1594013	1	12/18/20 11:13	12/21/20 20:54	EL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020	WG1594017	1	12/18/20 11:16	12/18/20 16:58	JPD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 19:48	12/07/20 19:48	ADM	Mt. Juliet, TN
EDB / DBCP by Method 8011	WG1589548	1	12/10/20 10:19	12/11/20 23:09	HMH	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

TRIP BLANK 3 L1291962-27 GW

Collected by
Danny Armour

Collected date/time
12/04/20 00:00

Received date/time
12/05/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1587929	1	12/07/20 15:39	12/07/20 15:39	ADM	Mt. Juliet, TN

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Stacy Kennedy
Project Manager



Report Revision History

Level II Report - Version 1: 12/28/20 08:54

Project Comments

Report revised to reflect corrected qualifiers for batches WG1587093 and WG1591856. SK 1/26/21

Gravimetric Analysis by Method 2540 C-2011

Indicates the analyte was detected in both the sample and method blank.

Batch	Analyte	Lab Sample ID
WG1589693	Dissolved Solids	L1291962-24

Wet Chemistry by Method 300.0

Indicates the analyte was detected in both the sample and method blank.

Batch	Analyte	Lab Sample ID
WG1587093	Chloride	L1291962-24

The value is outside laboratory established criteria.

Batch	Lab Sample ID	Analytes
WG1586712	(MS) R3601062-8	Chloride

Wet Chemistry by Method 350.1

The value is outside laboratory established criteria.

Batch	Lab Sample ID	Analytes
WG1591824	(MSD) R3604210-4, L1291962-05	Ammonia Nitrogen



Metals (ICP) by Method 6010B

Indicates the analyte was detected in both the sample and method blank.

Batch	Analyte	Lab Sample ID
WG1591856	Sodium, Total Recoverable	L1291962-11
WG1591856	Zinc, Total Recoverable	L1291962-01
WG1593014	Zinc, Total Recoverable	L1291962-17, 19

Volatile Organic Compounds (GC/MS) by Method 8260B

The value is outside laboratory established criteria.

Batch	Lab Sample ID	Analytes
WG1587929	(LCS) R3601303-1, (LCSD) R3601303-2, L1291962-01, 03, 05, 07, 09, 12, 13, 15, 17, 19, 21, 23, 24, 26, 27	cis-1,3-Dichloropropene and trans-1,4-Dichloro-2-butene

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	58.61	ft
pH (On Site)	5.47	su
Temperature (on-site)	23.5	Deg. C
Specific Conductance (on site)	92	umhos/cm
Dissolved Oxygen (on-site)	1.1	mg/l
Turbidity (on-site)	3.52	NTU
eH/ORP (On Site)	153	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Dissolved Solids	39.0		2.82	10.0	1	12/08/2020 17:42	WG1588504

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Chloride	5.27		0.0519	1.00	1	12/04/2020 04:44	WG1586096
Nitrate as (N)	0.389		0.0227	0.100	1	12/04/2020 04:44	WG1586096

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/17/2020 00:06	WG1593074

Mercury by Method 7470A

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Mercury	0.0490	<u>U</u>	0.0490	0.200	1	12/18/2020 11:39	WG1589920

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Sodium, Total Recoverable	2.95		0.0111	1.00	1	12/15/2020 20:15	WG1591856

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/15/2020 20:15	WG1591856
Barium, Total Recoverable	28.1		1.70	5.00	1	12/15/2020 20:15	WG1591856
Cadmium, Total Recoverable	0.700	<u>U</u>	0.700	2.00	1	12/15/2020 20:15	WG1591856
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/15/2020 20:15	WG1591856
Chromium, Total Recoverable	1.40	<u>U</u>	1.40	10.0	1	12/15/2020 20:15	WG1591856
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/15/2020 20:15	WG1591856
Iron, Total Recoverable	58.3	<u>I</u>	14.1	100	1	12/15/2020 20:15	WG1591856
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/15/2020 20:15	WG1591856
Lead, Total Recoverable	1.90	<u>U</u>	1.90	5.00	1	12/15/2020 20:15	WG1591856
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/15/2020 20:15	WG1591856
Vanadium, Total Recoverable	2.40	<u>U</u>	2.40	20.0	1	12/15/2020 20:15	WG1591856
Zinc, Total Recoverable	18.0	<u>I V</u>	5.90	50.0	1	12/15/2020 20:15	WG1591856



Collected date/time: 12/02/20 13:20

L1291962

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	0.250	J	0.250	2.00	1	12/14/2020 13:49	WG1589019
Beryllium, Total Recoverable	0.120	J	0.120	2.00	1	12/14/2020 13:49	WG1589019
Thallium, Total Recoverable	0.190	J	0.190	2.00	1	12/14/2020 13:49	WG1589019

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	J	0.120	0.500	1	12/07/2020 16:18	WG1587929
1,1,1-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 16:18	WG1587929
1,1,2,2-Tetrachloroethane	0.130	J	0.130	0.500	1	12/07/2020 16:18	WG1587929
1,1,2-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 16:18	WG1587929
1,1-Dichloroethane	0.114	J	0.114	0.500	1	12/07/2020 16:18	WG1587929
1,1-Dichloroethene	0.188	J	0.188	0.500	1	12/07/2020 16:18	WG1587929
1,2,3-Trichloropropane	0.247	J	0.247	2.50	1	12/07/2020 16:18	WG1587929
1,2-Dichlorobenzene	0.101	J	0.101	0.500	1	12/07/2020 16:18	WG1587929
1,2-Dichloroethane	0.108	J	0.108	0.500	1	12/07/2020 16:18	WG1587929
1,2-Dichloropropane	0.190	J	0.190	0.500	1	12/07/2020 16:18	WG1587929
1,4-Dichlorobenzene	0.121	J	0.121	0.500	1	12/07/2020 16:18	WG1587929
2-Butanone (MEK)	1.28	J	1.28	5.00	1	12/07/2020 16:18	WG1587929
2-Hexanone	0.757	J	0.757	5.00	1	12/07/2020 16:18	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	J	0.823	5.00	1	12/07/2020 16:18	WG1587929
Acetone	1.05	J	1.05	25.0	1	12/07/2020 16:18	WG1587929
Acrylonitrile	0.873	J	0.873	5.00	1	12/07/2020 16:18	WG1587929
Benzene	0.0896	J	0.0896	0.500	1	12/07/2020 16:18	WG1587929
Bromochloromethane	0.145	J	0.145	0.500	1	12/07/2020 16:18	WG1587929
Bromodichloromethane	0.0800	J	0.0800	0.500	1	12/07/2020 16:18	WG1587929
Bromoform	0.186	J	0.186	0.500	1	12/07/2020 16:18	WG1587929
Bromomethane	0.157	J	0.157	2.50	1	12/07/2020 16:18	WG1587929
Carbon disulfide	0.101	J	0.101	0.500	1	12/07/2020 16:18	WG1587929
Carbon tetrachloride	0.159	J	0.159	0.500	1	12/07/2020 16:18	WG1587929
Chlorobenzene	0.140	J	0.140	0.500	1	12/07/2020 16:18	WG1587929
Chloroethane	0.141	J	0.141	2.50	1	12/07/2020 16:18	WG1587929
Chloroform	0.0860	J	0.0860	0.500	1	12/07/2020 16:18	WG1587929
Chloromethane	0.153	J	0.153	1.25	1	12/07/2020 16:18	WG1587929
Dibromochloromethane	0.128	J	0.128	0.500	1	12/07/2020 16:18	WG1587929
Dibromomethane	0.117	J	0.117	0.500	1	12/07/2020 16:18	WG1587929
Ethylbenzene	0.158	J	0.158	0.500	1	12/07/2020 16:18	WG1587929
Iodomethane	0.377	J	0.377	10.0	1	12/07/2020 16:18	WG1587929
Methylene Chloride	1.07	J	1.07	2.50	1	12/07/2020 16:18	WG1587929
Styrene	0.117	J	0.117	0.500	1	12/07/2020 16:18	WG1587929
Tetrachloroethene	0.199	J	0.199	0.500	1	12/07/2020 16:18	WG1587929
Toluene	0.412	J	0.412	0.500	1	12/07/2020 16:18	WG1587929
Trichloroethene	0.153	J	0.153	0.500	1	12/07/2020 16:18	WG1587929
Trichlorofluoromethane	0.130	J	0.130	2.50	1	12/07/2020 16:18	WG1587929
Vinyl acetate	0.645	J	0.645	5.00	1	12/07/2020 16:18	WG1587929
Vinyl chloride	0.118	J	0.118	0.500	1	12/07/2020 16:18	WG1587929
Xylenes, Total	0.316	J	0.316	1.50	1	12/07/2020 16:18	WG1587929
cis-1,2-Dichloroethene	0.0933	J	0.0933	0.500	1	12/07/2020 16:18	WG1587929
cis-1,3-Dichloropropene	0.0976	J	0.0976	0.500	1	12/07/2020 16:18	WG1587929
trans-1,2-Dichloroethene	0.152	J	0.152	0.500	1	12/07/2020 16:18	WG1587929
trans-1,3-Dichloropropene	0.222	J	0.222	0.500	1	12/07/2020 16:18	WG1587929
trans-1,4-Dichloro-2-butene	0.257	J	0.257	5.00	1	12/07/2020 16:18	WG1587929
(S) 4-Bromofluorobenzene	110			77.0-126		12/07/2020 16:18	WG1587929
(S) Toluene-d8	111			80.0-120		12/07/2020 16:18	WG1587929
(S) 1,2-Dichloroethane-d4	95.3			70.0-130		12/07/2020 16:18	WG1587929

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Collected date/time: 12/02/20 13:20

L1291962

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200	1	12/05/2020 14:27	WG1586694
Ethylene Dibromide	0.00240	U	0.00240	0.0100	1	12/05/2020 14:27	WG1586694

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	58.54	ft
pH (On Site)	7.26	su
Temperature (on-site)	23.6	Deg. C
Specific Conductance (on site)	250	umhos/cm
Dissolved Oxygen (on-site)	1.9	mg/l
Turbidity (on-site)	3.53	NTU
eH/ORP (On Site)	-97	mV

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	11.7		0.0519	1.00	1	12/15/2020 19:46	WG1592019

⁶ Qc

⁷ Gl

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/17/2020 00:08	WG1593074

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sodium, Total Recoverable	4.77		0.0111	1.00	1	12/15/2020 20:04	WG1591856



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
pH (On Site)	7.1	su
Temperature (on-site)	21.9	Deg. C
Specific Conductance (on site)	123	umhos/cm
Dissolved Oxygen (on-site)	1.9	mg/l
Turbidity (on-site)	3.59	NTU
eH/ORP (On Site)	154	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	64.0		2.82	10.0	1	12/08/2020 17:42	WG1588504

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	4.52		0.0519	1.00	1	12/04/2020 02:21	WG1586096
Nitrate as (N)	0.377		0.0227	0.100	1	12/04/2020 02:21	WG1586096

Wet Chemistry by Method 350.1

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/17/2020 00:13	WG1593074

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	0.0490	<u>U</u>	0.0490	0.200	1	12/18/2020 11:41	WG1589920

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium, Total Recoverable	2.47		0.0111	1.00	1	12/15/2020 20:17	WG1591856

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/15/2020 20:17	WG1591856
Barium, Total Recoverable	5.68		1.70	5.00	1	12/15/2020 20:17	WG1591856
Cadmium, Total Recoverable	0.700	<u>U</u>	0.700	2.00	1	12/15/2020 20:17	WG1591856
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/15/2020 20:17	WG1591856
Chromium, Total Recoverable	2.15	<u>I</u>	1.40	10.0	1	12/15/2020 20:17	WG1591856
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/15/2020 20:17	WG1591856
Iron, Total Recoverable	33.0	<u>I</u>	14.1	100	1	12/15/2020 20:17	WG1591856
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/15/2020 20:17	WG1591856
Lead, Total Recoverable	1.90	<u>U</u>	1.90	5.00	1	12/15/2020 20:17	WG1591856
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/15/2020 20:17	WG1591856
Vanadium, Total Recoverable	3.21	<u>I</u>	2.40	20.0	1	12/15/2020 20:17	WG1591856
Zinc, Total Recoverable	5.90	<u>U</u>	5.90	50.0	1	12/15/2020 20:17	WG1591856



Collected date/time: 12/02/20 10:38

L1291962

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	0.250	J	0.250	2.00	1	12/14/2020 14:53	WG1589019
Beryllium, Total Recoverable	0.120	J	0.120	2.00	1	12/14/2020 14:53	WG1589019
Antimony, Total Recoverable	0.754	J	0.754	2.00	1	12/14/2020 14:53	WG1589019
Thallium, Total Recoverable	0.190	J	0.190	2.00	1	12/14/2020 14:53	WG1589019

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	J	0.120	0.500	1	12/07/2020 16:37	WG1587929
1,1,1-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 16:37	WG1587929
1,1,2,2-Tetrachloroethane	0.130	J	0.130	0.500	1	12/07/2020 16:37	WG1587929
1,1,2-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 16:37	WG1587929
1,1-Dichloroethane	0.114	J	0.114	0.500	1	12/07/2020 16:37	WG1587929
1,1-Dichloroethene	0.188	J	0.188	0.500	1	12/07/2020 16:37	WG1587929
1,2,3-Trichloropropane	0.247	J	0.247	2.50	1	12/07/2020 16:37	WG1587929
1,2-Dichlorobenzene	0.101	J	0.101	0.500	1	12/07/2020 16:37	WG1587929
1,2-Dichloroethane	0.108	J	0.108	0.500	1	12/07/2020 16:37	WG1587929
1,2-Dichloropropane	0.190	J	0.190	0.500	1	12/07/2020 16:37	WG1587929
1,4-Dichlorobenzene	0.121	J	0.121	0.500	1	12/07/2020 16:37	WG1587929
2-Butanone (MEK)	1.28	J	1.28	5.00	1	12/07/2020 16:37	WG1587929
2-Hexanone	0.757	J	0.757	5.00	1	12/07/2020 16:37	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	J	0.823	5.00	1	12/07/2020 16:37	WG1587929
Acetone	1.05	J	1.05	25.0	1	12/07/2020 16:37	WG1587929
Acrylonitrile	0.873	J	0.873	5.00	1	12/07/2020 16:37	WG1587929
Benzene	0.0896	J	0.0896	0.500	1	12/07/2020 16:37	WG1587929
Bromochloromethane	0.145	J	0.145	0.500	1	12/07/2020 16:37	WG1587929
Bromodichloromethane	0.0800	J	0.0800	0.500	1	12/07/2020 16:37	WG1587929
Bromoform	0.186	J	0.186	0.500	1	12/07/2020 16:37	WG1587929
Bromomethane	0.157	J	0.157	2.50	1	12/07/2020 16:37	WG1587929
Carbon disulfide	0.101	J	0.101	0.500	1	12/07/2020 16:37	WG1587929
Carbon tetrachloride	0.159	J	0.159	0.500	1	12/07/2020 16:37	WG1587929
Chlorobenzene	0.140	J	0.140	0.500	1	12/07/2020 16:37	WG1587929
Chloroethane	0.141	J	0.141	2.50	1	12/07/2020 16:37	WG1587929
Chloroform	0.0860	J	0.0860	0.500	1	12/07/2020 16:37	WG1587929
Chloromethane	0.153	J	0.153	1.25	1	12/07/2020 16:37	WG1587929
Dibromochloromethane	0.128	J	0.128	0.500	1	12/07/2020 16:37	WG1587929
Dibromomethane	0.117	J	0.117	0.500	1	12/07/2020 16:37	WG1587929
Ethylbenzene	0.158	J	0.158	0.500	1	12/07/2020 16:37	WG1587929
Iodomethane	0.377	J	0.377	10.0	1	12/07/2020 16:37	WG1587929
Methylene Chloride	1.07	J	1.07	2.50	1	12/07/2020 16:37	WG1587929
Styrene	0.117	J	0.117	0.500	1	12/07/2020 16:37	WG1587929
Tetrachloroethene	0.199	J	0.199	0.500	1	12/07/2020 16:37	WG1587929
Toluene	0.412	J	0.412	0.500	1	12/07/2020 16:37	WG1587929
Trichloroethene	0.153	J	0.153	0.500	1	12/07/2020 16:37	WG1587929
Trichlorofluoromethane	0.130	J	0.130	2.50	1	12/07/2020 16:37	WG1587929
Vinyl acetate	0.645	J	0.645	5.00	1	12/07/2020 16:37	WG1587929
Vinyl chloride	0.118	J	0.118	0.500	1	12/07/2020 16:37	WG1587929
Xylenes, Total	0.316	J	0.316	1.50	1	12/07/2020 16:37	WG1587929
cis-1,2-Dichloroethene	0.0933	J	0.0933	0.500	1	12/07/2020 16:37	WG1587929
cis-1,3-Dichloropropene	0.0976	J	0.0976	0.500	1	12/07/2020 16:37	WG1587929
trans-1,2-Dichloroethene	0.152	J	0.152	0.500	1	12/07/2020 16:37	WG1587929
trans-1,3-Dichloropropene	0.222	J	0.222	0.500	1	12/07/2020 16:37	WG1587929
trans-1,4-Dichloro-2-butene	0.257	J	0.257	5.00	1	12/07/2020 16:37	WG1587929
(S) 4-Bromofluorobenzene	108			77.0-126		12/07/2020 16:37	WG1587929
(S) Toluene-d8	112			80.0-120		12/07/2020 16:37	WG1587929
(S) 1,2-Dichloroethane-d4	93.3			70.0-130		12/07/2020 16:37	WG1587929

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	<u>U</u>	0.00430	0.0200	1	12/05/2020 14:39	WG1586694
Ethylene Dibromide	0.00240	<u>U</u>	0.00240	0.0100	1	12/05/2020 14:39	WG1586694

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
pH (On Site)	7.7	su
Temperature (on-site)	21.5	Deg. C
Specific Conductance (on site)	348	umhos/cm
Dissolved Oxygen (on-site)	.1	mg/l
Turbidity (on-site)	5.31	NTU
eH/ORP (On Site)	173	mV

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte	mg/l		mg/l	mg/l			
Chloride	21.5		0.0519	1.00	1	12/15/2020 20:20	WG1592019

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte	mg/l		mg/l	mg/l			
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/17/2020 00:22	WG1593074

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte	mg/l		mg/l	mg/l			
Sodium, Total Recoverable	9.92		0.0111	1.00	1	12/15/2020 20:20	WG1591856



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
pH (On Site)	7.74	su
Temperature (on-site)	21.9	Deg. C
Specific Conductance (on site)	325	umhos/cm
Dissolved Oxygen (on-site)	2.3	mg/l
Turbidity (on-site)	7.95	NTU
eH/ORP (On Site)	116	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	201		2.82	10.0	1	12/08/2020 17:42	WG1588504

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	12.9		0.0519	1.00	1	12/04/2020 01:55	WG1586096
Nitrate as (N)	10.7		0.114	0.500	5	12/04/2020 02:08	WG1586096

Wet Chemistry by Method 350.1

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>J U</u>	0.0317	0.100	1	12/15/2020 20:40	WG1591824

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	0.0490	<u>U</u>	0.0490	0.200	1	12/18/2020 11:43	WG1589920

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium, Total Recoverable	11.0		0.0111	1.00	1	12/15/2020 20:23	WG1591856

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/15/2020 20:23	WG1591856
Barium, Total Recoverable	21.2		1.70	5.00	1	12/15/2020 20:23	WG1591856
Cadmium, Total Recoverable	0.961	<u>I</u>	0.700	2.00	1	12/15/2020 20:23	WG1591856
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/15/2020 20:23	WG1591856
Chromium, Total Recoverable	3.76	<u>I</u>	1.40	10.0	1	12/15/2020 20:23	WG1591856
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/15/2020 20:23	WG1591856
Iron, Total Recoverable	369		14.1	100	1	12/15/2020 20:23	WG1591856
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/15/2020 20:23	WG1591856
Lead, Total Recoverable	1.90	<u>U</u>	1.90	5.00	1	12/15/2020 20:23	WG1591856
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/15/2020 20:23	WG1591856
Vanadium, Total Recoverable	3.92	<u>I</u>	2.40	20.0	1	12/15/2020 20:23	WG1591856
Zinc, Total Recoverable	5.90	<u>U</u>	5.90	50.0	1	12/15/2020 20:23	WG1591856



Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	1.43	1	0.250	2.00	1	12/14/2020 14:56	WG1589019
Beryllium, Total Recoverable	0.120	1	0.120	2.00	1	12/14/2020 14:56	WG1589019
Antimony, Total Recoverable	0.754	1	0.754	2.00	1	12/14/2020 14:56	WG1589019
Thallium, Total Recoverable	0.343	1	0.190	2.00	1	12/14/2020 14:56	WG1589019

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	1	0.120	0.500	1	12/07/2020 16:56	WG1587929
1,1,1-Trichloroethane	0.0940	1	0.0940	0.500	1	12/07/2020 16:56	WG1587929
1,1,2,2-Tetrachloroethane	0.130	1	0.130	0.500	1	12/07/2020 16:56	WG1587929
1,1,2-Trichloroethane	0.0940	1	0.0940	0.500	1	12/07/2020 16:56	WG1587929
1,1-Dichloroethane	0.114	1	0.114	0.500	1	12/07/2020 16:56	WG1587929
1,1-Dichloroethene	0.188	1	0.188	0.500	1	12/07/2020 16:56	WG1587929
1,2,3-Trichloropropane	0.247	1	0.247	2.50	1	12/07/2020 16:56	WG1587929
1,2-Dichlorobenzene	0.101	1	0.101	0.500	1	12/07/2020 16:56	WG1587929
1,2-Dichloroethane	0.108	1	0.108	0.500	1	12/07/2020 16:56	WG1587929
1,2-Dichloropropane	0.190	1	0.190	0.500	1	12/07/2020 16:56	WG1587929
1,4-Dichlorobenzene	0.121	1	0.121	0.500	1	12/07/2020 16:56	WG1587929
2-Butanone (MEK)	1.28	1	1.28	5.00	1	12/07/2020 16:56	WG1587929
2-Hexanone	0.757	1	0.757	5.00	1	12/07/2020 16:56	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	1	0.823	5.00	1	12/07/2020 16:56	WG1587929
Acetone	1.05	1	1.05	25.0	1	12/07/2020 16:56	WG1587929
Acrylonitrile	0.873	1	0.873	5.00	1	12/07/2020 16:56	WG1587929
Benzene	0.0896	1	0.0896	0.500	1	12/07/2020 16:56	WG1587929
Bromochloromethane	0.145	1	0.145	0.500	1	12/07/2020 16:56	WG1587929
Bromodichloromethane	0.0800	1	0.0800	0.500	1	12/07/2020 16:56	WG1587929
Bromoform	0.186	1	0.186	0.500	1	12/07/2020 16:56	WG1587929
Bromomethane	0.157	1	0.157	2.50	1	12/07/2020 16:56	WG1587929
Carbon disulfide	0.101	1	0.101	0.500	1	12/07/2020 16:56	WG1587929
Carbon tetrachloride	0.159	1	0.159	0.500	1	12/07/2020 16:56	WG1587929
Chlorobenzene	0.140	1	0.140	0.500	1	12/07/2020 16:56	WG1587929
Chloroethane	0.141	1	0.141	2.50	1	12/07/2020 16:56	WG1587929
Chloroform	0.0860	1	0.0860	0.500	1	12/07/2020 16:56	WG1587929
Chloromethane	0.153	1	0.153	1.25	1	12/07/2020 16:56	WG1587929
Dibromochloromethane	0.128	1	0.128	0.500	1	12/07/2020 16:56	WG1587929
Dibromomethane	0.117	1	0.117	0.500	1	12/07/2020 16:56	WG1587929
Ethylbenzene	0.158	1	0.158	0.500	1	12/07/2020 16:56	WG1587929
Iodomethane	0.377	1	0.377	10.0	1	12/07/2020 16:56	WG1587929
Methylene Chloride	1.07	1	1.07	2.50	1	12/07/2020 16:56	WG1587929
Styrene	0.117	1	0.117	0.500	1	12/07/2020 16:56	WG1587929
Tetrachloroethene	0.199	1	0.199	0.500	1	12/07/2020 16:56	WG1587929
Toluene	0.412	1	0.412	0.500	1	12/07/2020 16:56	WG1587929
Trichloroethene	0.153	1	0.153	0.500	1	12/07/2020 16:56	WG1587929
Trichlorofluoromethane	0.130	1	0.130	2.50	1	12/07/2020 16:56	WG1587929
Vinyl acetate	0.645	1	0.645	5.00	1	12/07/2020 16:56	WG1587929
Vinyl chloride	0.118	1	0.118	0.500	1	12/07/2020 16:56	WG1587929
Xylenes, Total	0.316	1	0.316	1.50	1	12/07/2020 16:56	WG1587929
cis-1,2-Dichloroethene	0.0933	1	0.0933	0.500	1	12/07/2020 16:56	WG1587929
cis-1,3-Dichloropropene	0.0976	1	0.0976	0.500	1	12/07/2020 16:56	WG1587929
trans-1,2-Dichloroethene	0.152	1	0.152	0.500	1	12/07/2020 16:56	WG1587929
trans-1,3-Dichloropropene	0.222	1	0.222	0.500	1	12/07/2020 16:56	WG1587929
trans-1,4-Dichloro-2-butene	0.257	1	0.257	5.00	1	12/07/2020 16:56	WG1587929
(S) 4-Bromofluorobenzene	111			77.0-126		12/07/2020 16:56	WG1587929
(S) Toluene-d8	110			80.0-120		12/07/2020 16:56	WG1587929
(S) 1,2-Dichloroethane-d4	95.6			70.0-130		12/07/2020 16:56	WG1587929





EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200	1	12/05/2020 14:51	WG1586694
Ethylene Dibromide	0.00240	U	0.00240	0.0100	1	12/05/2020 14:51	WG1586694

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
pH (On Site)	7.85	su
Temperature (on-site)	21.3	Deg. C
Specific Conductance (on site)	278	umhos/cm
Dissolved Oxygen (on-site)	.2	mg/l
Turbidity (on-site)	4.4	NTU
eH/ORP (On Site)	-80	mV

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	7.02		0.0519	1.00	1	12/15/2020 21:12	WG1592019

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/15/2020 20:45	WG1591824

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sodium,Total Recoverable	5.71		0.0111	1.00	1	12/15/2020 20:31	WG1591856



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
pH (On Site)	5.67	su
Temperature (on-site)	23.4	Deg. C
Specific Conductance (on site)	85	umhos/cm
Dissolved Oxygen (on-site)	1.8	mg/l
Turbidity (on-site)	6.28	NTU
eH/ORP (On Site)	192	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	37.0		2.82	10.0	1	12/08/2020 17:42	WG1588504

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	3.88		0.0519	1.00	1	12/04/2020 04:18	WG1586096
Nitrate as (N)	1.37		0.0227	0.100	1	12/04/2020 04:18	WG1586096

Wet Chemistry by Method 350.1

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/15/2020 20:48	WG1591824

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	0.0490	<u>U</u>	0.0490	0.200	1	12/18/2020 11:44	WG1589920

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium, Total Recoverable	4.24		0.0111	1.00	1	12/15/2020 20:34	WG1591856

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/15/2020 20:34	WG1591856
Barium, Total Recoverable	10.2		1.70	5.00	1	12/15/2020 20:34	WG1591856
Cadmium, Total Recoverable	0.700	<u>U</u>	0.700	2.00	1	12/15/2020 20:34	WG1591856
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/15/2020 20:34	WG1591856
Chromium, Total Recoverable	1.87	<u>I</u>	1.40	10.0	1	12/15/2020 20:34	WG1591856
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/15/2020 20:34	WG1591856
Iron, Total Recoverable	170		14.1	100	1	12/15/2020 20:34	WG1591856
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/15/2020 20:34	WG1591856
Lead, Total Recoverable	1.90	<u>U</u>	1.90	5.00	1	12/15/2020 20:34	WG1591856
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/15/2020 20:34	WG1591856
Vanadium, Total Recoverable	2.71	<u>I</u>	2.40	20.0	1	12/15/2020 20:34	WG1591856
Zinc, Total Recoverable	5.90	<u>U</u>	5.90	50.0	1	12/15/2020 20:34	WG1591856



Collected date/time: 12/02/20 12:04

L1291962

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	0.279	1	0.250	2.00	1	12/14/2020 15:13	WG1589019
Beryllium, Total Recoverable	0.120	1	0.120	2.00	1	12/14/2020 15:13	WG1589019
Antimony, Total Recoverable	0.902	1	0.754	2.00	1	12/14/2020 15:13	WG1589019
Thallium, Total Recoverable	0.190	1	0.190	2.00	1	12/14/2020 15:13	WG1589019

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	1	0.120	0.500	1	12/07/2020 17:15	WG1587929
1,1,1-Trichloroethane	0.0940	1	0.0940	0.500	1	12/07/2020 17:15	WG1587929
1,1,2,2-Tetrachloroethane	0.130	1	0.130	0.500	1	12/07/2020 17:15	WG1587929
1,1,2-Trichloroethane	0.0940	1	0.0940	0.500	1	12/07/2020 17:15	WG1587929
1,1-Dichloroethane	0.114	1	0.114	0.500	1	12/07/2020 17:15	WG1587929
1,1-Dichloroethene	0.188	1	0.188	0.500	1	12/07/2020 17:15	WG1587929
1,2,3-Trichloropropane	0.247	1	0.247	2.50	1	12/07/2020 17:15	WG1587929
1,2-Dichlorobenzene	0.101	1	0.101	0.500	1	12/07/2020 17:15	WG1587929
1,2-Dichloroethane	0.108	1	0.108	0.500	1	12/07/2020 17:15	WG1587929
1,2-Dichloropropane	0.190	1	0.190	0.500	1	12/07/2020 17:15	WG1587929
1,4-Dichlorobenzene	0.121	1	0.121	0.500	1	12/07/2020 17:15	WG1587929
2-Butanone (MEK)	1.28	1	1.28	5.00	1	12/07/2020 17:15	WG1587929
2-Hexanone	0.757	1	0.757	5.00	1	12/07/2020 17:15	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	1	0.823	5.00	1	12/07/2020 17:15	WG1587929
Acetone	1.05	1	1.05	25.0	1	12/07/2020 17:15	WG1587929
Acrylonitrile	0.873	1	0.873	5.00	1	12/07/2020 17:15	WG1587929
Benzene	0.0896	1	0.0896	0.500	1	12/07/2020 17:15	WG1587929
Bromochloromethane	0.145	1	0.145	0.500	1	12/07/2020 17:15	WG1587929
Bromodichloromethane	0.0800	1	0.0800	0.500	1	12/07/2020 17:15	WG1587929
Bromoform	0.186	1	0.186	0.500	1	12/07/2020 17:15	WG1587929
Bromomethane	0.157	1	0.157	2.50	1	12/07/2020 17:15	WG1587929
Carbon disulfide	0.101	1	0.101	0.500	1	12/07/2020 17:15	WG1587929
Carbon tetrachloride	0.159	1	0.159	0.500	1	12/07/2020 17:15	WG1587929
Chlorobenzene	0.140	1	0.140	0.500	1	12/07/2020 17:15	WG1587929
Chloroethane	0.141	1	0.141	2.50	1	12/07/2020 17:15	WG1587929
Chloroform	0.0860	1	0.0860	0.500	1	12/07/2020 17:15	WG1587929
Chloromethane	0.153	1	0.153	1.25	1	12/07/2020 17:15	WG1587929
Dibromochloromethane	0.128	1	0.128	0.500	1	12/07/2020 17:15	WG1587929
Dibromomethane	0.117	1	0.117	0.500	1	12/07/2020 17:15	WG1587929
Ethylbenzene	0.158	1	0.158	0.500	1	12/07/2020 17:15	WG1587929
Iodomethane	0.377	1	0.377	10.0	1	12/07/2020 17:15	WG1587929
Methylene Chloride	1.07	1	1.07	2.50	1	12/07/2020 17:15	WG1587929
Styrene	0.117	1	0.117	0.500	1	12/07/2020 17:15	WG1587929
Tetrachloroethene	0.199	1	0.199	0.500	1	12/07/2020 17:15	WG1587929
Toluene	0.412	1	0.412	0.500	1	12/07/2020 17:15	WG1587929
Trichloroethene	0.153	1	0.153	0.500	1	12/07/2020 17:15	WG1587929
Trichlorofluoromethane	0.130	1	0.130	2.50	1	12/07/2020 17:15	WG1587929
Vinyl acetate	0.645	1	0.645	5.00	1	12/07/2020 17:15	WG1587929
Vinyl chloride	0.118	1	0.118	0.500	1	12/07/2020 17:15	WG1587929
Xylenes, Total	0.316	1	0.316	1.50	1	12/07/2020 17:15	WG1587929
cis-1,2-Dichloroethene	0.0933	1	0.0933	0.500	1	12/07/2020 17:15	WG1587929
cis-1,3-Dichloropropene	0.0976	1	0.0976	0.500	1	12/07/2020 17:15	WG1587929
trans-1,2-Dichloroethene	0.152	1	0.152	0.500	1	12/07/2020 17:15	WG1587929
trans-1,3-Dichloropropene	0.222	1	0.222	0.500	1	12/07/2020 17:15	WG1587929
trans-1,4-Dichloro-2-butene	0.257	1	0.257	5.00	1	12/07/2020 17:15	WG1587929
(S) 4-Bromofluorobenzene	110			77.0-126		12/07/2020 17:15	WG1587929
(S) Toluene-d8	110			80.0-120		12/07/2020 17:15	WG1587929
(S) 1,2-Dichloroethane-d4	94.8			70.0-130		12/07/2020 17:15	WG1587929

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc



Collected date/time: 12/02/20 12:04

L1291962

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200	1	12/05/2020 15:05	WG1586694
Ethylene Dibromide	0.00240	U	0.00240	0.0100	1	12/05/2020 15:05	WG1586694

- 1Cp
- 2Tc
- 3Ss
- 4Cn
- 5Sr
- 6Qc
- 7Gl
- 8Al
- 9Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	SP	
pH (On Site)	7.77	su
Temperature (on-site)	24.1	Deg. C
Specific Conductance (on site)	154	umhos/cm
Dissolved Oxygen (on-site)	.1	mg/l
Turbidity (on-site)	3.16	NTU
eH/ORP (On Site)	142	mV

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	6.45		0.0519	1.00	1	12/15/2020 21:29	WG1592019

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/15/2020 20:50	WG1591824

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sodium, Total Recoverable	5.70		0.0111	1.00	1	12/15/2020 20:37	WG1591856



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
pH (On Site)	5.29	su
Temperature (on-site)	22	Deg. C
Specific Conductance (on site)	90	umhos/cm
Dissolved Oxygen (on-site)	3.2	mg/l
Turbidity (on-site)	4.49	NTU
eH/ORP (On Site)	192	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	38.0		2.82	10.0	1	12/08/2020 17:42	WG1588504

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Chloride	8.11		0.0519	1.00	1	12/04/2020 01:42	WG1586096
Nitrate as (N)	1.03		0.0227	0.100	1	12/04/2020 01:42	WG1586096

Wet Chemistry by Method 350.1

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/15/2020 21:08	WG1591824

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	0.0646	<u>I</u>	0.0490	0.200	1	12/18/2020 11:46	WG1589920

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Sodium, Total Recoverable	4.63		0.0111	1.00	1	12/15/2020 20:40	WG1591856

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/15/2020 20:40	WG1591856
Barium, Total Recoverable	5.87		1.70	5.00	1	12/15/2020 20:40	WG1591856
Cadmium, Total Recoverable	0.700	<u>U</u>	0.700	2.00	1	12/15/2020 20:40	WG1591856
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/15/2020 20:40	WG1591856
Chromium, Total Recoverable	1.40	<u>U</u>	1.40	10.0	1	12/15/2020 20:40	WG1591856
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/15/2020 20:40	WG1591856
Iron, Total Recoverable	37.8	<u>I</u>	14.1	100	1	12/15/2020 20:40	WG1591856
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/15/2020 20:40	WG1591856
Lead, Total Recoverable	1.90	<u>U</u>	1.90	5.00	1	12/15/2020 20:40	WG1591856
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/15/2020 20:40	WG1591856
Vanadium, Total Recoverable	2.40	<u>U</u>	2.40	20.0	1	12/15/2020 20:40	WG1591856
Zinc, Total Recoverable	5.90	<u>U</u>	5.90	50.0	1	12/15/2020 20:40	WG1591856



Collected date/time: 12/02/20 08:16

L1291962

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	0.250	CC	0.250	2.00	1	12/14/2020 15:16	WG1589019
Beryllium, Total Recoverable	0.120	CC	0.120	2.00	1	12/14/2020 15:16	WG1589019
Antimony, Total Recoverable	0.754	CC	0.754	2.00	1	12/14/2020 15:16	WG1589019
Thallium, Total Recoverable	0.190	CC	0.190	2.00	1	12/14/2020 15:16	WG1589019

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	CC	0.120	0.500	1	12/07/2020 17:34	WG1587929
1,1,1-Trichloroethane	0.0940	CC	0.0940	0.500	1	12/07/2020 17:34	WG1587929
1,1,2,2-Tetrachloroethane	0.130	CC	0.130	0.500	1	12/07/2020 17:34	WG1587929
1,1,2-Trichloroethane	0.0940	CC	0.0940	0.500	1	12/07/2020 17:34	WG1587929
1,1-Dichloroethane	0.114	CC	0.114	0.500	1	12/07/2020 17:34	WG1587929
1,1-Dichloroethene	0.188	CC	0.188	0.500	1	12/07/2020 17:34	WG1587929
1,2,3-Trichloropropane	0.247	CC	0.247	2.50	1	12/07/2020 17:34	WG1587929
1,2-Dichlorobenzene	0.101	CC	0.101	0.500	1	12/07/2020 17:34	WG1587929
1,2-Dichloroethane	0.108	CC	0.108	0.500	1	12/07/2020 17:34	WG1587929
1,2-Dichloropropane	0.190	CC	0.190	0.500	1	12/07/2020 17:34	WG1587929
1,4-Dichlorobenzene	0.121	CC	0.121	0.500	1	12/07/2020 17:34	WG1587929
2-Butanone (MEK)	1.28	CC	1.28	5.00	1	12/07/2020 17:34	WG1587929
2-Hexanone	0.757	CC	0.757	5.00	1	12/07/2020 17:34	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	CC	0.823	5.00	1	12/07/2020 17:34	WG1587929
Acetone	1.05	CC	1.05	25.0	1	12/07/2020 17:34	WG1587929
Acrylonitrile	0.873	CC	0.873	5.00	1	12/07/2020 17:34	WG1587929
Benzene	0.0896	CC	0.0896	0.500	1	12/07/2020 17:34	WG1587929
Bromochloromethane	0.145	CC	0.145	0.500	1	12/07/2020 17:34	WG1587929
Bromodichloromethane	0.0800	CC	0.0800	0.500	1	12/07/2020 17:34	WG1587929
Bromoform	0.186	CC	0.186	0.500	1	12/07/2020 17:34	WG1587929
Bromomethane	0.157	CC	0.157	2.50	1	12/07/2020 17:34	WG1587929
Carbon disulfide	0.101	CC	0.101	0.500	1	12/07/2020 17:34	WG1587929
Carbon tetrachloride	0.159	CC	0.159	0.500	1	12/07/2020 17:34	WG1587929
Chlorobenzene	0.140	CC	0.140	0.500	1	12/07/2020 17:34	WG1587929
Chloroethane	0.141	CC	0.141	2.50	1	12/07/2020 17:34	WG1587929
Chloroform	0.0860	CC	0.0860	0.500	1	12/07/2020 17:34	WG1587929
Chloromethane	0.153	CC	0.153	1.25	1	12/07/2020 17:34	WG1587929
Dibromochloromethane	0.128	CC	0.128	0.500	1	12/07/2020 17:34	WG1587929
Dibromomethane	0.117	CC	0.117	0.500	1	12/07/2020 17:34	WG1587929
Ethylbenzene	0.158	CC	0.158	0.500	1	12/07/2020 17:34	WG1587929
Iodomethane	0.377	CC	0.377	10.0	1	12/07/2020 17:34	WG1587929
Methylene Chloride	1.07	CC	1.07	2.50	1	12/07/2020 17:34	WG1587929
Styrene	0.117	CC	0.117	0.500	1	12/07/2020 17:34	WG1587929
Tetrachloroethene	0.199	CC	0.199	0.500	1	12/07/2020 17:34	WG1587929
Toluene	0.412	CC	0.412	0.500	1	12/07/2020 17:34	WG1587929
Trichloroethene	0.153	CC	0.153	0.500	1	12/07/2020 17:34	WG1587929
Trichlorofluoromethane	0.130	CC	0.130	2.50	1	12/07/2020 17:34	WG1587929
Vinyl acetate	0.645	CC	0.645	5.00	1	12/07/2020 17:34	WG1587929
Vinyl chloride	0.118	CC	0.118	0.500	1	12/07/2020 17:34	WG1587929
Xylenes, Total	0.316	CC	0.316	1.50	1	12/07/2020 17:34	WG1587929
cis-1,2-Dichloroethene	0.0933	CC	0.0933	0.500	1	12/07/2020 17:34	WG1587929
cis-1,3-Dichloropropene	0.0976	CC	0.0976	0.500	1	12/07/2020 17:34	WG1587929
trans-1,2-Dichloroethene	0.152	CC	0.152	0.500	1	12/07/2020 17:34	WG1587929
trans-1,3-Dichloropropene	0.222	CC	0.222	0.500	1	12/07/2020 17:34	WG1587929
trans-1,4-Dichloro-2-butene	0.257	CC	0.257	5.00	1	12/07/2020 17:34	WG1587929
(S) 4-Bromofluorobenzene	107			77.0-126		12/07/2020 17:34	WG1587929
(S) Toluene-d8	111			80.0-120		12/07/2020 17:34	WG1587929
(S) 1,2-Dichloroethane-d4	92.6			70.0-130		12/07/2020 17:34	WG1587929





EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200	1	12/05/2020 15:18	WG1586694
Ethylene Dibromide	0.00240	U	0.00240	0.0100	1	12/05/2020 15:18	WG1586694

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
pH (On Site)	6.77	su
Temperature (on-site)	21.8	Deg. C
Specific Conductance (on site)	146	umhos/cm
Dissolved Oxygen (on-site)	2.1	mg/l
Turbidity (on-site)	8.09	NTU
eH/ORP (On Site)	160	mV

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	10.6		0.0519	1.00	1	12/15/2020 21:47	WG1592019

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/15/2020 21:10	WG1591824

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sodium, Total Recoverable	4.96		0.0111	1.00	1	12/15/2020 20:43	WG1591856

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Collected date/time: 12/02/20 13:55

SAMPLE RESULTS - 11

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Additional Information

	Result	Units
Analyte		
pH (On Site)	6.88	su
Temperature (on-site)	23.3	Deg. C
Specific Conductance (on site)	7	umhos/cm
Dissolved Oxygen (on-site)	.8	mg/l
Turbidity (on-site)	0	NTU
eH/ORP (On Site)	27	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Dissolved Solids	2.82	<u>U</u>	2.82	10.0	1	12/08/2020 17:42	WG1588504

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Chloride	0.148	<u>I</u>	0.0519	1.00	1	12/04/2020 04:31	WG1586096
Nitrate as (N)	0.0272	<u>I</u>	0.0227	0.100	1	12/04/2020 04:31	WG1586096

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/15/2020 21:12	WG1591824

Mercury by Method 7470A

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Mercury	0.0490	<u>U</u>	0.0490	0.200	1	12/18/2020 11:48	WG1589920

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Sodium, Total Recoverable	0.146	<u>I V</u>	0.0111	1.00	1	12/15/2020 20:45	WG1591856

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/15/2020 20:45	WG1591856
Barium, Total Recoverable	1.70	<u>U</u>	1.70	5.00	1	12/15/2020 20:45	WG1591856
Cadmium, Total Recoverable	0.700	<u>U</u>	0.700	2.00	1	12/15/2020 20:45	WG1591856
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/15/2020 20:45	WG1591856
Chromium, Total Recoverable	1.40	<u>U</u>	1.40	10.0	1	12/15/2020 20:45	WG1591856
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/15/2020 20:45	WG1591856
Iron, Total Recoverable	14.1	<u>U</u>	14.1	100	1	12/15/2020 20:45	WG1591856
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/15/2020 20:45	WG1591856
Lead, Total Recoverable	1.90	<u>U</u>	1.90	5.00	1	12/15/2020 20:45	WG1591856
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/15/2020 20:45	WG1591856
Vanadium, Total Recoverable	2.40	<u>U</u>	2.40	20.0	1	12/15/2020 20:45	WG1591856
Zinc, Total Recoverable	5.90	<u>U</u>	5.90	50.0	1	12/15/2020 20:45	WG1591856

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PAGE:

32 of 133



Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	0.250	U	0.250	2.00	1	12/14/2020 15:20	WG1589019
Beryllium, Total Recoverable	0.120	U	0.120	2.00	1	12/14/2020 15:20	WG1589019
Antimony, Total Recoverable	0.754	U	0.754	2.00	1	12/14/2020 15:20	WG1589019
Thallium, Total Recoverable	0.190	U	0.190	2.00	1	12/14/2020 15:20	WG1589019

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200	1	12/05/2020 15:31	WG1586694
Ethylene Dibromide	0.00240	U	0.00240	0.0100	1	12/05/2020 15:31	WG1586694

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Additional Information

Analyte	Result	Units
Sampling Method	Z	

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	C	0.120	0.500	1	12/07/2020 15:01	WG1587929
1,1,1-Trichloroethane	0.0940	C	0.0940	0.500	1	12/07/2020 15:01	WG1587929
1,1,2,2-Tetrachloroethane	0.130	C	0.130	0.500	1	12/07/2020 15:01	WG1587929
1,1,2-Trichloroethane	0.0940	C	0.0940	0.500	1	12/07/2020 15:01	WG1587929
1,1-Dichloroethane	0.114	C	0.114	0.500	1	12/07/2020 15:01	WG1587929
1,1-Dichloroethene	0.188	C	0.188	0.500	1	12/07/2020 15:01	WG1587929
1,2,3-Trichloropropane	0.247	C	0.247	2.50	1	12/07/2020 15:01	WG1587929
1,2-Dichlorobenzene	0.101	C	0.101	0.500	1	12/07/2020 15:01	WG1587929
1,2-Dichloroethane	0.108	C	0.108	0.500	1	12/07/2020 15:01	WG1587929
1,2-Dichloropropane	0.190	C	0.190	0.500	1	12/07/2020 15:01	WG1587929
1,4-Dichlorobenzene	0.121	C	0.121	0.500	1	12/07/2020 15:01	WG1587929
2-Butanone (MEK)	1.28	C	1.28	5.00	1	12/07/2020 15:01	WG1587929
2-Hexanone	0.757	C	0.757	5.00	1	12/07/2020 15:01	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	C	0.823	5.00	1	12/07/2020 15:01	WG1587929
Acetone	1.05	C	1.05	25.0	1	12/07/2020 15:01	WG1587929
Acrylonitrile	0.873	C	0.873	5.00	1	12/07/2020 15:01	WG1587929
Benzene	0.0896	C	0.0896	0.500	1	12/07/2020 15:01	WG1587929
Bromochloromethane	0.145	C	0.145	0.500	1	12/07/2020 15:01	WG1587929
Bromodichloromethane	0.0800	C	0.0800	0.500	1	12/07/2020 15:01	WG1587929
Bromoform	0.186	C	0.186	0.500	1	12/07/2020 15:01	WG1587929
Bromomethane	0.157	C	0.157	2.50	1	12/07/2020 15:01	WG1587929
Carbon disulfide	0.193	C	0.101	0.500	1	12/07/2020 15:01	WG1587929
Carbon tetrachloride	0.159	C	0.159	0.500	1	12/07/2020 15:01	WG1587929
Chlorobenzene	0.140	C	0.140	0.500	1	12/07/2020 15:01	WG1587929
Chloroethane	0.141	C	0.141	2.50	1	12/07/2020 15:01	WG1587929
Chloroform	0.0860	C	0.0860	0.500	1	12/07/2020 15:01	WG1587929
Chloromethane	0.153	C	0.153	1.25	1	12/07/2020 15:01	WG1587929
Dibromochloromethane	0.128	C	0.128	0.500	1	12/07/2020 15:01	WG1587929
Dibromomethane	0.117	C	0.117	0.500	1	12/07/2020 15:01	WG1587929
Ethylbenzene	0.158	C	0.158	0.500	1	12/07/2020 15:01	WG1587929
Iodomethane	0.377	C	0.377	10.0	1	12/07/2020 15:01	WG1587929
Methylene Chloride	1.07	C	1.07	2.50	1	12/07/2020 15:01	WG1587929
Styrene	0.117	C	0.117	0.500	1	12/07/2020 15:01	WG1587929
Tetrachloroethene	0.199	C	0.199	0.500	1	12/07/2020 15:01	WG1587929
Toluene	0.412	C	0.412	0.500	1	12/07/2020 15:01	WG1587929
Trichloroethene	0.153	C	0.153	0.500	1	12/07/2020 15:01	WG1587929
Trichlorofluoromethane	0.130	C	0.130	2.50	1	12/07/2020 15:01	WG1587929
Vinyl acetate	0.645	C	0.645	5.00	1	12/07/2020 15:01	WG1587929
Vinyl chloride	0.118	C	0.118	0.500	1	12/07/2020 15:01	WG1587929
Xylenes, Total	0.316	C	0.316	1.50	1	12/07/2020 15:01	WG1587929
cis-1,2-Dichloroethene	0.0933	C	0.0933	0.500	1	12/07/2020 15:01	WG1587929
cis-1,3-Dichloropropene	0.0976	C	0.0976	0.500	1	12/07/2020 15:01	WG1587929
trans-1,2-Dichloroethene	0.152	C	0.152	0.500	1	12/07/2020 15:01	WG1587929
trans-1,3-Dichloropropene	0.222	C	0.222	0.500	1	12/07/2020 15:01	WG1587929
trans-1,4-Dichloro-2-butene	0.257	C	0.257	5.00	1	12/07/2020 15:01	WG1587929
(S) 4-Bromofluorobenzene	107			77.0-126		12/07/2020 15:01	WG1587929
(S) Toluene-d8	113			80.0-120		12/07/2020 15:01	WG1587929
(S) 1,2-Dichloroethane-d4	93.8			70.0-130		12/07/2020 15:01	WG1587929

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	70.58	ft
pH (On Site)	7.42	su
Temperature (on-site)	26	Deg. C
Specific Conductance (on site)	448	umhos/cm
Dissolved Oxygen (on-site)	.5	mg/l
Turbidity (on-site)	3.91	NTU
eH/ORP (On Site)	87	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Dissolved Solids	303		2.82	10.0	1	12/09/2020 06:00	WG1588744

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Chloride	18.4		0.0519	1.00	1	12/04/2020 18:09	WG1586712
Nitrate as (N)	8.25		0.0227	0.100	1	12/04/2020 18:09	WG1586712

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/18/2020 15:51	WG1593099

Mercury by Method 7470A

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Mercury	0.0490	<u>U</u>	0.0490	0.200	1	12/16/2020 10:22	WG1589921

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Sodium, Total Recoverable	8.61		0.0111	1.00	1	12/16/2020 17:53	WG1592095

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/16/2020 17:53	WG1592095
Barium, Total Recoverable	32.1		1.70	5.00	1	12/16/2020 17:53	WG1592095
Cadmium, Total Recoverable	0.700	<u>U</u>	0.700	2.00	1	12/16/2020 17:53	WG1592095
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/16/2020 17:53	WG1592095
Chromium, Total Recoverable	1.40	<u>U</u>	1.40	10.0	1	12/16/2020 17:53	WG1592095
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/16/2020 17:53	WG1592095
Iron, Total Recoverable	58.7	<u>I</u>	14.1	100	1	12/16/2020 17:53	WG1592095
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/16/2020 17:53	WG1592095
Lead, Total Recoverable	1.90	<u>U</u>	1.90	5.00	1	12/16/2020 17:53	WG1592095
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/16/2020 17:53	WG1592095
Vanadium, Total Recoverable	2.40	<u>U</u>	2.40	20.0	1	12/16/2020 17:53	WG1592095
Zinc, Total Recoverable	5.90	<u>U</u>	5.90	50.0	1	12/16/2020 17:53	WG1592095



Collected date/time: 12/03/20 11:33

L1291962

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	0.250	U	0.250	2.00	1	12/17/2020 00:59	WG1593139
Beryllium, Total Recoverable	0.120	U	0.120	2.00	1	12/17/2020 00:59	WG1593139
Antimony, Total Recoverable	0.843	U	0.754	2.00	1	12/17/2020 00:59	WG1593139
Thallium, Total Recoverable	0.190	U	0.190	2.00	1	12/17/2020 00:59	WG1593139

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	U	0.120	0.500	1	12/07/2020 17:53	WG1587929
1,1,1-Trichloroethane	0.0940	U	0.0940	0.500	1	12/07/2020 17:53	WG1587929
1,1,2,2-Tetrachloroethane	0.130	U	0.130	0.500	1	12/07/2020 17:53	WG1587929
1,1,2-Trichloroethane	0.0940	U	0.0940	0.500	1	12/07/2020 17:53	WG1587929
1,1-Dichloroethane	0.114	U	0.114	0.500	1	12/07/2020 17:53	WG1587929
1,1-Dichloroethene	0.188	U	0.188	0.500	1	12/07/2020 17:53	WG1587929
1,2,3-Trichloropropane	0.247	U	0.247	2.50	1	12/07/2020 17:53	WG1587929
1,2-Dichlorobenzene	0.101	U	0.101	0.500	1	12/07/2020 17:53	WG1587929
1,2-Dichloroethane	0.108	U	0.108	0.500	1	12/07/2020 17:53	WG1587929
1,2-Dichloropropane	0.190	U	0.190	0.500	1	12/07/2020 17:53	WG1587929
1,4-Dichlorobenzene	0.121	U	0.121	0.500	1	12/07/2020 17:53	WG1587929
2-Butanone (MEK)	1.28	U	1.28	5.00	1	12/07/2020 17:53	WG1587929
2-Hexanone	0.757	U	0.757	5.00	1	12/07/2020 17:53	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	U	0.823	5.00	1	12/07/2020 17:53	WG1587929
Acetone	1.05	U	1.05	25.0	1	12/07/2020 17:53	WG1587929
Acrylonitrile	0.873	U	0.873	5.00	1	12/07/2020 17:53	WG1587929
Benzene	0.0896	U	0.0896	0.500	1	12/07/2020 17:53	WG1587929
Bromochloromethane	0.145	U	0.145	0.500	1	12/07/2020 17:53	WG1587929
Bromodichloromethane	0.0800	U	0.0800	0.500	1	12/07/2020 17:53	WG1587929
Bromoform	0.186	U	0.186	0.500	1	12/07/2020 17:53	WG1587929
Bromomethane	0.157	U	0.157	2.50	1	12/07/2020 17:53	WG1587929
Carbon disulfide	0.101	U	0.101	0.500	1	12/07/2020 17:53	WG1587929
Carbon tetrachloride	0.159	U	0.159	0.500	1	12/07/2020 17:53	WG1587929
Chlorobenzene	0.140	U	0.140	0.500	1	12/07/2020 17:53	WG1587929
Chloroethane	0.141	U	0.141	2.50	1	12/07/2020 17:53	WG1587929
Chloroform	0.302	U	0.0860	0.500	1	12/07/2020 17:53	WG1587929
Chloromethane	0.153	U	0.153	1.25	1	12/07/2020 17:53	WG1587929
Dibromochloromethane	0.128	U	0.128	0.500	1	12/07/2020 17:53	WG1587929
Dibromomethane	0.117	U	0.117	0.500	1	12/07/2020 17:53	WG1587929
Ethylbenzene	0.158	U	0.158	0.500	1	12/07/2020 17:53	WG1587929
Iodomethane	0.377	U	0.377	10.0	1	12/07/2020 17:53	WG1587929
Methylene Chloride	1.07	U	1.07	2.50	1	12/07/2020 17:53	WG1587929
Styrene	0.117	U	0.117	0.500	1	12/07/2020 17:53	WG1587929
Tetrachloroethene	0.199	U	0.199	0.500	1	12/07/2020 17:53	WG1587929
Toluene	0.412	U	0.412	0.500	1	12/07/2020 17:53	WG1587929
Trichloroethene	0.153	U	0.153	0.500	1	12/07/2020 17:53	WG1587929
Trichlorofluoromethane	0.130	U	0.130	2.50	1	12/07/2020 17:53	WG1587929
Vinyl acetate	0.645	U	0.645	5.00	1	12/07/2020 17:53	WG1587929
Vinyl chloride	0.118	U	0.118	0.500	1	12/07/2020 17:53	WG1587929
Xylenes, Total	0.316	U	0.316	1.50	1	12/07/2020 17:53	WG1587929
cis-1,2-Dichloroethene	0.0933	U	0.0933	0.500	1	12/07/2020 17:53	WG1587929
cis-1,3-Dichloropropene	0.0976	U	0.0976	0.500	1	12/07/2020 17:53	WG1587929
trans-1,2-Dichloroethene	0.152	U	0.152	0.500	1	12/07/2020 17:53	WG1587929
trans-1,3-Dichloropropene	0.222	U	0.222	0.500	1	12/07/2020 17:53	WG1587929
trans-1,4-Dichloro-2-butene	0.257	U	0.257	5.00	1	12/07/2020 17:53	WG1587929
(S) 4-Bromofluorobenzene	109			77.0-126		12/07/2020 17:53	WG1587929
(S) Toluene-d8	111			80.0-120		12/07/2020 17:53	WG1587929
(S) 1,2-Dichloroethane-d4	93.4			70.0-130		12/07/2020 17:53	WG1587929





Collected date/time: 12/03/20 11:33

L1291962

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	<u>U</u>	0.00430	0.0200	1	12/11/2020 22:05	WG1589548
Ethylene Dibromide	0.00240	<u>U</u>	0.00240	0.0100	1	12/11/2020 22:05	WG1589548

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	61.43	ft
pH (On Site)	7.63	su
Temperature (on-site)	24.1	Deg. C
Specific Conductance (on site)	227	umhos/cm
Dissolved Oxygen (on-site)	.2	mg/l
Turbidity (on-site)	2.64	NTU
eH/ORP (On Site)	108	mV

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	8.42		0.0519	1.00	1	12/17/2020 02:12	WG1593001

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/18/2020 15:56	WG1593099

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sodium,Total Recoverable	5.30		0.0111	1.00	1	12/17/2020 21:11	WG1593014



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	58.89	ft
pH (On Site)	6.01	su
Temperature (on-site)	22.5	Deg. C
Specific Conductance (on site)	97	umhos/cm
Dissolved Oxygen (on-site)	4.5	mg/l
Turbidity (on-site)	2.84	NTU
eH/ORP (On Site)	188	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Dissolved Solids	52.0		2.82	10.0	1	12/09/2020 06:00	WG1588744

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Chloride	2.00		0.0519	1.00	1	12/04/2020 18:42	WG1586712
Nitrate as (N)	0.585		0.0227	0.100	1	12/04/2020 18:42	WG1586712

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/18/2020 15:59	WG1593099

Mercury by Method 7470A

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Mercury	0.0490	<u>U</u>	0.0490	0.200	1	12/16/2020 10:28	WG1589921

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Sodium, Total Recoverable	1.20		0.0111	1.00	1	12/17/2020 21:14	WG1593014

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/17/2020 21:14	WG1593014
Barium, Total Recoverable	13.5		1.70	5.00	1	12/17/2020 21:14	WG1593014
Cadmium, Total Recoverable	0.700	<u>U</u>	0.700	2.00	1	12/17/2020 21:14	WG1593014
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/17/2020 21:14	WG1593014
Chromium, Total Recoverable	1.40	<u>U</u>	1.40	10.0	1	12/17/2020 21:14	WG1593014
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/17/2020 21:14	WG1593014
Iron, Total Recoverable	21.3	<u>I</u>	14.1	100	1	12/17/2020 21:14	WG1593014
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/17/2020 21:14	WG1593014
Lead, Total Recoverable	1.90	<u>U</u>	1.90	5.00	1	12/17/2020 21:14	WG1593014
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/17/2020 21:14	WG1593014
Vanadium, Total Recoverable	2.40	<u>U</u>	2.40	20.0	1	12/17/2020 21:14	WG1593014
Zinc, Total Recoverable	172		5.90	50.0	1	12/17/2020 21:14	WG1593014



Collected date/time: 12/03/20 08:00

L1291962

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	0.250	J	0.250	2.00	1	12/16/2020 16:39	WG1592098
Beryllium, Total Recoverable	0.120	J	0.120	2.00	1	12/16/2020 16:39	WG1592098
Antimony, Total Recoverable	0.754	J	0.754	2.00	1	12/16/2020 16:39	WG1592098
Thallium, Total Recoverable	0.202	J	0.190	2.00	1	12/16/2020 16:39	WG1592098

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	J	0.120	0.500	1	12/07/2020 18:12	WG1587929
1,1,1-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 18:12	WG1587929
1,1,2,2-Tetrachloroethane	0.130	J	0.130	0.500	1	12/07/2020 18:12	WG1587929
1,1,2-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 18:12	WG1587929
1,1-Dichloroethane	0.114	J	0.114	0.500	1	12/07/2020 18:12	WG1587929
1,1-Dichloroethene	0.188	J	0.188	0.500	1	12/07/2020 18:12	WG1587929
1,2,3-Trichloropropane	0.247	J	0.247	2.50	1	12/07/2020 18:12	WG1587929
1,2-Dichlorobenzene	0.101	J	0.101	0.500	1	12/07/2020 18:12	WG1587929
1,2-Dichloroethane	0.108	J	0.108	0.500	1	12/07/2020 18:12	WG1587929
1,2-Dichloropropane	0.190	J	0.190	0.500	1	12/07/2020 18:12	WG1587929
1,4-Dichlorobenzene	0.121	J	0.121	0.500	1	12/07/2020 18:12	WG1587929
2-Butanone (MEK)	1.28	J	1.28	5.00	1	12/07/2020 18:12	WG1587929
2-Hexanone	0.757	J	0.757	5.00	1	12/07/2020 18:12	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	J	0.823	5.00	1	12/07/2020 18:12	WG1587929
Acetone	1.05	J	1.05	25.0	1	12/07/2020 18:12	WG1587929
Acrylonitrile	0.873	J	0.873	5.00	1	12/07/2020 18:12	WG1587929
Benzene	0.0896	J	0.0896	0.500	1	12/07/2020 18:12	WG1587929
Bromochloromethane	0.145	J	0.145	0.500	1	12/07/2020 18:12	WG1587929
Bromodichloromethane	0.0800	J	0.0800	0.500	1	12/07/2020 18:12	WG1587929
Bromoform	0.186	J	0.186	0.500	1	12/07/2020 18:12	WG1587929
Bromomethane	0.157	J	0.157	2.50	1	12/07/2020 18:12	WG1587929
Carbon disulfide	0.101	J	0.101	0.500	1	12/07/2020 18:12	WG1587929
Carbon tetrachloride	0.159	J	0.159	0.500	1	12/07/2020 18:12	WG1587929
Chlorobenzene	0.140	J	0.140	0.500	1	12/07/2020 18:12	WG1587929
Chloroethane	0.141	J	0.141	2.50	1	12/07/2020 18:12	WG1587929
Chloroform	0.0860	J	0.0860	0.500	1	12/07/2020 18:12	WG1587929
Chloromethane	0.153	J	0.153	1.25	1	12/07/2020 18:12	WG1587929
Dibromochloromethane	0.128	J	0.128	0.500	1	12/07/2020 18:12	WG1587929
Dibromomethane	0.117	J	0.117	0.500	1	12/07/2020 18:12	WG1587929
Ethylbenzene	0.158	J	0.158	0.500	1	12/07/2020 18:12	WG1587929
Iodomethane	0.377	J	0.377	10.0	1	12/07/2020 18:12	WG1587929
Methylene Chloride	1.07	J	1.07	2.50	1	12/07/2020 18:12	WG1587929
Styrene	0.117	J	0.117	0.500	1	12/07/2020 18:12	WG1587929
Tetrachloroethene	0.199	J	0.199	0.500	1	12/07/2020 18:12	WG1587929
Toluene	0.412	J	0.412	0.500	1	12/07/2020 18:12	WG1587929
Trichloroethene	0.153	J	0.153	0.500	1	12/07/2020 18:12	WG1587929
Trichlorofluoromethane	0.130	J	0.130	2.50	1	12/07/2020 18:12	WG1587929
Vinyl acetate	0.645	J	0.645	5.00	1	12/07/2020 18:12	WG1587929
Vinyl chloride	0.118	J	0.118	0.500	1	12/07/2020 18:12	WG1587929
Xylenes, Total	0.316	J	0.316	1.50	1	12/07/2020 18:12	WG1587929
cis-1,2-Dichloroethene	0.0933	J	0.0933	0.500	1	12/07/2020 18:12	WG1587929
cis-1,3-Dichloropropene	0.0976	J	0.0976	0.500	1	12/07/2020 18:12	WG1587929
trans-1,2-Dichloroethene	0.152	J	0.152	0.500	1	12/07/2020 18:12	WG1587929
trans-1,3-Dichloropropene	0.222	J	0.222	0.500	1	12/07/2020 18:12	WG1587929
trans-1,4-Dichloro-2-butene	0.257	J	0.257	5.00	1	12/07/2020 18:12	WG1587929
(S) 4-Bromofluorobenzene	110			77.0-126		12/07/2020 18:12	WG1587929
(S) Toluene-d8	110			80.0-120		12/07/2020 18:12	WG1587929
(S) 1,2-Dichloroethane-d4	96.5			70.0-130		12/07/2020 18:12	WG1587929

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc



Collected date/time: 12/03/20 08:00

L1291962

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200	1	12/11/2020 21:39	WG1589548
Ethylene Dibromide	0.00240	U	0.00240	0.0100	1	12/11/2020 21:39	WG1589548

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	59.87	ft
pH (On Site)	5.41	su
Temperature (on-site)	22.5	Deg. C
Specific Conductance (on site)	71	umhos/cm
Dissolved Oxygen (on-site)	.6	mg/l
Turbidity (on-site)	4.66	NTU
eH/ORP (On Site)	189	mV

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
mg/l							
Chloride	2.74		0.0519	1.00	1	12/17/2020 02:47	WG1593001

⁶ Qc

⁷ Gl

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
mg/l							
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/18/2020 16:01	WG1593099

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
mg/l							
Sodium, Total Recoverable	1.67		0.0111	1.00	1	12/17/2020 21:00	WG1593014



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	60.38	ft
pH (On Site)	5.68	su
Temperature (on-site)	23.4	Deg. C
Specific Conductance (on site)	76	umhos/cm
Dissolved Oxygen (on-site)	3.4	mg/l
Turbidity (on-site)	3.3	NTU
eH/ORP (On Site)	205	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Dissolved Solids	24.0		2.82	10.0	1	12/09/2020 06:00	WG1588744

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Chloride	1.70		0.0519	1.00	1	12/04/2020 19:50	WG1586712
Nitrate as (N)	0.612		0.0227	0.100	1	12/04/2020 19:50	WG1586712

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/18/2020 16:03	WG1593099

Mercury by Method 7470A

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Mercury	0.0490	<u>U</u>	0.0490	0.200	1	12/16/2020 10:37	WG1589921

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Sodium, Total Recoverable	0.990	<u>I</u>	0.0111	1.00	1	12/17/2020 21:16	WG1593014

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/17/2020 21:16	WG1593014
Barium, Total Recoverable	14.5		1.70	5.00	1	12/17/2020 21:16	WG1593014
Cadmium, Total Recoverable	0.700	<u>U</u>	0.700	2.00	1	12/17/2020 21:16	WG1593014
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/17/2020 21:16	WG1593014
Chromium, Total Recoverable	1.40	<u>U</u>	1.40	10.0	1	12/17/2020 21:16	WG1593014
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/17/2020 21:16	WG1593014
Iron, Total Recoverable	214		14.1	100	1	12/17/2020 21:16	WG1593014
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/17/2020 21:16	WG1593014
Lead, Total Recoverable	1.90	<u>U</u>	1.90	5.00	1	12/17/2020 21:16	WG1593014
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/17/2020 21:16	WG1593014
Vanadium, Total Recoverable	2.40	<u>U</u>	2.40	20.0	1	12/17/2020 21:16	WG1593014
Zinc, Total Recoverable	24.8	<u>I V</u>	5.90	50.0	1	12/17/2020 21:16	WG1593014



Collected date/time: 12/03/20 09:11

L1291962

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	0.250	J	0.250	2.00	1	12/16/2020 16:42	WG1592098
Beryllium, Total Recoverable	0.120	J	0.120	2.00	1	12/16/2020 16:42	WG1592098
Antimony, Total Recoverable	0.754	J	0.754	2.00	1	12/16/2020 16:42	WG1592098
Thallium, Total Recoverable	0.190	J	0.190	2.00	1	12/16/2020 16:42	WG1592098

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	J	0.120	0.500	1	12/07/2020 18:31	WG1587929
1,1,1-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 18:31	WG1587929
1,1,2,2-Tetrachloroethane	0.130	J	0.130	0.500	1	12/07/2020 18:31	WG1587929
1,1,2-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 18:31	WG1587929
1,1-Dichloroethane	0.114	J	0.114	0.500	1	12/07/2020 18:31	WG1587929
1,1-Dichloroethene	0.188	J	0.188	0.500	1	12/07/2020 18:31	WG1587929
1,2,3-Trichloropropane	0.247	J	0.247	2.50	1	12/07/2020 18:31	WG1587929
1,2-Dichlorobenzene	0.101	J	0.101	0.500	1	12/07/2020 18:31	WG1587929
1,2-Dichloroethane	0.108	J	0.108	0.500	1	12/07/2020 18:31	WG1587929
1,2-Dichloropropane	0.190	J	0.190	0.500	1	12/07/2020 18:31	WG1587929
1,4-Dichlorobenzene	0.121	J	0.121	0.500	1	12/07/2020 18:31	WG1587929
2-Butanone (MEK)	1.28	J	1.28	5.00	1	12/07/2020 18:31	WG1587929
2-Hexanone	0.757	J	0.757	5.00	1	12/07/2020 18:31	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	J	0.823	5.00	1	12/07/2020 18:31	WG1587929
Acetone	1.05	J	1.05	25.0	1	12/07/2020 18:31	WG1587929
Acrylonitrile	0.873	J	0.873	5.00	1	12/07/2020 18:31	WG1587929
Benzene	0.0896	J	0.0896	0.500	1	12/07/2020 18:31	WG1587929
Bromochloromethane	0.145	J	0.145	0.500	1	12/07/2020 18:31	WG1587929
Bromodichloromethane	0.0800	J	0.0800	0.500	1	12/07/2020 18:31	WG1587929
Bromoform	0.186	J	0.186	0.500	1	12/07/2020 18:31	WG1587929
Bromomethane	0.157	J	0.157	2.50	1	12/07/2020 18:31	WG1587929
Carbon disulfide	0.101	J	0.101	0.500	1	12/07/2020 18:31	WG1587929
Carbon tetrachloride	0.159	J	0.159	0.500	1	12/07/2020 18:31	WG1587929
Chlorobenzene	0.140	J	0.140	0.500	1	12/07/2020 18:31	WG1587929
Chloroethane	0.141	J	0.141	2.50	1	12/07/2020 18:31	WG1587929
Chloroform	0.0860	J	0.0860	0.500	1	12/07/2020 18:31	WG1587929
Chloromethane	0.153	J	0.153	1.25	1	12/07/2020 18:31	WG1587929
Dibromochloromethane	0.128	J	0.128	0.500	1	12/07/2020 18:31	WG1587929
Dibromomethane	0.117	J	0.117	0.500	1	12/07/2020 18:31	WG1587929
Ethylbenzene	0.158	J	0.158	0.500	1	12/07/2020 18:31	WG1587929
Iodomethane	0.377	J	0.377	10.0	1	12/07/2020 18:31	WG1587929
Methylene Chloride	1.07	J	1.07	2.50	1	12/07/2020 18:31	WG1587929
Styrene	0.117	J	0.117	0.500	1	12/07/2020 18:31	WG1587929
Tetrachloroethene	0.199	J	0.199	0.500	1	12/07/2020 18:31	WG1587929
Toluene	0.412	J	0.412	0.500	1	12/07/2020 18:31	WG1587929
Trichloroethene	0.153	J	0.153	0.500	1	12/07/2020 18:31	WG1587929
Trichlorofluoromethane	0.130	J	0.130	2.50	1	12/07/2020 18:31	WG1587929
Vinyl acetate	0.645	J	0.645	5.00	1	12/07/2020 18:31	WG1587929
Vinyl chloride	0.118	J	0.118	0.500	1	12/07/2020 18:31	WG1587929
Xylenes, Total	0.316	J	0.316	1.50	1	12/07/2020 18:31	WG1587929
cis-1,2-Dichloroethene	0.0933	J	0.0933	0.500	1	12/07/2020 18:31	WG1587929
cis-1,3-Dichloropropene	0.0976	J	0.0976	0.500	1	12/07/2020 18:31	WG1587929
trans-1,2-Dichloroethene	0.152	J	0.152	0.500	1	12/07/2020 18:31	WG1587929
trans-1,3-Dichloropropene	0.222	J	0.222	0.500	1	12/07/2020 18:31	WG1587929
trans-1,4-Dichloro-2-butene	0.257	J	0.257	5.00	1	12/07/2020 18:31	WG1587929
(S) 4-Bromofluorobenzene	108			77.0-126		12/07/2020 18:31	WG1587929
(S) Toluene-d8	110			80.0-120		12/07/2020 18:31	WG1587929
(S) 1,2-Dichloroethane-d4	94.6			70.0-130		12/07/2020 18:31	WG1587929

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc



Collected date/time: 12/03/20 09:11

L1291962

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200	1	12/11/2020 22:17	WG1589548
Ethylene Dibromide	0.00240	U	0.00240	0.0100	1	12/11/2020 22:17	WG1589548

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	58.62	ft
pH (On Site)	7.86	su
Temperature (on-site)	23	Deg. C
Specific Conductance (on site)	224	umhos/cm
Dissolved Oxygen (on-site)	.1	mg/l
Turbidity (on-site)	3.53	NTU
eH/ORP (On Site)	256	mV

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	7.98		0.0519	1.00	1	12/17/2020 03:39	WG1593001

⁶ Qc

⁷ Gl

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/18/2020 16:09	WG1593099

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sodium, Total Recoverable	3.77		0.0111	1.00	1	12/17/2020 21:19	WG1593014



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	58.89	ft
pH (On Site)	5.55	su
Temperature (on-site)	24.2	Deg. C
Specific Conductance (on site)	289	umhos/cm
Dissolved Oxygen (on-site)	2.3	mg/l
Turbidity (on-site)	3.91	NTU
eH/ORP (On Site)	211	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Dissolved Solids	200		2.82	10.0	1	12/09/2020 06:00	WG1588744

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Chloride	43.1		0.0519	1.00	1	12/04/2020 20:41	WG1586712
Nitrate as (N)	0.0227	<u>U</u>	0.0227	0.100	1	12/04/2020 20:41	WG1586712

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/18/2020 16:11	WG1593099

Mercury by Method 7470A

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Mercury	3.94		0.0490	0.200	1	12/16/2020 10:39	WG1589921

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Sodium, Total Recoverable	15.0		0.0111	1.00	1	12/17/2020 21:27	WG1593014
Analyte							
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/17/2020 21:27	WG1593014
Barium, Total Recoverable	35.9		1.70	5.00	1	12/17/2020 21:27	WG1593014
Cadmium, Total Recoverable	1.08	<u>I</u>	0.700	2.00	1	12/17/2020 21:27	WG1593014
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/17/2020 21:27	WG1593014
Chromium, Total Recoverable	1.40	<u>U</u>	1.40	10.0	1	12/17/2020 21:27	WG1593014
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/17/2020 21:27	WG1593014
Iron, Total Recoverable	14.1	<u>U</u>	14.1	100	1	12/17/2020 21:27	WG1593014
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/17/2020 21:27	WG1593014
Lead, Total Recoverable	1.90	<u>U</u>	1.90	5.00	1	12/17/2020 21:27	WG1593014
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/17/2020 21:27	WG1593014
Vanadium, Total Recoverable	2.40	<u>U</u>	2.40	20.0	1	12/17/2020 21:27	WG1593014
Zinc, Total Recoverable	8.14	<u>I V</u>	5.90	50.0	1	12/17/2020 21:27	WG1593014



Collected date/time: 12/03/20 12:55

L1291962

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	0.250	U	0.250	2.00	1	12/16/2020 16:46	WG1592098
Beryllium, Total Recoverable	0.127	U	0.120	2.00	1	12/16/2020 16:46	WG1592098
Antimony, Total Recoverable	0.754	U	0.754	2.00	1	12/16/2020 16:46	WG1592098
Thallium, Total Recoverable	0.190	U	0.190	2.00	1	12/16/2020 16:46	WG1592098

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	U	0.120	0.500	1	12/07/2020 18:50	WG1587929
1,1,1-Trichloroethane	0.0940	U	0.0940	0.500	1	12/07/2020 18:50	WG1587929
1,1,2,2-Tetrachloroethane	0.130	U	0.130	0.500	1	12/07/2020 18:50	WG1587929
1,1,2-Trichloroethane	0.0940	U	0.0940	0.500	1	12/07/2020 18:50	WG1587929
1,1-Dichloroethane	0.114	U	0.114	0.500	1	12/07/2020 18:50	WG1587929
1,1-Dichloroethene	0.188	U	0.188	0.500	1	12/07/2020 18:50	WG1587929
1,2,3-Trichloropropane	0.247	U	0.247	2.50	1	12/07/2020 18:50	WG1587929
1,2-Dichlorobenzene	0.101	U	0.101	0.500	1	12/07/2020 18:50	WG1587929
1,2-Dichloroethane	0.108	U	0.108	0.500	1	12/07/2020 18:50	WG1587929
1,2-Dichloropropane	0.190	U	0.190	0.500	1	12/07/2020 18:50	WG1587929
1,4-Dichlorobenzene	0.121	U	0.121	0.500	1	12/07/2020 18:50	WG1587929
2-Butanone (MEK)	1.28	U	1.28	5.00	1	12/07/2020 18:50	WG1587929
2-Hexanone	0.757	U	0.757	5.00	1	12/07/2020 18:50	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	U	0.823	5.00	1	12/07/2020 18:50	WG1587929
Acetone	1.05	U	1.05	25.0	1	12/07/2020 18:50	WG1587929
Acrylonitrile	0.873	U	0.873	5.00	1	12/07/2020 18:50	WG1587929
Benzene	0.0896	U	0.0896	0.500	1	12/07/2020 18:50	WG1587929
Bromochloromethane	0.145	U	0.145	0.500	1	12/07/2020 18:50	WG1587929
Bromodichloromethane	0.0800	U	0.0800	0.500	1	12/07/2020 18:50	WG1587929
Bromoform	0.186	U	0.186	0.500	1	12/07/2020 18:50	WG1587929
Bromomethane	0.157	U	0.157	2.50	1	12/07/2020 18:50	WG1587929
Carbon disulfide	0.101	U	0.101	0.500	1	12/07/2020 18:50	WG1587929
Carbon tetrachloride	0.159	U	0.159	0.500	1	12/07/2020 18:50	WG1587929
Chlorobenzene	0.140	U	0.140	0.500	1	12/07/2020 18:50	WG1587929
Chloroethane	0.141	U	0.141	2.50	1	12/07/2020 18:50	WG1587929
Chloroform	0.181	U	0.0860	0.500	1	12/07/2020 18:50	WG1587929
Chloromethane	0.153	U	0.153	1.25	1	12/07/2020 18:50	WG1587929
Dibromochloromethane	0.128	U	0.128	0.500	1	12/07/2020 18:50	WG1587929
Dibromomethane	0.117	U	0.117	0.500	1	12/07/2020 18:50	WG1587929
Ethylbenzene	0.158	U	0.158	0.500	1	12/07/2020 18:50	WG1587929
Iodomethane	0.377	U	0.377	10.0	1	12/07/2020 18:50	WG1587929
Methylene Chloride	1.07	U	1.07	2.50	1	12/07/2020 18:50	WG1587929
Styrene	0.117	U	0.117	0.500	1	12/07/2020 18:50	WG1587929
Tetrachloroethene	0.199	U	0.199	0.500	1	12/07/2020 18:50	WG1587929
Toluene	0.412	U	0.412	0.500	1	12/07/2020 18:50	WG1587929
Trichloroethene	0.153	U	0.153	0.500	1	12/07/2020 18:50	WG1587929
Trichlorofluoromethane	0.130	U	0.130	2.50	1	12/07/2020 18:50	WG1587929
Vinyl acetate	0.645	U	0.645	5.00	1	12/07/2020 18:50	WG1587929
Vinyl chloride	0.118	U	0.118	0.500	1	12/07/2020 18:50	WG1587929
Xylenes, Total	0.316	U	0.316	1.50	1	12/07/2020 18:50	WG1587929
cis-1,2-Dichloroethene	0.0933	U	0.0933	0.500	1	12/07/2020 18:50	WG1587929
cis-1,3-Dichloropropene	0.0976	U	0.0976	0.500	1	12/07/2020 18:50	WG1587929
trans-1,2-Dichloroethene	0.152	U	0.152	0.500	1	12/07/2020 18:50	WG1587929
trans-1,3-Dichloropropene	0.222	U	0.222	0.500	1	12/07/2020 18:50	WG1587929
trans-1,4-Dichloro-2-butene	0.257	U	0.257	5.00	1	12/07/2020 18:50	WG1587929
(S) 4-Bromofluorobenzene	107			77.0-126		12/07/2020 18:50	WG1587929
(S) Toluene-d8	112			80.0-120		12/07/2020 18:50	WG1587929
(S) 1,2-Dichloroethane-d4	92.8			70.0-130		12/07/2020 18:50	WG1587929





Collected date/time: 12/03/20 12:55

L1291962

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200	1	12/11/2020 22:30	WG1589548
Ethylene Dibromide	0.00240	U	0.00240	0.0100	1	12/11/2020 22:30	WG1589548

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	58.92	ft
pH (On Site)	7.96	su
Temperature (on-site)	24.8	Deg. C
Specific Conductance (on site)	322	umhos/cm
Dissolved Oxygen (on-site)	1	mg/l
Turbidity (on-site)	3.5	NTU
eH/ORP (On Site)	198	mV

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	23.1		0.0519	1.00	1	12/17/2020 03:56	WG1593001

⁶ Qc

⁷ Gl

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/18/2020 16:13	WG1593099

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sodium, Total Recoverable	8.29		0.0111	1.00	1	12/17/2020 21:30	WG1593014



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	72.81	ft
pH (On Site)	7.24	su
Temperature (on-site)	23.3	Deg. C
Specific Conductance (on site)	311	umhos/cm
Dissolved Oxygen (on-site)	1	mg/l
Turbidity (on-site)	4.59	NTU
eH/ORP (On Site)	111	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Dissolved Solids	187		2.82	10.0	1	12/09/2020 06:00	WG1588744

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Chloride	11.7		0.0519	1.00	1	12/04/2020 20:58	WG1586712
Nitrate as (N)	6.09		0.0227	0.100	1	12/04/2020 20:58	WG1586712

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/18/2020 16:14	WG1593099

Mercury by Method 7470A

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Mercury	0.0490	<u>U</u>	0.0490	0.200	1	12/16/2020 10:41	WG1589921

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Sodium, Total Recoverable	6.76		0.0111	1.00	1	12/17/2020 21:33	WG1593014

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/17/2020 21:33	WG1593014
Barium, Total Recoverable	25.7		1.70	5.00	1	12/17/2020 21:33	WG1593014
Cadmium, Total Recoverable	0.700	<u>U</u>	0.700	2.00	1	12/17/2020 21:33	WG1593014
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/17/2020 21:33	WG1593014
Chromium, Total Recoverable	2.52	<u>I</u>	1.40	10.0	1	12/17/2020 21:33	WG1593014
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/17/2020 21:33	WG1593014
Iron, Total Recoverable	6910		14.1	100	1	12/17/2020 21:33	WG1593014
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/17/2020 21:33	WG1593014
Lead, Total Recoverable	1.91	<u>I</u>	1.90	5.00	1	12/17/2020 21:33	WG1593014
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/17/2020 21:33	WG1593014
Vanadium, Total Recoverable	2.40	<u>U</u>	2.40	20.0	1	12/17/2020 21:33	WG1593014
Zinc, Total Recoverable	5.90	<u>U</u>	5.90	50.0	1	12/17/2020 21:33	WG1593014



Collected date/time: 12/03/20 10:27

L1291962

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	5.82		0.250	2.00	1	12/16/2020 16:49	WG1592098
Beryllium, Total Recoverable	0.120	J	0.120	2.00	1	12/16/2020 16:49	WG1592098
Antimony, Total Recoverable	0.754	J	0.754	2.00	1	12/16/2020 16:49	WG1592098
Thallium, Total Recoverable	0.190	J	0.190	2.00	1	12/16/2020 16:49	WG1592098

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	J	0.120	0.500	1	12/07/2020 19:10	WG1587929
1,1,1-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 19:10	WG1587929
1,1,2,2-Tetrachloroethane	0.130	J	0.130	0.500	1	12/07/2020 19:10	WG1587929
1,1,2-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 19:10	WG1587929
1,1-Dichloroethane	0.114	J	0.114	0.500	1	12/07/2020 19:10	WG1587929
1,1-Dichloroethene	0.188	J	0.188	0.500	1	12/07/2020 19:10	WG1587929
1,2,3-Trichloropropane	0.247	J	0.247	2.50	1	12/07/2020 19:10	WG1587929
1,2-Dichlorobenzene	0.101	J	0.101	0.500	1	12/07/2020 19:10	WG1587929
1,2-Dichloroethane	0.108	J	0.108	0.500	1	12/07/2020 19:10	WG1587929
1,2-Dichloropropane	0.190	J	0.190	0.500	1	12/07/2020 19:10	WG1587929
1,4-Dichlorobenzene	0.121	J	0.121	0.500	1	12/07/2020 19:10	WG1587929
2-Butanone (MEK)	1.28	J	1.28	5.00	1	12/07/2020 19:10	WG1587929
2-Hexanone	0.757	J	0.757	5.00	1	12/07/2020 19:10	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	J	0.823	5.00	1	12/07/2020 19:10	WG1587929
Acetone	1.53	-	1.05	25.0	1	12/07/2020 19:10	WG1587929
Acrylonitrile	0.873	J	0.873	5.00	1	12/07/2020 19:10	WG1587929
Benzene	0.0896	J	0.0896	0.500	1	12/07/2020 19:10	WG1587929
Bromochloromethane	0.145	J	0.145	0.500	1	12/07/2020 19:10	WG1587929
Bromodichloromethane	0.0800	J	0.0800	0.500	1	12/07/2020 19:10	WG1587929
Bromoform	0.186	J	0.186	0.500	1	12/07/2020 19:10	WG1587929
Bromomethane	0.157	J	0.157	2.50	1	12/07/2020 19:10	WG1587929
Carbon disulfide	0.101	J	0.101	0.500	1	12/07/2020 19:10	WG1587929
Carbon tetrachloride	0.159	J	0.159	0.500	1	12/07/2020 19:10	WG1587929
Chlorobenzene	0.140	J	0.140	0.500	1	12/07/2020 19:10	WG1587929
Chloroethane	0.141	J	0.141	2.50	1	12/07/2020 19:10	WG1587929
Chloroform	0.0860	J	0.0860	0.500	1	12/07/2020 19:10	WG1587929
Chloromethane	0.153	J	0.153	1.25	1	12/07/2020 19:10	WG1587929
Dibromochloromethane	0.128	J	0.128	0.500	1	12/07/2020 19:10	WG1587929
Dibromomethane	0.117	J	0.117	0.500	1	12/07/2020 19:10	WG1587929
Ethylbenzene	0.158	J	0.158	0.500	1	12/07/2020 19:10	WG1587929
Iodomethane	0.377	J	0.377	10.0	1	12/07/2020 19:10	WG1587929
Methylene Chloride	1.07	J	1.07	2.50	1	12/07/2020 19:10	WG1587929
Styrene	0.117	J	0.117	0.500	1	12/07/2020 19:10	WG1587929
Tetrachloroethene	0.199	J	0.199	0.500	1	12/07/2020 19:10	WG1587929
Toluene	0.412	J	0.412	0.500	1	12/07/2020 19:10	WG1587929
Trichloroethene	0.153	J	0.153	0.500	1	12/07/2020 19:10	WG1587929
Trichlorofluoromethane	0.130	J	0.130	2.50	1	12/07/2020 19:10	WG1587929
Vinyl acetate	0.645	J	0.645	5.00	1	12/07/2020 19:10	WG1587929
Vinyl chloride	0.118	J	0.118	0.500	1	12/07/2020 19:10	WG1587929
Xylenes, Total	0.316	J	0.316	1.50	1	12/07/2020 19:10	WG1587929
cis-1,2-Dichloroethene	0.0933	J	0.0933	0.500	1	12/07/2020 19:10	WG1587929
cis-1,3-Dichloropropene	0.0976	J	0.0976	0.500	1	12/07/2020 19:10	WG1587929
trans-1,2-Dichloroethene	0.152	J	0.152	0.500	1	12/07/2020 19:10	WG1587929
trans-1,3-Dichloropropene	0.222	J	0.222	0.500	1	12/07/2020 19:10	WG1587929
trans-1,4-Dichloro-2-butene	0.257	J	0.257	5.00	1	12/07/2020 19:10	WG1587929
(S) 4-Bromofluorobenzene	107			77.0-126		12/07/2020 19:10	WG1587929
(S) Toluene-d8	110			80.0-120		12/07/2020 19:10	WG1587929
(S) 1,2-Dichloroethane-d4	90.1			70.0-130		12/07/2020 19:10	WG1587929

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc



Collected date/time: 12/03/20 10:27

L1291962

EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200	1	12/11/2020 22:43	WG1589548
Ethylene Dibromide	0.00240	U	0.00240	0.0100	1	12/11/2020 22:43	WG1589548

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	60.27	ft
pH (On Site)	7.53	su
Temperature (on-site)	22.2	Deg. C
Specific Conductance (on site)	209	umhos/cm
Dissolved Oxygen (on-site)	.1	mg/l
Turbidity (on-site)	2.64	NTU
eH/ORP (On Site)	103	mV

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Chloride	5.63		0.0519	1.00	1	12/17/2020 04:14	WG1593001

⁶ Qc

⁷ Gl

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/18/2020 16:16	WG1593099

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Sodium, Total Recoverable	6.76		0.0111	1.00	1	12/17/2020 21:35	WG1593014



Additional Information

Analyte	Result	Units
Sampling Method	Z	

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	U	0.120	0.500	1	12/07/2020 15:20	WG1587929
1,1,1-Trichloroethane	0.0940	U	0.0940	0.500	1	12/07/2020 15:20	WG1587929
1,1,2,2-Tetrachloroethane	0.130	U	0.130	0.500	1	12/07/2020 15:20	WG1587929
1,1,2-Trichloroethane	0.0940	U	0.0940	0.500	1	12/07/2020 15:20	WG1587929
1,1-Dichloroethane	0.114	U	0.114	0.500	1	12/07/2020 15:20	WG1587929
1,1-Dichloroethene	0.188	U	0.188	0.500	1	12/07/2020 15:20	WG1587929
1,2,3-Trichloropropane	0.247	U	0.247	2.50	1	12/07/2020 15:20	WG1587929
1,2-Dichlorobenzene	0.101	U	0.101	0.500	1	12/07/2020 15:20	WG1587929
1,2-Dichloroethane	0.108	U	0.108	0.500	1	12/07/2020 15:20	WG1587929
1,2-Dichloropropane	0.190	U	0.190	0.500	1	12/07/2020 15:20	WG1587929
1,4-Dichlorobenzene	0.121	U	0.121	0.500	1	12/07/2020 15:20	WG1587929
2-Butanone (MEK)	1.28	U	1.28	5.00	1	12/07/2020 15:20	WG1587929
2-Hexanone	0.757	U	0.757	5.00	1	12/07/2020 15:20	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	U	0.823	5.00	1	12/07/2020 15:20	WG1587929
Acetone	1.05	U	1.05	25.0	1	12/07/2020 15:20	WG1587929
Acrylonitrile	0.873	U	0.873	5.00	1	12/07/2020 15:20	WG1587929
Benzene	0.0896	U	0.0896	0.500	1	12/07/2020 15:20	WG1587929
Bromochloromethane	0.145	U	0.145	0.500	1	12/07/2020 15:20	WG1587929
Bromodichloromethane	0.0800	U	0.0800	0.500	1	12/07/2020 15:20	WG1587929
Bromoform	0.186	U	0.186	0.500	1	12/07/2020 15:20	WG1587929
Bromomethane	0.157	U	0.157	2.50	1	12/07/2020 15:20	WG1587929
Carbon disulfide	0.101	U	0.101	0.500	1	12/07/2020 15:20	WG1587929
Carbon tetrachloride	0.159	U	0.159	0.500	1	12/07/2020 15:20	WG1587929
Chlorobenzene	0.140	U	0.140	0.500	1	12/07/2020 15:20	WG1587929
Chloroethane	0.141	U	0.141	2.50	1	12/07/2020 15:20	WG1587929
Chloroform	0.0860	U	0.0860	0.500	1	12/07/2020 15:20	WG1587929
Chloromethane	0.153	U	0.153	1.25	1	12/07/2020 15:20	WG1587929
Dibromochloromethane	0.128	U	0.128	0.500	1	12/07/2020 15:20	WG1587929
Dibromomethane	0.117	U	0.117	0.500	1	12/07/2020 15:20	WG1587929
Ethylbenzene	0.158	U	0.158	0.500	1	12/07/2020 15:20	WG1587929
Iodomethane	0.377	U	0.377	10.0	1	12/07/2020 15:20	WG1587929
Methylene Chloride	1.07	U	1.07	2.50	1	12/07/2020 15:20	WG1587929
Styrene	0.117	U	0.117	0.500	1	12/07/2020 15:20	WG1587929
Tetrachloroethene	0.199	U	0.199	0.500	1	12/07/2020 15:20	WG1587929
Toluene	0.412	U	0.412	0.500	1	12/07/2020 15:20	WG1587929
Trichloroethene	0.153	U	0.153	0.500	1	12/07/2020 15:20	WG1587929
Trichlorofluoromethane	0.130	U	0.130	2.50	1	12/07/2020 15:20	WG1587929
Vinyl acetate	0.645	U	0.645	5.00	1	12/07/2020 15:20	WG1587929
Vinyl chloride	0.118	U	0.118	0.500	1	12/07/2020 15:20	WG1587929
Xylenes, Total	0.316	U	0.316	1.50	1	12/07/2020 15:20	WG1587929
cis-1,2-Dichloroethene	0.0933	U	0.0933	0.500	1	12/07/2020 15:20	WG1587929
cis-1,3-Dichloropropene	0.0976	U	0.0976	0.500	1	12/07/2020 15:20	WG1587929
trans-1,2-Dichloroethene	0.152	U	0.152	0.500	1	12/07/2020 15:20	WG1587929
trans-1,3-Dichloropropene	0.222	U	0.222	0.500	1	12/07/2020 15:20	WG1587929
trans-1,4-Dichloro-2-butene	0.257	U	0.257	5.00	1	12/07/2020 15:20	WG1587929
(S) 4-Bromofluorobenzene	109			77.0-126		12/07/2020 15:20	WG1587929
(S) Toluene-d8	111			80.0-120		12/07/2020 15:20	WG1587929
(S) 1,2-Dichloroethane-d4	94.7			70.0-130		12/07/2020 15:20	WG1587929

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	60.22	ft
pH (On Site)	5.34	su
Temperature (on-site)	25	Deg. C
Specific Conductance (on site)	78	umhos/cm
Dissolved Oxygen (on-site)	5.1	mg/l
Turbidity (on-site)	3.43	NTU
eH/ORP (On Site)	119	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Dissolved Solids	38.0	V	2.82	10.0	1	12/10/2020 13:40	WG1589693

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Chloride	1.24	V	0.0519	1.00	1	12/05/2020 22:51	WG1587093
Nitrate as (N)	0.134		0.0227	0.100	1	12/05/2020 22:51	WG1587093

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Ammonia Nitrogen	0.0317	U	0.0317	0.100	1	12/21/2020 18:57	WG1593418

Mercury by Method 7470A

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Mercury	0.0490	U	0.0490	0.200	1	12/16/2020 10:43	WG1589921

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Sodium, Total Recoverable	1.50		0.0111	1.00	1	12/21/2020 20:52	WG1594013
Analyte							
Silver, Total Recoverable	2.80	U	2.80	5.00	1	12/21/2020 20:52	WG1594013
Barium, Total Recoverable	11.6		1.70	5.00	1	12/21/2020 20:52	WG1594013
Cadmium, Total Recoverable	0.700	U	0.700	2.00	1	12/21/2020 20:52	WG1594013
Cobalt, Total Recoverable	2.30	U	2.30	10.0	1	12/21/2020 20:52	WG1594013
Chromium, Total Recoverable	1.40	U	1.40	10.0	1	12/21/2020 20:52	WG1594013
Copper, Total Recoverable	5.30	U	5.30	10.0	1	12/21/2020 20:52	WG1594013
Iron, Total Recoverable	16.0	I	14.1	100	1	12/21/2020 20:52	WG1594013
Nickel, Total Recoverable	4.90	U	4.90	10.0	1	12/21/2020 20:52	WG1594013
Lead, Total Recoverable	1.90	U	1.90	5.00	1	12/21/2020 20:52	WG1594013
Selenium, Total Recoverable	7.40	U	7.40	10.0	1	12/21/2020 20:52	WG1594013
Vanadium, Total Recoverable	2.40	U	2.40	20.0	1	12/21/2020 20:52	WG1594013
Zinc, Total Recoverable	5.90	U	5.90	50.0	1	12/21/2020 20:52	WG1594013



Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	0.250	J	0.250	2.00	1	12/18/2020 16:54	WG1594017
Beryllium, Total Recoverable	0.120	J	0.120	2.00	1	12/18/2020 16:54	WG1594017
Antimony, Total Recoverable	0.754	J	0.754	2.00	1	12/18/2020 16:54	WG1594017
Thallium, Total Recoverable	0.231	J	0.190	2.00	1	12/18/2020 16:54	WG1594017

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	J	0.120	0.500	1	12/07/2020 19:29	WG1587929
1,1,1-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 19:29	WG1587929
1,1,2,2-Tetrachloroethane	0.130	J	0.130	0.500	1	12/07/2020 19:29	WG1587929
1,1,2-Trichloroethane	0.0940	J	0.0940	0.500	1	12/07/2020 19:29	WG1587929
1,1-Dichloroethane	0.114	J	0.114	0.500	1	12/07/2020 19:29	WG1587929
1,1-Dichloroethene	0.188	J	0.188	0.500	1	12/07/2020 19:29	WG1587929
1,2,3-Trichloropropane	0.247	J	0.247	2.50	1	12/07/2020 19:29	WG1587929
1,2-Dichlorobenzene	0.101	J	0.101	0.500	1	12/07/2020 19:29	WG1587929
1,2-Dichloroethane	0.108	J	0.108	0.500	1	12/07/2020 19:29	WG1587929
1,2-Dichloropropane	0.190	J	0.190	0.500	1	12/07/2020 19:29	WG1587929
1,4-Dichlorobenzene	0.121	J	0.121	0.500	1	12/07/2020 19:29	WG1587929
2-Butanone (MEK)	1.28	J	1.28	5.00	1	12/07/2020 19:29	WG1587929
2-Hexanone	0.757	J	0.757	5.00	1	12/07/2020 19:29	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	J	0.823	5.00	1	12/07/2020 19:29	WG1587929
Acetone	1.05	J	1.05	25.0	1	12/07/2020 19:29	WG1587929
Acrylonitrile	0.873	J	0.873	5.00	1	12/07/2020 19:29	WG1587929
Benzene	0.0896	J	0.0896	0.500	1	12/07/2020 19:29	WG1587929
Bromochloromethane	0.145	J	0.145	0.500	1	12/07/2020 19:29	WG1587929
Bromodichloromethane	0.0800	J	0.0800	0.500	1	12/07/2020 19:29	WG1587929
Bromoform	0.186	J	0.186	0.500	1	12/07/2020 19:29	WG1587929
Bromomethane	0.157	J	0.157	2.50	1	12/07/2020 19:29	WG1587929
Carbon disulfide	0.101	J	0.101	0.500	1	12/07/2020 19:29	WG1587929
Carbon tetrachloride	0.159	J	0.159	0.500	1	12/07/2020 19:29	WG1587929
Chlorobenzene	0.140	J	0.140	0.500	1	12/07/2020 19:29	WG1587929
Chloroethane	0.141	J	0.141	2.50	1	12/07/2020 19:29	WG1587929
Chloroform	0.0860	J	0.0860	0.500	1	12/07/2020 19:29	WG1587929
Chloromethane	0.153	J	0.153	1.25	1	12/07/2020 19:29	WG1587929
Dibromochloromethane	0.128	J	0.128	0.500	1	12/07/2020 19:29	WG1587929
Dibromomethane	0.117	J	0.117	0.500	1	12/07/2020 19:29	WG1587929
Ethylbenzene	0.158	J	0.158	0.500	1	12/07/2020 19:29	WG1587929
Iodomethane	0.377	J	0.377	10.0	1	12/07/2020 19:29	WG1587929
Methylene Chloride	1.07	J	1.07	2.50	1	12/07/2020 19:29	WG1587929
Styrene	0.117	J	0.117	0.500	1	12/07/2020 19:29	WG1587929
Tetrachloroethene	0.199	J	0.199	0.500	1	12/07/2020 19:29	WG1587929
Toluene	0.412	J	0.412	0.500	1	12/07/2020 19:29	WG1587929
Trichloroethene	0.153	J	0.153	0.500	1	12/07/2020 19:29	WG1587929
Trichlorofluoromethane	0.130	J	0.130	2.50	1	12/07/2020 19:29	WG1587929
Vinyl acetate	0.645	J	0.645	5.00	1	12/07/2020 19:29	WG1587929
Vinyl chloride	0.118	J	0.118	0.500	1	12/07/2020 19:29	WG1587929
Xylenes, Total	0.316	J	0.316	1.50	1	12/07/2020 19:29	WG1587929
cis-1,2-Dichloroethene	0.0933	J	0.0933	0.500	1	12/07/2020 19:29	WG1587929
cis-1,3-Dichloropropene	0.0976	J	0.0976	0.500	1	12/07/2020 19:29	WG1587929
trans-1,2-Dichloroethene	0.152	J	0.152	0.500	1	12/07/2020 19:29	WG1587929
trans-1,3-Dichloropropene	0.222	J	0.222	0.500	1	12/07/2020 19:29	WG1587929
trans-1,4-Dichloro-2-butene	0.257	J	0.257	5.00	1	12/07/2020 19:29	WG1587929
(S) 4-Bromofluorobenzene	109			77.0-126		12/07/2020 19:29	WG1587929
(S) Toluene-d8	110			80.0-120		12/07/2020 19:29	WG1587929
(S) 1,2-Dichloroethane-d4	95.2			70.0-130		12/07/2020 19:29	WG1587929

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc



EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200	1	12/11/2020 22:56	WG1589548
Ethylene Dibromide	0.00240	U	0.00240	0.0100	1	12/11/2020 22:56	WG1589548

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	59.24	ft
pH (On Site)	7.95	su
Temperature (on-site)	25.4	Deg. C
Specific Conductance (on site)	175	umhos/cm
Dissolved Oxygen (on-site)	.2	mg/l
Turbidity (on-site)	4.86	NTU
eH/ORP (On Site)	144	mV

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

Wet Chemistry by Method 300.0

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Chloride	5.32		0.0519	1.00	1	12/19/2020 23:21	WG1594575

⁶ Qc

⁷ Gl

Wet Chemistry by Method 350.1

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/21/2020 18:59	WG1593418

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Sodium, Total Recoverable	4.56		0.0111	1.00	1	12/21/2020 20:40	WG1594013



Additional Information

	Result	Units
Analyte		
Sampling Method	BP	
Groundwater Elevation	61.18	ft
pH (On Site)	6.93	su
Temperature (on-site)	24.8	Deg. C
Specific Conductance (on site)	285	umhos/cm
Dissolved Oxygen (on-site)	1.4	mg/l
Turbidity (on-site)	4.25	NTU
eH/ORP (On Site)	166	mV

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Gravimetric Analysis by Method 2540 C-2011

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Dissolved Solids	183		2.82	10.0	1	12/10/2020 13:40	WG1589693

Wet Chemistry by Method 300.0

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Chloride	14.8		0.0519	1.00	1	12/05/2020 23:22	WG1587093
Nitrate as (N)	4.45		0.0227	0.100	1	12/05/2020 23:22	WG1587093

Wet Chemistry by Method 350.1

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100	1	12/21/2020 19:01	WG1593418

Mercury by Method 7470A

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Mercury	0.0490	<u>U</u>	0.0490	0.200	1	12/16/2020 10:45	WG1589921

Metals (ICP) by Method 6010B

	Result	Qualifier	MDL	RDL	Dilution	Analysis date / time	Batch
Analyte							
Sodium, Total Recoverable	6.79		0.0111	1.00	1	12/21/2020 20:54	WG1594013
Analyte							
Silver, Total Recoverable	2.80	<u>U</u>	2.80	5.00	1	12/21/2020 20:54	WG1594013
Barium, Total Recoverable	26.8		1.70	5.00	1	12/21/2020 20:54	WG1594013
Cadmium, Total Recoverable	0.700	<u>U</u>	0.700	2.00	1	12/21/2020 20:54	WG1594013
Cobalt, Total Recoverable	2.30	<u>U</u>	2.30	10.0	1	12/21/2020 20:54	WG1594013
Chromium, Total Recoverable	1.40	<u>U</u>	1.40	10.0	1	12/21/2020 20:54	WG1594013
Copper, Total Recoverable	5.30	<u>U</u>	5.30	10.0	1	12/21/2020 20:54	WG1594013
Iron, Total Recoverable	14.1	<u>U</u>	14.1	100	1	12/21/2020 20:54	WG1594013
Nickel, Total Recoverable	4.90	<u>U</u>	4.90	10.0	1	12/21/2020 20:54	WG1594013
Lead, Total Recoverable	1.90	<u>U</u>	1.90	5.00	1	12/21/2020 20:54	WG1594013
Selenium, Total Recoverable	7.40	<u>U</u>	7.40	10.0	1	12/21/2020 20:54	WG1594013
Vanadium, Total Recoverable	2.40	<u>U</u>	2.40	20.0	1	12/21/2020 20:54	WG1594013
Zinc, Total Recoverable	9.49	<u>I</u>	5.90	50.0	1	12/21/2020 20:54	WG1594013



Collected date/time: 12/04/20 07:22

L1291962

Metals (ICPMS) by Method 6020

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic, Total Recoverable	1.26	1	0.250	2.00	1	12/18/2020 16:58	WG1594017
Beryllium, Total Recoverable	0.120	1	0.120	2.00	1	12/18/2020 16:58	WG1594017
Antimony, Total Recoverable	0.754	1	0.754	2.00	1	12/18/2020 16:58	WG1594017
Thallium, Total Recoverable	0.190	1	0.190	2.00	1	12/18/2020 16:58	WG1594017

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	1	0.120	0.500	1	12/07/2020 19:48	WG1587929
1,1,1-Trichloroethane	0.0940	1	0.0940	0.500	1	12/07/2020 19:48	WG1587929
1,1,2,2-Tetrachloroethane	0.130	1	0.130	0.500	1	12/07/2020 19:48	WG1587929
1,1,2-Trichloroethane	0.0940	1	0.0940	0.500	1	12/07/2020 19:48	WG1587929
1,1-Dichloroethane	0.114	1	0.114	0.500	1	12/07/2020 19:48	WG1587929
1,1-Dichloroethene	0.188	1	0.188	0.500	1	12/07/2020 19:48	WG1587929
1,2,3-Trichloropropane	0.247	1	0.247	2.50	1	12/07/2020 19:48	WG1587929
1,2-Dichlorobenzene	0.101	1	0.101	0.500	1	12/07/2020 19:48	WG1587929
1,2-Dichloroethane	0.108	1	0.108	0.500	1	12/07/2020 19:48	WG1587929
1,2-Dichloropropane	0.190	1	0.190	0.500	1	12/07/2020 19:48	WG1587929
1,4-Dichlorobenzene	0.121	1	0.121	0.500	1	12/07/2020 19:48	WG1587929
2-Butanone (MEK)	1.28	1	1.28	5.00	1	12/07/2020 19:48	WG1587929
2-Hexanone	0.757	1	0.757	5.00	1	12/07/2020 19:48	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	1	0.823	5.00	1	12/07/2020 19:48	WG1587929
Acetone	1.05	1	1.05	25.0	1	12/07/2020 19:48	WG1587929
Acrylonitrile	0.873	1	0.873	5.00	1	12/07/2020 19:48	WG1587929
Benzene	0.0896	1	0.0896	0.500	1	12/07/2020 19:48	WG1587929
Bromochloromethane	0.145	1	0.145	0.500	1	12/07/2020 19:48	WG1587929
Bromodichloromethane	0.0800	1	0.0800	0.500	1	12/07/2020 19:48	WG1587929
Bromoform	0.186	1	0.186	0.500	1	12/07/2020 19:48	WG1587929
Bromomethane	0.157	1	0.157	2.50	1	12/07/2020 19:48	WG1587929
Carbon disulfide	0.101	1	0.101	0.500	1	12/07/2020 19:48	WG1587929
Carbon tetrachloride	0.159	1	0.159	0.500	1	12/07/2020 19:48	WG1587929
Chlorobenzene	0.140	1	0.140	0.500	1	12/07/2020 19:48	WG1587929
Chloroethane	0.141	1	0.141	2.50	1	12/07/2020 19:48	WG1587929
Chloroform	0.0860	1	0.0860	0.500	1	12/07/2020 19:48	WG1587929
Chloromethane	0.153	1	0.153	1.25	1	12/07/2020 19:48	WG1587929
Dibromochloromethane	0.128	1	0.128	0.500	1	12/07/2020 19:48	WG1587929
Dibromomethane	0.117	1	0.117	0.500	1	12/07/2020 19:48	WG1587929
Ethylbenzene	0.158	1	0.158	0.500	1	12/07/2020 19:48	WG1587929
Iodomethane	0.377	1	0.377	10.0	1	12/07/2020 19:48	WG1587929
Methylene Chloride	1.07	1	1.07	2.50	1	12/07/2020 19:48	WG1587929
Styrene	0.117	1	0.117	0.500	1	12/07/2020 19:48	WG1587929
Tetrachloroethene	0.199	1	0.199	0.500	1	12/07/2020 19:48	WG1587929
Toluene	0.412	1	0.412	0.500	1	12/07/2020 19:48	WG1587929
Trichloroethene	0.153	1	0.153	0.500	1	12/07/2020 19:48	WG1587929
Trichlorofluoromethane	0.130	1	0.130	2.50	1	12/07/2020 19:48	WG1587929
Vinyl acetate	0.645	1	0.645	5.00	1	12/07/2020 19:48	WG1587929
Vinyl chloride	0.118	1	0.118	0.500	1	12/07/2020 19:48	WG1587929
Xylenes, Total	0.316	1	0.316	1.50	1	12/07/2020 19:48	WG1587929
cis-1,2-Dichloroethene	0.0933	1	0.0933	0.500	1	12/07/2020 19:48	WG1587929
cis-1,3-Dichloropropene	0.0976	1	0.0976	0.500	1	12/07/2020 19:48	WG1587929
trans-1,2-Dichloroethene	0.152	1	0.152	0.500	1	12/07/2020 19:48	WG1587929
trans-1,3-Dichloropropene	0.222	1	0.222	0.500	1	12/07/2020 19:48	WG1587929
trans-1,4-Dichloro-2-butene	0.257	1	0.257	5.00	1	12/07/2020 19:48	WG1587929
(S) 4-Bromofluorobenzene	109			77.0-126		12/07/2020 19:48	WG1587929
(S) Toluene-d8	111			80.0-120		12/07/2020 19:48	WG1587929
(S) 1,2-Dichloroethane-d4	93.7			70.0-130		12/07/2020 19:48	WG1587929

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc



EDB / DBCP by Method 8011

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200	1	12/11/2020 23:09	WG1589548
Ethylene Dibromide	0.00240	U	0.00240	0.0100	1	12/11/2020 23:09	WG1589548

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	0.120	U	0.120	0.500	1	12/07/2020 15:39	WG1587929
1,1,1-Trichloroethane	0.0940	U	0.0940	0.500	1	12/07/2020 15:39	WG1587929
1,1,2,2-Tetrachloroethane	0.130	U	0.130	0.500	1	12/07/2020 15:39	WG1587929
1,1,2-Trichloroethane	0.0940	U	0.0940	0.500	1	12/07/2020 15:39	WG1587929
1,1-Dichloroethane	0.114	U	0.114	0.500	1	12/07/2020 15:39	WG1587929
1,1-Dichloroethene	0.188	U	0.188	0.500	1	12/07/2020 15:39	WG1587929
1,2,3-Trichloropropane	0.247	U	0.247	2.50	1	12/07/2020 15:39	WG1587929
1,2-Dichlorobenzene	0.101	U	0.101	0.500	1	12/07/2020 15:39	WG1587929
1,2-Dichloroethane	0.108	U	0.108	0.500	1	12/07/2020 15:39	WG1587929
1,2-Dichloropropane	0.190	U	0.190	0.500	1	12/07/2020 15:39	WG1587929
1,4-Dichlorobenzene	0.121	U	0.121	0.500	1	12/07/2020 15:39	WG1587929
2-Butanone (MEK)	1.28	U	1.28	5.00	1	12/07/2020 15:39	WG1587929
2-Hexanone	0.757	U	0.757	5.00	1	12/07/2020 15:39	WG1587929
4-Methyl-2-pentanone (MIBK)	0.823	U	0.823	5.00	1	12/07/2020 15:39	WG1587929
Acetone	1.05	U	1.05	25.0	1	12/07/2020 15:39	WG1587929
Acrylonitrile	0.873	U	0.873	5.00	1	12/07/2020 15:39	WG1587929
Benzene	0.0896	U	0.0896	0.500	1	12/07/2020 15:39	WG1587929
Bromochloromethane	0.145	U	0.145	0.500	1	12/07/2020 15:39	WG1587929
Bromodichloromethane	0.0800	U	0.0800	0.500	1	12/07/2020 15:39	WG1587929
Bromoform	0.186	U	0.186	0.500	1	12/07/2020 15:39	WG1587929
Bromomethane	0.157	U	0.157	2.50	1	12/07/2020 15:39	WG1587929
Carbon disulfide	0.101	U	0.101	0.500	1	12/07/2020 15:39	WG1587929
Carbon tetrachloride	0.159	U	0.159	0.500	1	12/07/2020 15:39	WG1587929
Chlorobenzene	0.140	U	0.140	0.500	1	12/07/2020 15:39	WG1587929
Chloroethane	0.141	U	0.141	2.50	1	12/07/2020 15:39	WG1587929
Chloroform	0.0860	U	0.0860	0.500	1	12/07/2020 15:39	WG1587929
Chloromethane	0.153	U	0.153	1.25	1	12/07/2020 15:39	WG1587929
Dibromochloromethane	0.128	U	0.128	0.500	1	12/07/2020 15:39	WG1587929
Dibromomethane	0.117	U	0.117	0.500	1	12/07/2020 15:39	WG1587929
Ethylbenzene	0.158	U	0.158	0.500	1	12/07/2020 15:39	WG1587929
Iodomethane	0.377	U	0.377	10.0	1	12/07/2020 15:39	WG1587929
Methylene Chloride	1.07	U	1.07	2.50	1	12/07/2020 15:39	WG1587929
Styrene	0.117	U	0.117	0.500	1	12/07/2020 15:39	WG1587929
Tetrachloroethene	0.199	U	0.199	0.500	1	12/07/2020 15:39	WG1587929
Toluene	0.412	U	0.412	0.500	1	12/07/2020 15:39	WG1587929
Trichloroethene	0.153	U	0.153	0.500	1	12/07/2020 15:39	WG1587929
Trichlorofluoromethane	0.130	U	0.130	2.50	1	12/07/2020 15:39	WG1587929
Vinyl acetate	0.645	U	0.645	5.00	1	12/07/2020 15:39	WG1587929
Vinyl chloride	0.118	U	0.118	0.500	1	12/07/2020 15:39	WG1587929
Xylenes, Total	0.316	U	0.316	1.50	1	12/07/2020 15:39	WG1587929
cis-1,2-Dichloroethene	0.0933	U	0.0933	0.500	1	12/07/2020 15:39	WG1587929
cis-1,3-Dichloropropene	0.0976	U	0.0976	0.500	1	12/07/2020 15:39	WG1587929
trans-1,2-Dichloroethene	0.152	U	0.152	0.500	1	12/07/2020 15:39	WG1587929
trans-1,3-Dichloropropene	0.222	U	0.222	0.500	1	12/07/2020 15:39	WG1587929
trans-1,4-Dichloro-2-butene	0.257	U	0.257	5.00	1	12/07/2020 15:39	WG1587929
(S) 4-Bromofluorobenzene	108			77.0-126		12/07/2020 15:39	WG1587929
(S) Toluene-d8	112			80.0-120		12/07/2020 15:39	WG1587929
(S) 1,2-Dichloroethane-d4	93.6			70.0-130		12/07/2020 15:39	WG1587929

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3601995-1 12/08/20 17:42

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	2.82	U	2.82	10.0

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

L1291970-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1291970-01 12/08/20 17:42 • (DUP) R3601995-3 12/08/20 17:42

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	697	705	1	1.14		5

L1292359-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1292359-02 12/08/20 17:42 • (DUP) R3601995-4 12/08/20 17:42

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	11000	10800	1	1.16		5

Laboratory Control Sample (LCS)

(LCS) R3601995-2 12/08/20 17:42

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8200	93.2	77.4-123	

Method Blank (MB)

(MB) R3602265-1 12/09/20 06:00				
	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	2.82	U	2.82	10.0

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1291809-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1291809-02 12/09/20 06:00 • (DUP) R3602265-3 12/09/20 06:00						
	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	633	643	1	1.57		5

L1292373-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1292373-02 12/09/20 06:00 • (DUP) R3602265-4 12/09/20 06:00						
	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	1670	1690	1	0.833		5

Laboratory Control Sample (LCS)

(LCS) R3602265-2 12/09/20 06:00					
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8790	99.9	77.4-123	



Method Blank (MB)

(MB) R3602693-1 12/10/20 13:40

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Dissolved Solids	9.00	!	2.82	10.0

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

L1291962-26 Original Sample (OS) • Duplicate (DUP)

(OS) L1291962-26 12/10/20 13:40 • (DUP) R3602693-3 12/10/20 13:40

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	183	179	1	2.21		5

L1294757-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1294757-01 12/10/20 13:40 • (DUP) R3602693-4 12/10/20 13:40

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	457	453	1	0.879		5

Laboratory Control Sample (LCS)

(LCS) R3602693-2 12/10/20 13:40

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	8800	8750	99.4	77.4-123	



Method Blank (MB)

(MB) R3601509-1 12/04/20 01:15

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	0.306		0.0519	1.00
Nitrate	0.0319		0.0227	0.100

L1291962-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1291962-01 12/04/20 04:44 • (DUP) R3601509-5 12/04/20 04:57

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	5.27	5.52	1	4.57		20
Nitrate	0.389	0.417	1	6.80		20

Laboratory Control Sample (LCS)

(LCS) R3601509-2 12/04/20 01:28

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	40.7	102	90.0-110	
Nitrate	8.00	8.29	104	90.0-110	

L1291962-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-03 12/04/20 02:21 • (MS) R3601509-3 12/04/20 02:34 • (MSD) R3601509-4 12/04/20 02:47

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	50.0	4.52	54.9	55.1	101	101	1	80.0-120			0.366	20
Nitrate	5.00	0.377	5.56	5.57	104	104	1	80.0-120			0.182	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3601062-1 12/04/20 16:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Chloride	0.0519	U	0.0519	1.00
Nitrate	0.0227	U	0.0227	0.100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1291962-15 Original Sample (OS) • Duplicate (DUP)

(OS) L1291962-15 12/04/20 18:42 • (DUP) R3601062-4 12/04/20 18:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	2.00	1.97	1	1.48		20
Nitrate	0.585	0.583	1	0.360		20

L1292782-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1292782-05 12/04/20 23:13 • (DUP) R3601062-7 12/04/20 23:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1.52	1.53	1	0.727		20
Nitrate	0.0227	0.0227	1	0.000	U	20

Laboratory Control Sample (LCS)

(LCS) R3601062-3 12/04/20 17:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	40.0	39.2	97.9	90.0-110	
Nitrate	8.00	7.87	98.4	90.0-110	

L1291962-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-17 12/04/20 19:50 • (MS) R3601062-5 12/04/20 20:07 • (MSD) R3601062-6 12/04/20 20:24

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	50.0	1.70	52.2	52.8	101	102	1	80.0-120			1.11	20
Nitrate	5.00	0.612	5.68	5.74	101	103	1	80.0-120			0.983	20



L1292782-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1292782-06 12/05/20 04:20 • (MS) R3601062-8 12/05/20 00:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	50.0	112	64.0	0.000	1	80.0-120	⬇
Nitrate	5.00	0.0227	4.98	99.7	1	80.0-120	

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3600774-1 12/05/20 09:10

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	0.263		0.0519	1.00
Nitrate	0.0227	U	0.0227	0.100

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1292690-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1292690-01 12/05/20 17:33 • (DUP) R3600774-3 12/05/20 17:49

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	6.71	6.79	1	1.15		20
Nitrate	0.227	0.234	1	2.97		20

L1291962-24 Original Sample (OS) • Duplicate (DUP)

(OS) L1291962-24 12/05/20 22:51 • (DUP) R3600774-6 12/05/20 23:06

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	1.24	1.24	1	0.0304		20
Nitrate	0.134	0.133	1	0.597		20

Laboratory Control Sample (LCS)

(LCS) R3600774-2 12/05/20 09:26

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	39.2	98.1	90.0-110	
Nitrate	8.00	7.97	99.7	90.0-110	

L1292623-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1292623-01 12/05/20 18:19 • (MS) R3600774-4 12/05/20 18:35

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	50.0	6.13	55.6	98.9	1	80.0-120	
Nitrate	5.00	0.0227	5.10	100	1	80.0-120	



[L1291962-24,26](#)

L1291962-26 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-26 12/05/20 23:22 • (MS) R3600774-7 12/05/20 23:37 • (MSD) R3600774-8 12/05/20 23:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Chloride	50.0	14.8	64.9	65.5	100	101	1	80.0-120			0.876	20
Nitrate	5.00	4.45	9.47	9.54	101	102	1	80.0-120			0.658	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3604096-1 12/15/20 13:58

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	0.0519	U	0.0519	1.00

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

L1291962-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1291962-02 12/15/20 19:46 • (DUP) R3604096-3 12/15/20 20:02

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	11.7	11.8	1	0.983		20

L1294724-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1294724-07 12/16/20 03:18 • (DUP) R3604096-6 12/16/20 03:35

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	4.28	4.27	1	0.126		20

Laboratory Control Sample (LCS)

(LCS) R3604096-2 12/15/20 14:15

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	40.5	101	90.0-110	

L1291962-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-04 12/15/20 20:20 • (MS) R3604096-4 12/15/20 20:37 • (MSD) R3604096-5 12/15/20 20:55

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	50.0	21.5	69.5	69.2	96.1	95.4	1	80.0-120			0.469	20

L1294724-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1294724-07 12/16/20 03:18 • (MS) R3604096-7 12/16/20 03:52

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	50.0	4.28	55.5	102	1	80.0-120	



Method Blank (MB)

(MB) R3604547-1 12/17/20 01:37

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	0.0519	U	0.0519	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1291962-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1291962-14 12/17/20 02:12 • (DUP) R3604547-3 12/17/20 02:29

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	8.42	8.42	1	0.0475		20

L1295178-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1295178-01 12/17/20 06:50 • (DUP) R3604547-6 12/17/20 07:08

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	0.820	0.829	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3604547-2 12/17/20 01:54

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	40.4	101	90.0-110	

L1291962-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-16 12/17/20 02:47 • (MS) R3604547-4 12/17/20 03:04 • (MSD) R3604547-5 12/17/20 03:21

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	50.0	2.74	50.3	50.1	95.1	94.7	1	80.0-120			0.350	20

L1295178-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1295178-01 12/17/20 06:50 • (MS) R3604547-7 12/17/20 07:25

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	50.0	0.820	53.5	105	1	80.0-120	



Method Blank (MB)

(MB) R3605596-1 12/19/20 22:47

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Chloride	0.0951		0.0519	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1291962-25 Original Sample (OS) • Duplicate (DUP)

(OS) L1291962-25 12/19/20 23:21 • (DUP) R3605596-3 12/19/20 23:43

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	5.32	5.31	1	0.260		20

L1296003-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1296003-04 12/20/20 06:58 • (DUP) R3605596-7 12/20/20 07:15

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Chloride	734	738	10	0.456		20

Laboratory Control Sample (LCS)

(LCS) R3605596-2 12/19/20 23:04

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Chloride	40.0	39.6	99.0	90.0-110	

L1295789-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1295789-03 12/20/20 00:52 • (MS) R3605596-4 12/20/20 01:10 • (MSD) R3605596-5 12/20/20 01:27

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Chloride	50.0	5.12	55.2	55.7	100	101	1	80.0-120			0.848	20

L1295863-06 Original Sample (OS) • Matrix Spike (MS)

(OS) L1295863-06 12/20/20 04:21 • (MS) R3605596-6 12/20/20 04:39

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Chloride	50.0	40.6	89.7	98.2	1	80.0-120	



Method Blank (MB)

(MB) R3604210-1 12/15/20 20:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ammonia Nitrogen	0.0317	U	0.0317	0.100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1291962-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1291962-06 12/15/20 20:45 • (DUP) R3604210-5 12/15/20 20:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	0.0317	0.0317	1	0.000	U	10

L1294692-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1294692-02 12/15/20 21:28 • (DUP) R3604210-7 12/15/20 21:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	0.115	0.0840	1	0.000		10

Laboratory Control Sample (LCS)

(LCS) R3604210-2 12/15/20 20:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ammonia Nitrogen	7.50	7.97	106	90.0-110	

L1291962-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-05 12/15/20 20:40 • (MS) R3604210-3 12/15/20 20:41 • (MSD) R3604210-4 12/15/20 20:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	0.0317	5.45	5.55	109	111	1	90.0-110		J	1.65	10

L1294691-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1294691-02 12/15/20 21:23 • (MS) R3604210-6 12/15/20 21:25

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ammonia Nitrogen	5.00	0.152	5.68	110	1	90.0-110	



Method Blank (MB)

(MB) R3604420-1 12/17/20 00:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ammonia Nitrogen	0.0317	U	0.0317	0.100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1291962-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1291962-03 12/17/20 00:13 • (DUP) R3604420-5 12/17/20 00:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	0.0317	0.0317	1	0.000	U	10

L1294825-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1294825-01 12/17/20 00:52 • (DUP) R3604420-7 12/17/20 00:53

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	9.74	9.93	10	1.94		10

Laboratory Control Sample (LCS)

(LCS) R3604420-2 12/17/20 00:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ammonia Nitrogen	7.50	7.54	101	90.0-110	

L1291962-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-02 12/17/20 00:08 • (MS) R3604420-3 12/17/20 00:10 • (MSD) R3604420-4 12/17/20 00:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	5.00	0.0317	5.17	5.17	103	103	1	90.0-110			0.135	10

L1294794-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1294794-02 12/17/20 00:48 • (MS) R3604420-6 12/17/20 00:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ammonia Nitrogen	5.00	0.0317	4.96	99.2	1	90.0-110	



Method Blank (MB)

(MB) R3605269-1 12/18/20 15:48

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Ammonia Nitrogen	0.0317	U	0.0317	0.100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1291962-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1291962-14 12/18/20 15:56 • (DUP) R3605269-5 12/18/20 15:58

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Ammonia Nitrogen	0.0317	0.0317	1	0.000	U	10

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3605269-7 12/18/20 16:31

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte		mg/l		%		%
Ammonia Nitrogen		0.0317	1	0.000	U	10

Laboratory Control Sample (LCS)

(LCS) R3605269-2 12/18/20 15:49

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Ammonia Nitrogen	7.50	7.81	104	90.0-110	

L1291962-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-13 12/18/20 15:51 • (MS) R3605269-3 12/18/20 15:53 • (MSD) R3605269-4 12/18/20 15:54

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Ammonia Nitrogen	5.00	0.0317	5.29	5.29	106	106	1	90.0-110			0.0756	10

Original Sample (OS) • Matrix Spike (MS)

(OS) • (MS) R3605269-6 12/18/20 16:23

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l		mg/l	%		%	
Ammonia Nitrogen	5.00		5.29	106	1	90.0-110	



Method Blank (MB)

(MB) R3606065-1 12/21/20 18:47

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Ammonia Nitrogen	0.0317	<u>U</u>	0.0317	0.100

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1296404-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1296404-06 12/21/20 19:37 • (DUP) R3606065-6 12/21/20 19:39

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Ammonia Nitrogen	0.0317	0.0317	1	0.000	<u>U</u>	10

L1293017-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1293017-01 12/21/20 22:42 • (DUP) R3606065-9 12/21/20 22:44

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Ammonia Nitrogen	91.8	92.2	10	0.446		10

Laboratory Control Sample (LCS)

(LCS) R3606065-2 12/21/20 18:48

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Ammonia Nitrogen	7.50	7.61	101	90.0-110	

L1295974-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1295974-01 12/21/20 19:06 • (MS) R3606065-4 12/21/20 19:07 • (MSD) R3606065-5 12/21/20 19:09

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Ammonia Nitrogen	5.00	0.325	5.13	4.99	96.0	93.3	1	90.0-110			2.67	10

L1296404-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1296404-07 12/21/20 19:41 • (MS) R3606065-7 12/21/20 19:42

	Spike Amount	Original Result	MS Result	MS Rec.	Dilution	Rec. Limits	MS Qualifier
Analyte	mg/l	mg/l	mg/l	%		%	
Ammonia Nitrogen	5.00	0.238	5.22	99.6	1	90.0-110	



Method Blank (MB)

(MB) R3605116-1 12/18/20 11:23

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Mercury	0.0490	U	0.0490	0.200

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

Laboratory Control Sample (LCS)

(LCS) R3605116-2 12/18/20 11:25

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Mercury	3.00	3.43	114	80.0-120	

7Gl

8Al

9Sc

L1294918-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1294918-03 12/18/20 11:27 • (MS) R3605116-3 12/18/20 11:35 • (MSD) R3605116-4 12/18/20 11:37

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Mercury	3.00	0.0490	3.33	3.39	111	113	1	75.0-125			1.60	20



Method Blank (MB)

(MB) R3604071-1 12/16/20 10:18

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	ug/l		ug/l	ug/l
Mercury	0.0490	U	0.0490	0.200

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

Laboratory Control Sample (LCS)

(LCS) R3604071-2 12/16/20 10:20

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	ug/l	ug/l	%	%	
Mercury	3.00	3.03	101	80.0-120	

7Gl

8Al

9Sc

L1291962-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-13 12/16/20 10:22 • (MS) R3604071-3 12/16/20 10:24 • (MSD) R3604071-4 12/16/20 10:26

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Mercury	3.00	0.0490	3.13	3.13	104	104	1	75.0-125			0.240	20



Method Blank (MB)

(MB) R3603866-6 12/15/20 23:16

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	1.70	⌈	1.70	5.00
Cadmium	0.700	⌈	0.700	2.00
Chromium	1.40	⌈	1.40	10.0
Cobalt	2.30	⌈	2.30	10.0
Copper	5.30	⌈	5.30	10.0
Iron	14.1	⌈	14.1	100
Lead	1.90	⌈	1.90	5.00
Nickel	4.90	⌈	4.90	10.0
Selenium	7.40	⌈	7.40	10.0
Silver	2.80	⌈	2.80	5.00
Sodium	0.0304		0.0111	1.00
Vanadium	2.40	⌈	2.40	20.0
Zinc	37.9	⌈	5.90	50.0

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3603866-2 12/15/20 20:01

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	996	99.6	80.0-120	
Cadmium	1000	941	94.1	80.0-120	
Chromium	1000	954	95.4	80.0-120	
Cobalt	1000	974	97.4	80.0-120	
Copper	1000	980	98.0	80.0-120	
Iron	10000	10000	100	80.0-120	
Lead	1000	954	95.4	80.0-120	
Nickel	1000	961	96.1	80.0-120	
Selenium	1000	951	95.1	80.0-120	
Silver	200	191	95.4	80.0-120	
Sodium	10.0	9.81	98.1	80.0-120	
Vanadium	1000	992	99.2	80.0-120	
Zinc	1000	944	94.4	80.0-120	



L1291962-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-02 12/15/20 20:04 • (MS) R3603866-4 12/15/20 20:10 • (MSD) R3603866-5 12/15/20 20:12

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1000	31400	1050	1030	101	99.6	1	75.0-125			1.74	20
Cadmium	1000	261	971	954	97.1	95.4	1	75.0-125			1.82	20
Chromium	1000	908	987	948	98.7	94.8	1	75.0-125			4.02	20
Cobalt	1000	2.30	995	978	99.5	97.8	1	75.0-125			1.71	20
Copper	1000	2650	1010	966	101	96.6	1	75.0-125			4.14	20
Iron	10000	131000	10300	10000	102	99.1	1	75.0-125			2.50	20
Lead	1000	1.90	974	956	97.4	95.6	1	75.0-125			1.89	20
Nickel	1000	1120	985	965	98.5	96.5	1	75.0-125			2.04	20
Selenium	1000	1960	982	961	98.2	96.1	1	75.0-125			2.20	20
Silver	200	2.80	200	190	99.8	95.2	1	75.0-125			4.69	20
Sodium	10.0	4.77	14.6	14.3	97.9	94.8	1	75.0-125			2.17	20
Vanadium	1000	1780	1020	992	102	99.2	1	75.0-125			2.54	20
Zinc	1000	7160	969	948	96.1	94.1	1	75.0-125			2.14	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3604371-1 12/16/20 17:38

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	1.70	⌈	1.70	5.00
Cadmium	0.700	⌈	0.700	2.00
Chromium	1.40	⌈	1.40	10.0
Cobalt	2.30	⌈	2.30	10.0
Copper	5.30	⌈	5.30	10.0
Iron	14.1	⌈	14.1	100
Lead	1.90	⌈	1.90	5.00
Nickel	4.90	⌈	4.90	10.0
Selenium	7.40	⌈	7.40	10.0
Silver	2.80	⌈	2.80	5.00
Sodium	0.123		0.0111	1.00
Vanadium	2.40	⌈	2.40	20.0
Zinc	5.90	⌈	5.90	50.0

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3604371-2 12/16/20 17:40

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	993	99.3	80.0-120	
Cadmium	1000	941	94.1	80.0-120	
Chromium	1000	954	95.4	80.0-120	
Cobalt	1000	978	97.8	80.0-120	
Copper	1000	962	96.2	80.0-120	
Iron	10000	9890	98.9	80.0-120	
Lead	1000	959	95.9	80.0-120	
Nickel	1000	968	96.8	80.0-120	
Selenium	1000	955	95.5	80.0-120	
Silver	200	188	94.2	80.0-120	
Sodium	10.0	9.89	98.9	80.0-120	
Vanadium	1000	991	99.1	80.0-120	
Zinc	1000	958	95.8	80.0-120	



L1295377-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1295377-03 12/16/20 17:43 • (MS) R3604371-4 12/16/20 17:48 • (MSD) R3604371-5 12/16/20 17:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1000	77.6	1070	1070	98.9	98.8	1	75.0-125			0.0605	20
Cadmium	1000	0.700	942	946	94.2	94.6	1	75.0-125			0.334	20
Chromium	1000	1.40	956	982	95.6	98.2	1	75.0-125			2.75	20
Cobalt	1000	18.1	995	1000	97.7	98.2	1	75.0-125			0.439	20
Copper	1000	5.30	962	996	96.2	99.6	1	75.0-125			3.48	20
Iron	10000	13900	24800	24800	109	109	1	75.0-125			0.0580	20
Lead	1000	2.10	955	957	95.5	95.7	1	75.0-125			0.161	20
Nickel	1000	11.5	978	980	96.7	96.9	1	75.0-125			0.243	20
Selenium	1000	7.40	974	970	97.4	97.0	1	75.0-125			0.439	20
Silver	200	2.80	189	194	94.4	97.1	1	75.0-125			2.77	20
Sodium	10.0	18.7	28.3	28.5	96.1	97.2	1	75.0-125			0.400	20
Vanadium	1000	2.40	991	985	99.1	98.5	1	75.0-125			0.659	20
Zinc	1000	15.4	962	969	94.6	95.4	1	75.0-125			0.786	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3604915-1 12/17/20 20:55

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	1.70	U	1.70	5.00
Cadmium	0.700	U	0.700	2.00
Chromium	1.40	U	1.40	10.0
Cobalt	2.30	U	2.30	10.0
Copper	5.30	U	5.30	10.0
Iron	14.1	U	14.1	100
Lead	1.90	U	1.90	5.00
Nickel	4.90	U	4.90	10.0
Selenium	7.40	U	7.40	10.0
Silver	2.80	U	2.80	5.00
Sodium	0.0389		0.0111	1.00
Vanadium	2.40	U	2.40	20.0
Zinc	9.98	U	5.90	50.0

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3604915-2 12/17/20 20:57

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	940	94.0	80.0-120	
Cadmium	1000	913	91.3	80.0-120	
Chromium	1000	918	91.8	80.0-120	
Cobalt	1000	949	94.9	80.0-120	
Copper	1000	955	95.5	80.0-120	
Iron	10000	9630	96.3	80.0-120	
Lead	1000	938	93.8	80.0-120	
Nickel	1000	948	94.8	80.0-120	
Selenium	1000	924	92.4	80.0-120	
Silver	200	182	91.1	80.0-120	
Sodium	10.0	9.69	96.9	80.0-120	
Vanadium	1000	970	97.0	80.0-120	
Zinc	1000	928	92.8	80.0-120	



L1291962-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-16 12/17/20 21:00 • (MS) R3604915-4 12/17/20 21:06 • (MSD) R3604915-5 12/17/20 21:08

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1000	12400	943	959	93.0	94.7	1	75.0-125			1.73	20
Cadmium	1000	205	906	918	90.6	91.8	1	75.0-125			1.41	20
Chromium	1000	1190	908	924	90.8	92.4	1	75.0-125			1.74	20
Cobalt	1000	146	943	955	94.3	95.5	1	75.0-125			1.29	20
Copper	1000	3380	950	960	95.0	96.0	1	75.0-125			1.00	20
Iron	10000	189000	9820	9880	96.3	96.9	1	75.0-125			0.677	20
Lead	1000	1.90	935	947	93.5	94.7	1	75.0-125			1.28	20
Nickel	1000	2090	944	956	94.1	95.3	1	75.0-125			1.27	20
Selenium	1000	7.40	915	936	91.5	93.6	1	75.0-125			2.27	20
Silver	200	2.80	180	184	90.1	91.8	1	75.0-125			1.92	20
Sodium	10.0	1.67	11.2	11.3	94.9	95.9	1	75.0-125			0.903	20
Vanadium	1000	2.40	967	975	96.7	97.5	1	75.0-125			0.842	20
Zinc	1000	15000	934	944	91.9	92.9	1	75.0-125			1.02	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Method Blank (MB)

(MB) R3606028-6 12/21/20 20:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Barium	1.70	IC	1.70	5.00
Cadmium	0.700	IC	0.700	2.00
Chromium	1.40	IC	1.40	10.0
Cobalt	2.30	IC	2.30	10.0
Copper	5.30	IC	5.30	10.0
Iron	14.1	IC	14.1	100
Lead	1.90	IC	1.90	5.00
Nickel	4.90	IC	4.90	10.0
Selenium	7.40	IC	7.40	10.0
Silver	2.80	IC	2.80	5.00
Sodium	0.0111	IC	0.0111	1.00
Vanadium	2.40	IC	2.40	20.0
Zinc	5.90	IC	5.90	50.0

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3606028-7 12/21/20 20:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	1000	973	97.3	80.0-120	
Cadmium	1000	947	94.7	80.0-120	
Chromium	1000	974	97.4	80.0-120	
Cobalt	1000	971	97.1	80.0-120	
Copper	1000	952	95.2	80.0-120	
Iron	10000	9490	94.9	80.0-120	
Lead	1000	951	95.1	80.0-120	
Nickel	1000	982	98.2	80.0-120	
Selenium	1000	976	97.6	80.0-120	
Silver	200	187	93.7	80.0-120	
Sodium	10.0	9.35	93.5	80.0-120	
Vanadium	1000	993	99.3	80.0-120	
Zinc	1000	975	97.5	80.0-120	



L1291962-24,25,26

L1291962-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-25 12/21/20 20:40 • (MS) R3606028-9 12/21/20 20:46 • (MSD) R3606028-10 12/21/20 20:49

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	1000	13500	994	991	98.1	97.7	1	75.0-125			0.349	20
Cadmium	1000	0.700	961	954	96.1	95.4	1	75.0-125			0.651	20
Chromium	1000	2620	982	964	97.9	96.1	1	75.0-125			1.88	20
Cobalt	1000	2.30	983	978	98.3	97.8	1	75.0-125			0.489	20
Copper	1000	2620	959	945	95.9	94.5	1	75.0-125			1.44	20
Iron	10000	359000	10000	9880	96.4	95.2	1	75.0-125			1.22	20
Lead	1000	1.90	962	957	96.2	95.7	1	75.0-125			0.475	20
Nickel	1000	897	992	990	99.2	99.0	1	75.0-125			0.216	20
Selenium	1000	7.40	984	978	98.4	97.8	1	75.0-125			0.648	20
Silver	200	22.8	189	186	94.5	93.0	1	75.0-125			1.56	20
Sodium	10.0	4.56	13.9	13.9	93.8	93.0	1	75.0-125			0.540	20
Vanadium	1000	625	1010	1010	101	101	1	75.0-125			0.168	20
Zinc	1000	22600	1000	994	98.0	97.1	1	75.0-125			0.955	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc



Method Blank (MB)

(MB) R3603314-1 12/14/20 12:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Antimony	0.754	U	0.754	2.00
Arsenic	0.250	U	0.250	2.00
Beryllium	0.120	U	0.120	2.00
Thallium	0.190	U	0.190	2.00

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3603314-2 12/14/20 13:46

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	50.0	58.1	116	80.0-120	
Arsenic	50.0	51.4	103	80.0-120	
Beryllium	50.0	48.9	97.8	80.0-120	
Thallium	50.0	48.2	96.4	80.0-120	

L1291962-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1291962-01 12/14/20 13:49 • (MS) R3603314-4 12/14/20 13:56 • (MSD) R3603314-5 12/14/20 13:59

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	0.754	59.1	58.4	118	117	1	75.0-125			1.18	20
Arsenic	50.0	113	47.2	48.0	94.4	96.1	1	75.0-125			1.75	20
Beryllium	50.0	80.4	49.0	49.4	98.0	98.7	1	75.0-125			0.680	20
Thallium	50.0	42.6	49.6	50.6	99.2	101	1	75.0-125			1.96	20



Method Blank (MB)

(MB) R3604178-1 12/16/20 13:42

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Antimony	0.754	U	0.754	2.00
Arsenic	0.250	U	0.250	2.00
Beryllium	0.120	U	0.120	2.00
Thallium	0.190	U	0.190	2.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Laboratory Control Sample (LCS)

(LCS) R3604178-2 12/16/20 13:45

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	50.0	49.6	99.2	80.0-120	
Arsenic	50.0	48.8	97.6	80.0-120	
Beryllium	50.0	48.3	96.7	80.0-120	
Thallium	50.0	44.5	89.1	80.0-120	

L1295360-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1295360-01 12/16/20 13:49 • (MS) R3604178-4 12/16/20 13:55 • (MSD) R3604178-5 12/16/20 13:58

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	0.754	50.1	49.2	100	98.4	1	75.0-125			1.81	20
Arsenic	50.0	1.41	50.5	49.7	98.2	96.6	1	75.0-125			1.62	20
Beryllium	50.0	0.120	47.5	48.6	94.9	97.2	1	75.0-125			2.39	20
Thallium	50.0	0.250	43.6	44.1	86.6	87.6	1	75.0-125			1.11	20



Method Blank (MB)

(MB) R3604462-1 12/17/20 00:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Antimony	0.754	U	0.754	2.00
Arsenic	0.250	U	0.250	2.00
Beryllium	0.120	U	0.120	2.00
Thallium	0.190	U	0.190	2.00

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3604462-2 12/17/20 00:06

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	50.0	48.3	96.6	80.0-120	
Arsenic	50.0	48.1	96.3	80.0-120	
Beryllium	50.0	49.8	99.6	80.0-120	
Thallium	50.0	47.7	95.3	80.0-120	

L1295688-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1295688-01 12/17/20 00:09 • (MS) R3604462-4 12/17/20 00:15 • (MSD) R3604462-5 12/17/20 00:19

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	0.754	48.1	48.7	96.2	97.4	1	75.0-125			1.17	20
Arsenic	50.0	0.250	47.8	48.3	95.3	96.2	1	75.0-125			0.991	20
Beryllium	50.0	0.120	48.6	51.8	97.2	104	1	75.0-125			6.31	20
Thallium	50.0	0.248	46.3	47.7	92.2	94.8	1	75.0-125			2.83	20



Method Blank (MB)

(MB) R3605272-1 12/18/20 16:35

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Antimony	0.754	U	0.754	2.00
Arsenic	0.250	U	0.250	2.00
Beryllium	0.120	U	0.120	2.00
Thallium	0.190	U	0.190	2.00

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS)

(LCS) R3605272-2 12/18/20 16:38

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	50.0	52.1	104	80.0-120	
Arsenic	50.0	50.1	100	80.0-120	
Beryllium	50.0	53.0	106	80.0-120	
Thallium	50.0	47.8	95.6	80.0-120	

L1296160-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1296160-07 12/18/20 16:41 • (MS) R3605272-4 12/18/20 16:48 • (MSD) R3605272-5 12/18/20 16:51

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Antimony	50.0	0.754	52.1	52.0	104	104	1	75.0-125			0.114	20
Arsenic	50.0	0.630	51.0	50.1	101	99.0	1	75.0-125			1.78	20
Beryllium	50.0	0.120	53.4	52.4	107	105	1	75.0-125			1.84	20
Thallium	50.0	0.216	51.1	51.4	102	102	1	75.0-125			0.632	20



Method Blank (MB)

(MB) R3601303-3 12/07/20 13:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
1,1,1,2-Tetrachloroethane	0.120	IC	0.120	0.500
1,1,1-Trichloroethane	0.0940	IC	0.0940	0.500
1,1,2,2-Tetrachloroethane	0.130	IC	0.130	0.500
1,1,2-Trichloroethane	0.0940	IC	0.0940	0.500
1,1-Dichloroethane	0.114	IC	0.114	0.500
1,1-Dichloroethene	0.188	IC	0.188	0.500
1,2,3-Trichloropropane	0.247	IC	0.247	2.50
1,2-Dichlorobenzene	0.101	IC	0.101	0.500
1,2-Dichloroethane	0.108	IC	0.108	0.500
1,2-Dichloropropane	0.190	IC	0.190	0.500
1,4-Dichlorobenzene	0.121	IC	0.121	0.500
2-Butanone (MEK)	1.28	IC	1.28	5.00
2-Hexanone	0.757	IC	0.757	5.00
4-Methyl-2-pentanone (MIBK)	0.823	IC	0.823	5.00
Acetone	1.05	IC	1.05	25.0
Acrylonitrile	0.873	IC	0.873	5.00
Benzene	0.0896	IC	0.0896	0.500
Bromochloromethane	0.145	IC	0.145	0.500
Bromodichloromethane	0.0800	IC	0.0800	0.500
Bromoform	0.186	IC	0.186	0.500
Bromomethane	0.157	IC	0.157	2.50
Carbon disulfide	0.101	IC	0.101	0.500
Carbon tetrachloride	0.159	IC	0.159	0.500
Chlorobenzene	0.140	IC	0.140	0.500
Chlorodibromomethane	0.128	IC	0.128	0.500
Chloroethane	0.141	IC	0.141	2.50
Chloroform	0.0860	IC	0.0860	0.500
Chloromethane	0.153	IC	0.153	1.25
cis-1,2-Dichloroethene	0.0933	IC	0.0933	0.500
cis-1,3-Dichloropropene	0.0976	IC	0.0976	0.500
Dibromomethane	0.117	IC	0.117	0.500
Ethylbenzene	0.158	IC	0.158	0.500
Iodomethane	0.377	IC	0.377	10.0
Methylene Chloride	1.07	IC	1.07	2.50
Styrene	0.117	IC	0.117	0.500
Tetrachloroethene	0.199	IC	0.199	0.500
Toluene	0.412	IC	0.412	0.500
trans-1,2-Dichloroethene	0.152	IC	0.152	0.500
trans-1,3-Dichloropropene	0.222	IC	0.222	0.500
trans-1,4-Dichloro-2-butene	0.257	IC	0.257	5.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Method Blank (MB)

(MB) R3601303-3 12/07/20 13:15

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Trichloroethene	0.153	⌋	0.153	0.500
Trichlorofluoromethane	0.130	⌋	0.130	2.50
Vinyl acetate	0.645	⌋	0.645	5.00
Vinyl chloride	0.118	⌋	0.118	0.500
Xylenes, Total	0.316	⌋	0.316	1.50
(S) 1,2-Dichloroethane-d4	92.9			70.0-130
(S) Toluene-d8	112			80.0-120
(S) 4-Bromofluorobenzene	110			77.0-126

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3601303-1 12/07/20 12:18 • (LCSD) R3601303-2 12/07/20 12:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	5.00	5.82	5.26	116	105	75.0-125			10.1	20
1,1,1-Trichloroethane	5.00	5.09	4.42	102	88.4	73.0-124			14.1	20
1,1,2,2-Tetrachloroethane	5.00	4.48	4.08	89.6	81.6	65.0-130			9.35	20
1,1,2-Trichloroethane	5.00	5.72	5.05	114	101	80.0-120			12.4	20
1,1-Dichloroethane	5.00	4.46	4.08	89.2	81.6	70.0-126			8.90	20
1,1-Dichloroethene	5.00	4.76	4.41	95.2	88.2	71.0-124			7.63	20
1,2,3-Trichloropropane	5.00	4.59	4.20	91.8	84.0	73.0-130			8.87	20
1,2-Dichlorobenzene	5.00	5.42	4.97	108	99.4	79.0-121			8.66	20
1,2-Dichloroethane	5.00	4.40	3.94	88.0	78.8	70.0-128			11.0	20
1,2-Dichloropropane	5.00	4.55	4.37	91.0	87.4	77.0-125			4.04	20
1,4-Dichlorobenzene	5.00	5.13	4.75	103	95.0	79.0-120			7.69	20
2-Butanone (MEK)	25.0	20.1	19.8	80.4	79.2	44.0-160			1.50	20
2-Hexanone	25.0	22.7	20.9	90.8	83.6	67.0-149			8.26	20
4-Methyl-2-pentanone (MIBK)	25.0	20.2	18.0	80.8	72.0	68.0-142			11.5	20
Acetone	25.0	24.6	28.0	98.4	112	19.0-160			12.9	27
Acrylonitrile	25.0	24.6	21.8	98.4	87.2	55.0-149			12.1	20
Benzene	5.00	5.02	4.66	100	93.2	70.0-123			7.44	20
Bromochloromethane	5.00	5.27	4.72	105	94.4	76.0-122			11.0	20
Bromodichloromethane	5.00	4.61	4.20	92.2	84.0	75.0-120			9.31	20
Bromoform	5.00	5.97	5.46	119	109	68.0-132			8.92	20
Bromomethane	5.00	4.89	4.00	97.8	80.0	10.0-160			20.0	25
Carbon disulfide	5.00	4.94	4.48	98.8	89.6	61.0-128			9.77	20
Carbon tetrachloride	5.00	4.63	4.16	92.6	83.2	68.0-126			10.7	20
Chlorobenzene	5.00	5.91	5.32	118	106	80.0-121			10.5	20
Chlorodibromomethane	5.00	5.27	4.73	105	94.6	77.0-125			10.8	20



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3601303-1 12/07/20 12:18 • (LCSD) R3601303-2 12/07/20 12:37

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Chloroethane	5.00	4.85	4.33	97.0	86.6	47.0-150			11.3	20
Chloroform	5.00	5.06	4.64	101	92.8	73.0-120			8.66	20
Chloromethane	5.00	4.58	4.03	91.6	80.6	41.0-142			12.8	20
cis-1,2-Dichloroethene	5.00	5.33	4.78	107	95.6	73.0-120			10.9	20
cis-1,3-Dichloropropene	5.00	4.51	3.96	90.2	79.2	80.0-123		J	13.0	20
Dibromomethane	5.00	4.82	4.71	96.4	94.2	80.0-120			2.31	20
Ethylbenzene	5.00	5.70	5.30	114	106	79.0-123			7.27	20
Iodomethane	25.0	23.5	20.1	94.0	80.4	33.0-147			15.6	26
Methylene Chloride	5.00	4.72	4.14	94.4	82.8	67.0-120			13.1	20
Styrene	5.00	5.67	5.05	113	101	73.0-130			11.6	20
Tetrachloroethene	5.00	5.76	5.27	115	105	72.0-132			8.88	20
Toluene	5.00	5.24	4.73	105	94.6	79.0-120			10.2	20
trans-1,2-Dichloroethene	5.00	4.94	4.53	98.8	90.6	73.0-120			8.66	20
trans-1,3-Dichloropropene	5.00	4.92	4.31	98.4	86.2	78.0-124			13.2	20
trans-1,4-Dichloro-2-butene	5.00	1.32	1.26	26.4	25.2	33.0-144	J	J	4.65	20
Trichloroethene	5.00	5.55	5.12	111	102	78.0-124			8.06	20
Trichlorofluoromethane	5.00	4.56	3.87	91.2	77.4	59.0-147			16.4	20
Vinyl acetate	25.0	18.8	17.0	75.2	68.0	11.0-160			10.1	20
Vinyl chloride	5.00	4.72	4.15	94.4	83.0	67.0-131			12.9	20
Xylenes, Total	15.0	17.4	15.6	116	104	79.0-123			10.9	20
(S) 1,2-Dichloroethane-d4				95.8	93.6	70.0-130				
(S) Toluene-d8				110	111	80.0-120				
(S) 4-Bromofluorobenzene				108	109	77.0-126				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Method Blank (MB)

(MB) R3600854-1 12/05/20 13:25

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylene Dibromide	0.00240	U	0.00240	0.0100
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

L1291083-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1291083-04 12/05/20 14:15 • (DUP) R3600854-3 12/05/20 14:02

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	0.00240	0.00240	1	0.000	U	20
1,2-Dibromo-3-Chloropropane	0.00430	0.00430	1	0.000	U	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3600854-4 12/05/20 16:21 • (LCSD) R3600854-5 12/05/20 18:58

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.250	0.257	0.258	103	103	60.0-140			0.388	20
1,2-Dibromo-3-Chloropropane	0.250	0.230	0.235	92.0	94.0	60.0-140			2.15	20

L1291083-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1291083-05 12/05/20 13:50 • (MS) R3600854-2 12/05/20 13:38

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.100	0.00240	0.103	103	1	64.0-159	
1,2-Dibromo-3-Chloropropane	0.100	0.00430	0.0908	90.8	1	72.0-148	

Method Blank (MB)

(MB) R3602756-1 12/11/20 21:14

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylene Dibromide	0.00240	U	0.00240	0.0100
1,2-Dibromo-3-Chloropropane	0.00430	U	0.00430	0.0200

L1291962-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1291962-13 12/11/20 22:05 • (DUP) R3602756-3 12/11/20 21:52

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ethylene Dibromide	0.00240	0.00240	1	0.000	U	20
1,2-Dibromo-3-Chloropropane	0.00430	0.00430	1	0.000	U	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3602756-4 12/12/20 00:13 • (LCSD) R3602756-5 12/12/20 02:34

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylene Dibromide	0.250	0.266	0.268	106	107	60.0-140			0.749	20
1,2-Dibromo-3-Chloropropane	0.250	0.224	0.235	89.6	94.0	60.0-140			4.79	20

L1291962-15 Original Sample (OS) • Matrix Spike (MS)

(OS) L1291962-15 12/11/20 21:39 • (MS) R3602756-2 12/11/20 21:27

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ethylene Dibromide	0.100	0.00240	0.108	108	1	64.0-159	
1,2-Dibromo-3-Chloropropane	0.100	0.00430	0.0874	87.4	1	72.0-148	

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J	The value is outside laboratory established criteria.
U	Indicates the compound was analyzed for but not detected above the method detection limit.
V	Indicates the analyte was detected in both the sample and method blank.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



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* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

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Colorado	TN00003	New York	11742
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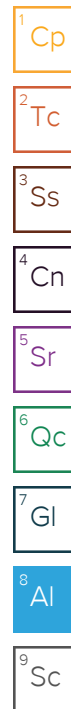
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¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable



Vista

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Phone: 615-758-5858
Phone: 800-767-5858
Fax: 615-758-5855Report to:
Eric ParkerEmail To:
eparker1@wm.com;efoeller@wm.com;kguilbeaProject Description:
Vista-Semiannual GW Parameters June DecCity/State
Collected:Please Circle:
PT MT CT ET

Phone: 904-562-9755

Client Project #
200Lab Project #
WMVISFL-00003

Collected by (print):

DANNY ARMOUR

Site/Facility ID #
FL26

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

☐ Same Day ☐ Five Day
☐ Next Day ☐ 5 Day (Rad Only)
☐ Two Day ☐ 10 Day (Rad Only)
☐ Three Day

Date Results Needed

Immediately
Packed on Ice N Y XNo.
of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time		CHLORIDE 125mlHDPE-NoPres	CHLORIDE,NITRATE 125mlHDPE-NoPres	Metals - NAACP only 250mlHDPE-HNO3	Metals 250mlHDPE-HNO3	NH3 250mlHDPE-H2SO4	SV8011 40mlClr-NaThio	TDS 250mlHDPE-NoPres	V8260LL - Trip Bik 40mlAmb-HCl-Bik	V8260LL 40mlAmb-HCl		
MW-1A		GW				10		X		X	X	X	X		X		
MW-1B		GW				3	X		X		X						
MW-2AR		GW				10		X		X	X	X	X		X		
MW-2B		GW				3	X		X		X						
MW-3A		GW		12-2-20	1320	10		X		X	X	X	X		X		-01
MW-3B		GW		12-2-20	1242	3	X		X		X						-02
MW-4A		GW				10		X		X	X	X	X		X		
MW-4B		GW				3	X		X		X						
MW-5A		GW				10		X		X	X	X	X		X		
MW-5B		GW				3	X		X		X						

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: Nitrate = 48 hour holding time.

Sample receiving: samples may be received over multiple days and must be logged to same SDG.

pH Temp Flow Other Samples returned via:
UPS FedEx Courier

Tracking # 9348 1605 8764-8753

Sample Receipt Checklist:

COC Seal Present/Intact: NP X N
 COC Signed/Accurate: N X N
 Bottles arrive intact: N X N
 Correct bottles used: N X N
 Sufficient volume sent: N X N
 If Applicable
 VCA, Peco Headspace: N X N
 Preservation Correct/Checked: N X N
 RAD Screen <0.5 mR/hr: N X N

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Trip Blank Received: Yes No NCF/ Mech
TBR

Relinquished by: (Signature)

Date:

Time:

Received by: (Signature)

Temp °C Bottles Received

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date: 12/3/20 Time: 10⁰⁰

Hold:

Condition:
NCF DW

Vista

5110 US Hwy 301 South
Baldwin, FL 32234

Billing Information:

jh1116@wm.com
PO BOX 6700
Portland, OR 97228-6700Pres
ChkReport to:
Eric ParkerEmail To:
eparker1@wm.com;efoeller@wm.com;kguilbeaProject Description:
Vista-Semiannual GW Parameters June DecCity/State
Collected: FLPlease Circle:
PT MT CT ET

Phone: 904-562-9755

Client Project #
200Lab Project #
WMVISFL-00003

Collected by (print):

DANNY ARMOUR

Site/Facility ID #
FL26

P.O. #

Collected by (signature):

DC

Rush? (Lab MUST Be Notified)

☐ Same Day ☐ Five Day
☐ Next Day ☐ 5 Day (Rad Only)
☐ Two Day ☐ 10 Day (Rad Only)
☐ Three Day

Quote #

Date Results Needed

Immediately

Packed on ice N ☐ Y ☒ XNo.
of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time
MW-6AR		GW			10
MW-6BR		GW			3
MW-7A		GW			10
MW-7B		GW			3
MW-8R		GW			10
MW-9A	G	GW		12-2	1038
MW-9B	G	GW		12-2	1001
MW-11A	G	GW		12-2	0927
MW-11B	G	GW		12-2	0851
MW-14A	G	GW		12-2	1204

* Matrix:

SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - Waste Water
 DW - Drinking Water
 OT - Other

Remarks: Nitrate = 48 hour holding time.

Sample receiving: samples may be received over multiple days and must be logged to same SDG.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:

☐ UPS ☐ FedEx ☐ Courier

Tracking #

Relinquished by: (Signature)

Date:

11-19-20

Time:

10:30

Received by: (Signature)

DC

Trip Blank Received: ☒ Yes ☐ No

Bottles Received: 2

Relinquished by: (Signature)

Date:

12-2-20

Time:

1700

Received by: (Signature)

DC

Bottles Received: 72

Relinquished by: (Signature)

Date:

12/3/20

Time:

10:00

Received for lab by: (Signature)

DC

Date:

12/3/20

Time:

10:00

Hold:

NCF 1.0

Chain of Custody Page ___ of ___



12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-757-5859
 Fax: 615-758-5859



SDG # C1291562

Table #

Acctnum: WMVISFL

Template: T177993

Prelogin: P811133

PM: 616 - Stacy Kennedy

PB: TB 11-19-20

Shipped Via: FedEx Ground

Remarks:

Sample # (lab only)

Vista						Billing Information:		Pres Chk						
5110 US Hwy 301 South Baldwin, FL 32234						jhil16@wm.com PO BOX 6700 Portland, OR 97228-6700								
Report to: Eric Parker						Email To: eparker1@wm.com;efoeller@wm.com;kguilbea								
Project Description: Vista-Semiannual GW Parameters June Dec				City/State Collected:		Please Circle: PT MT CT ET								
Phone: 904-562-9755		Client Project # 200		Lab Project # WMVISFL-00003										
Collected by (print): DANIEL ARMOUR		Site/Facility ID # FL26		P.O. #										
Collected by (signature): 		Rush? (Lab MUST Be Notified) ____ Same Day ____ Five Day ____ Next Day ____ 5 Day (Rad Only) ____ Two Day ____ 10 Day (Rad Only) ____ Three Day		Quote #										
Immediately Packed on Ice N Y X				Date Results Needed		No. of Cntrs								
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time									
MW-14B	G	GW	12-2	1122	3	X		X	X					-08
MW-15A	G	GW	12-2	0816	10		X		X	X	X	X	X	-09
MW-15B	G	GW	12-2	0737	3	X		X		X				-10
Equipment Blank	G	GW	12-2	1355	7		X		X	X	X	X		-11
TRIP BLANK	G	GW	12-2	-	2								X	-12
		GW			10		X		X	X	X	X	X	
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other	Remarks:Nitrate = 48 hour holding time. Sample receiving: samples may be received over multiple days and must be logged to same SDG.					pH _____ Temp _____		Flow _____ Other _____						
Samples returned via: UPS FedEx Courier	Tracking #													
Relinquished by : (Signature)	Date: 11-19-20	Time: 10:30	Received by: (Signature)			Trip Blank Received: Yes / No 2 Yes / MeqL TBR			If preservation required by Login Date/Time					
Relinquished by : (Signature)	Date: 12-2-20	Time: 1700	Received by: (Signature)			Temp °C Bottles Received: 12.35 72								
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)			Date: 12/3/20 Time: 1000			Hold:			Condition: NCF / OK		

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Evaluation

12065 Lebanon Rd
Memphis, TN 37122
Phone: 615-758-5838
Phone: 800-767-5859
Fax: 615-758-5859

SDG # U291962

Table #

Account: WMVISFL
Template: T177993
Prologin: P811133
PM: 616 Stacy Kennedy
PB: TB 11-19-20
Shipped Via: FedEx Ground

Remarks Sample # (lab only)

Vista

5110 US Hwy 301 South
Baldwin, FL 32234

Billing Information:

jhill16@wm.com
PO BOX 6700
Portland, OR 97228-6700Pres
Chk

Analysis / Container / Preservation

Chain of Custody Page 1 of 1



Report to:

Eric Parker

Email To:

eparker1@wm.com;efoeller@wm.com;kgulbea

Project Description:

Vista-Semiannual GW Parameters June Dec

City/State

Collected:

Please Circle:

PT MT CT ET

Phone: 904-562-9755

Client Project

200

Lab Project

WMVISFL-00003

Collected by (print):

DANNY ARMOUR

Site/Facility ID

FL26

P.O.

Collected by (signature):

[Signature]

Rush? (Lab MUST Be Notified)

Same Day Five Day

Next Day 5 Day (Rad Only)

Two Day 10 Day (Rad Only)

Three Day

Quote

Date Results Needed

Immediately
Packed on Ice N Y XNo
of
Ents

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time		CHLORIDE 125mlHDPE-NoPres	CHLORIDE,NITRATE 125mlHDPE-NoPres	Metals - NAICP only 250mlHDPE-HNO3	Metals 250mlHDPE-HNO3	NH3 250mlHDPE-H2SO4	SV8011 40mlCir-NaThio	TDS 250mlHDPE-NoPres	V8260LL - Trip Blk 40mlAmb-HCl-Bik	V8260LL 40mlAmb-HCl		
MW-1A	G	GW		12-3	1133	10		X		X	X	X	X		X		-13
MW-1B	G	GW		12-3	1101	3	X		X		X						-14
MW-2AR		GW				10		X		X	X	X	X		X		
MW-2B		GW				3	X		X		X						
MW-3A		GW				10		X		X	X	X	X		X		
MW-3B		GW				3	X		X		X						
MW-4A	G	GW		12-3	0800	10	X		X	X	X	X	X		X		-15
MW-4B	G	GW		12-3	0722	3	X		X		X						-16
MW-5A	G	GW		12-3	0911	10		X		X	X	X	X		X		-17
MW-5B	G	GW		12-3	0834	3	X		X		X						-18

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Waste Water
DW - Drinking Water
OT - Other

Remarks: Nitrate = 48 hour holding time.

Sample receiving: samples may be received over multiple days and must be logged to same

SDG.

pH Temp

Flow Other

Samples returned via:

UPS FedEx Courier

Tracking

9348 1005 8725

Sample Receipt Checklist

CCC Seal Present/Intact: ☒ Y ☐ N
CCC Signed/Accurate: ☒ Y ☐ N
Bottles Arrive Intact: ☒ Y ☐ N
Correct bottles used: ☒ Y ☐ N
Sufficient volume sent: ☒ Y ☐ N
If Applicable
VSA Baco Headspace: ☒ Y ☐ N
Preservation Correct/Checked: ☒ Y ☐ N
AND Screen <0.5 µm/hic: ☒ Y ☐ N

Relinquished by: (Signature)

[Signature]

Date:

11-19-20

Time:

10:30

Received by: (Signature)

[Signature]

Trip Blank Received: Yes/No

HCl/MeOH
TBA

Relinquished by: (Signature)

[Signature]

Date:

12-3-20

Time:

1700

Received by: (Signature)

[Signature]

Bottles Received:

15-3-13 123

If preservation required by Login: Date/Time

Relinquished by: (Signature)

[Signature]

Date:

12-4-20

Time:

0930

Received for lab by: (Signature)

[Signature]

Date:

12-4-20

Time:

0930

Hold:

[Signature]

Condition:

NGF OK

Vista

5110 US Hwy 301 South
Baldwin, FL 32234

Report to:
Eric Parker

Project Description:
Vista-Semiannual GW Parameters June Dec

Phone: 904-562-9755

Client Project #
200

Lab Project #
WMVISFL-00003

Collected by (print):

DANNY ARMOUR

Site/Facility ID #
FL26

P.O. #

Collected by (signature):

[Signature]

Rush? (Lab MUST Be Notified)

Same Day Five Day
Next Day 5 Day (Rad Only)
Two Day 10 Day (Rad Only)
Three Day

Quote #

Date Results Needed

Immediately
Packed on Ice N Y X

No.
of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
MW-6AR	G	GW		12-3	1255	10
MW-6BR	G	GW		12-3	1212	3
MW-7A	G	GW		12-3	1027	10
MW-7B	G	GW		12-3	0944	3
MW-8R		GW				10
MW-9A		GW				10
MW-9B		GW				3
MW-11A		GW				10
MW-11B		GW				3
MW-14A		GW				10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Waste Water
DW - Drinking Water
OT - Other

Remarks: Nitrate = 48 hour holding time.

Sample receiving: samples may be received over multiple days and must be logged to same SDG.

Samples returned via
UPS FedEx Courier

Tracking #

pH Temp

Flow Other

Sample Receipt Checklist

COC Seal Present/Intact: 11/19/20
COC Signed/Accurate: 11/19/20
Bottles arrive intact: 11/19/20
Correct bottling used: 11/19/20
Sufficient volume sent: 11/19/20
If Applicable
VCA Zero Headspace: 11/19/20
Preservation Correct/Checked: 11/19/20
RAD Screen <0.5 mB/hr: 11/19/20

Relinquished by: (Signature)

Date:

11-19-20

Time:

10:30

Received by: (Signature)

[Signature]

Trip Blank Received: Yes/No

Yes

Bottles Received

15-3-13 63

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date:

12-3-20

Time:

1700

Received for lab by: (Signature)

[Signature]

Date:

12-4-20

Time:

0930

Hold:

OK

Condition:

OK

Billing Information:

jhill16@wm.com
PO BOX 6700
Portland, OR 97228-6700

Prox
Chk

Email To:
eparker1@wm.com;efoeller@wm.com;kguilbea

City/State
Collected:

Please Circle:
PT MT CT ET

Analysis / Container / Preservation

Chain of Custody Page ___ of ___



13065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5858
Fax: 615-758-5859



SDG # C129K67

Table #

Acctnum: WMVISFL

Template: T177993

Prelogin: PS11133

PM: 616 - Stacy Kennedy

PB: 76 11-19-20

Shipped Via: FedEx Ground

Remarks

Sample # (lab only)

-19

-20

-21

-22

Cole Medley



Login #: L1291962	Client: WMVISFL	Date: 12/04/20	Evaluated by: Cole Medley
-------------------	-----------------	----------------	---------------------------

Non-Conformance (check applicable items)

Sample Integrity	Chain of Custody Clarification	If Broken Container:
Parameter(s) past holding time	Login Clarification Needed	
Temperature not in range	Chain of custody is incomplete	Insufficient packing material around container
Improper container type	Please specify Metals requested.	Insufficient packing material inside cooler
pH not in range.	Please specify TCLP requested.	Improper handling by carrier (FedEx / UPS / Courier)
Insufficient sample volume.	Received additional samples not listed on coc.	Sample was frozen
Sample is biphasic.	Sample ids on containers do not match ids on coc	Container lid not intact
Vials received with headspace.	Trip Blank not received.	If no Chain of Custody:
Broken container	Client did not "X" analysis.	Received by:
Broken container:	Chain of Custody is missing	Date/Time:
Sufficient sample remains		Temp./Cont. Rec./pH:
		Carrier:
		Tracking#

Login Comments: Received 2 40mlAmb-HCl broken on ID: MW-4A

Client informed by:	Call	Email	Voice Mail	Date:	Time:
TSR Initials:	Client Contact:				

Login Instructions:

Vista 5110 US Hwy 301 South Baldwin, FL 32234		Billing Information: jhill16@wm.com PO BOX 6700 Portland, OR 97228-6700		Pres Chk		Analysis / Container / Preservative										Chain of Custody Page of			
		Report to: Eric Parker		Email To: eparker1@wm.com; efoeller@wm.com; kguilbea		Project Description: Vista-Semiannual GW Parameters June Dec City/State Collected: Please Circle: PT MT CT ET													
Phone: 904-562-9755		Client Project # 200		Lab Project # WMVISFL-00003		CHLORIDE 125mHDPE-NoPres CHLORIDE, NITRATE 125mHDPE-NoPres Metals - NAICP only 250mHDPE-HNO3 Metals 250mHDPE-HNO3 NH3 250mHDPE-H2SO4 SV8011 40mClr-NaThio TDS 250mHDPE-NoPres V8260LL - Trip Blk 40mAmb-HCl-Blk V8260LL 40mAmb-HCl										12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Fax: 615-758-5859			
Collected by (print): Danny Armour		Site/Facility ID # FL26		P.O. #												D156			
Collected by (signature): 		Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Two Day ☐ 10 Day (Rad Only) ☐ Three Day		Quote #												Acctnum: WMVISFL Template: T177993 Prelogin: P811133		PM: 616 - Stacy Kennedy PS: 76 11-19-20	
Immediately Packed on Ice N ☐ Y ☒		Date Results Needed		No. of Cntrs												Shipped Via: FedEx Ground		Remarks Sample # (lab only)	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time														
MW-1A		GW				10		X		X	X	X	X		X				
MW-1B		GW				3	X		X		X								
MW-2AR	G	GW		12-4	0838	10		X		X	X	X	X		X		-24		
MW-2B	G	GW		12-4	0801	3	X		X		X						-25		
MW-3A		GW				10		X		X	X	X	X		X				
MW-3B		GW				3	X		X		X								
MW-4A		GW				10		X		X	X	X	X		X				
MW-4B		GW				3	X		X		X								
MW-5A		GW				10		X		X	X	X	X		X				
MW-5B		GW				3	X		X		X								

* Matrix: SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: Nitrate = 48 hour holding time.
 Sample receiving: samples may be received over multiple days and must be logged to same SDG.

pH _____ Temp _____
 Flow _____ Other _____

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier Tracking # _____

Relinquished by: (Signature) Date: 11-19-20 Time: 10:30 Received by: (Signature)

Relinquished by: (Signature) Date: 12-4-20 Time: 1600 Received by: (Signature) _____

Relinquished by: (Signature) _____ Date: _____ Time: _____ Received for lab by: (Signature) _____

Sample Receipt Checklist

CCC Seal Present/Intact: ☒ Y ☐ N

CCC Signed/Authenticated: ☒ Y ☐ N

Bottles arrive intact: ☒ Y ☐ N

Correct bottles used: ☒ Y ☐ N

Sufficient volume sent: ☒ Y ☐ N

If Applicable:

VIA Invo./Headpaper: ☒ Y ☐ N

Preservation Correct/Checked: ☒ Y ☐ N

B&B Screen 40.5 mR/hr: ☒ Y ☐ N

If preservation required by Login: Date/Time _____

Hold: _____ Condition: NCF ☒ OK

Vista 5110 US Hwy 301 South Baldwin, FL 32234		Billing Information: jhill16@wm.com PO BOX 6700 Portland, OR 97228-6700		Pres Chk		Analysis / Contaminant / Preservative CLCLCL										 Face Analytical National Center for Testing & Evaluation 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859					
		Report to: Eric Parker		Email To: eparker1@wm.com; efoeller@wm.com; kgullbea		Chain of Custody Page of															
Project Description: Vista-Semiannual GW Parameters June Dec				City/State Collected:		Please Circle: PT MT CT ET												SDG # <u>6175462</u>			
Phone: 904-562-9755		Client Project # 200		Lab Project # WMVISFL-00003												Table #					
Collected by (print): DANNY ARMOUR		Site/Facility ID # FL26		P.O. #												Account: WMVISFL					
Collected by (signature): 		Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Date Results Needed		Quote #												Template: T177993					
Immediately Packed on ice N <u>Y</u> X																Prelogin: P811133					
																PM: 616 - Stacy Kennedy					
																PB: 76 11-19-20					
																Shipped Via: FedEX Ground					
																Remarks Sample # (lab only)					
Sample ID		Comp/Grab	Matrix *	Depth	Date	Time	No. of Chtrs	CHLORIDE 125mHDPE-NoPres	CHLORIDE, NITRATE 125mHDPE-NoPres	Metals - NAICP only 250mHDPE-HNO3	Metals 250mHDPE-HNO3	NH3 250mHDPE-H2SO4	SV8011 40mICr-NaThio	TDS 250mHDPE-NoPres	V8260LL - Trip Blk 40mIAmb-HCl-Blk	V8260LL 40mIAmb-HCl					
MW-6AR			GW				10		X		X	X	X	X		X					
MW-6BR			GW				3	X		X		X									
MW-7A			GW				10		X		X	X	X	X		X					
MW-7B			GW				3	X		X		X									
MW-8R		G	GW		12-4	0722	10		X		X	X	X	X		X	-24				
MW-9A			GW				10		X		X	X	X	X		X					
MW-9B			GW				3	X		X		X									
MW-11A			GW				10		X		X	X	X	X		X					
MW-11B			GW				3	X		X		X									
MW-14A			GW				10		X		X	X	X	X		X					
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks: Nitrate = 48 hour holding time. Sample receiving: samples may be received over multiple days and must be logged to same SDG.										pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: ☒ Y ☐ N COC Signed/Assured: ☒ Y ☐ N Bottles arrive intact: ☒ Y ☐ N Correct bottles used: ☒ Y ☐ N Sufficient volume sent: ☒ Y ☐ N IF APPLICABLE VOA 2-sec Headspace: ☒ Y ☐ N Preservation Correct/Checked: ☒ Y ☐ N RAD Screen: 40.5 HR/hr: ☒ Y ☐ N							
Samples returned via: ☐ UPS ☐ FedEx ☐ Courier		Tracking #												Trip Blank Received: Yes / No HCL / MeqM TBR		If preservation required by Login: Date/Time					
Relinquished by: (Signature) 		Date: 11-19-20		Time: 10:30		Received by: (Signature) 		Date: 12-4-20		Time: 1600		Received for lab by: (Signature) 		Date: 12/1		Time: 0845		Hold:		Condition: NCF 100	

Vista

5110 US Hwy 301 South
Baldwin, FL 32234

Billing Information:

jhill16@wm.com
PO BOX 6700
Portland, OR 97228-6700Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-756-5858
Fax: 615-756-5859Report to:
Eric ParkerEmail To:
eparker1@wm.com;efoeller@wm.com;lguilbeaProject Description:
Vista-Semiannual GW Parameters June DecCity/State
Collected:Please Circle:
PT MT CT ET

Phone: 904-562-9755

Client Project #
200Lab Project #
WMVISFL-00003

Collected by (print):

DANNY ARMOUR

Site/Facility ID #
FL26

P.O. #

Collected by (signature):

Rush? (Lab MUST Be Notified)

☐ Same Day ☐ Five Day
☐ Next Day ☐ 5 Day (Rad Only)
☐ Two Day ☐ 20 Day (Rad Only)
☐ Three Day

Quote #

Immediately
Packed on Ice: N ☐ Y ☒

Date Results Needed

No.
of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time		CHLORIDE 125mHDPE-NoPres	CHLORIDE, NITRATE 125mHDPE-NoPres	Metals - NAACP only 250mHDPE-HNO3	Metals 250mHDPE-HNO3	NH3 250mHDPE-H2SO4	SV8011 40mClr-NaThio	TDS 250mHDPE-NoPres	V8260LL - Trip Blk 40mIAmb-HCl-Blk	V8260LL 40mIAmb-HCl		
MW-148		GW				3	X		X		X						
MW-15A		GW				10		X		X	X	X	X		X		
MW-15B		GW				3	X		X		X						
Equipment Blank		GW				7		X		X	X	X	X				
TRIP BLANK	G	GW		12-4	-	2								X			-27
		GW				10		X		X	X	X	X		X		

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: Nitrate = 48 hour holding time.

Sample receiving: samples may be received over multiple days and must be logged to same SDG.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
☐ UPS ☐ FedEx ☐ Courier

Tracking #

Relinquished by: (Signature)

Date:

11-19-20

Time:

10:30

Received by: (Signature)

Trip Blank Received: Yes / No

HCL / Mesh
TSS

Relinquished by: (Signature)

Date:

12-4-20

Time:

1600

Received by: (Signature)

Bottles Received:

12/5 0845

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

Time:

Hold:

Condition:
NCE 100

Sample Receipt Checklist

COC Seal Present/Intact: ☒ Y ☐ N
 COC Signed/Accurate: ☒ Y ☐ N
 Bottles arrive intact: ☒ Y ☐ N
 Correct bottles used: ☒ Y ☐ N
 Sufficient volume sent: ☒ Y ☐ N
 If Applicable
 VOA HAP Headspace: ☒ Y ☐ N
 Preservation: Correct/Checked: ☒ Y ☐ N
 RAD Screen <0.5 mB/hr: ☒ Y ☐ N

If preservation required by Login: Date/Time

PURGING DATA

PURGING DATA

WELL ELEVATION TOC (ft NGVD):	51.0	GROUNDWATER ELEVATION (ft NGVD):	NA
-------------------------------	------	----------------------------------	----

WELL 101-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000-1001-1002-1003-1004-1005-1006-1007-1008-1009-1010-1011-1012-1013-1014-1015-1016-1017-1018-1019-1020-1021-1022-1023-1024-1025-1026-1027-1028-1029-1030-1031-1032-1033-1034-1035-1036-1037-1038-1039-1040-1041-1042-1043-1044-1045-1046-1047-1048-1049-1050-1051-1052-1053-1054-1055-1056-1057-1058-1059-1060-1061-1062-1063-1064-1065-1066-1067-1068-1069-1070-1071-1072-1073-1074-1075-1076-1077-1078-1079-1080-1081-1082-1083-1084-1085-1086-1087-1088-1089-1090-1091-1092-1093-1094-1095-1096-1097-1098-1099-1100-1101-1102-1103-1104-1105-1

DEPTH TO WATER) X WELL CAPACITY

WELL VOLUME FUDGE; TWELL VOLUME = TOTAL WELL DEPTH SURROUNDING THE WELLS
(only fill out if applicable)

Very low birth weight (VLBW) group

$$= (53.50 \text{ feet} - 34.33 \text{ feet}) \times 0.163 \text{ gallons/foot} = 3.45 \text{ gallons}$$

(only fill out if applicable)

100

$$= 0.2 \text{ gallons} + (0.0026 \text{ gallons/foot} \times 34.50 \text{ feet}) + 0.03 \text{ gallons} = 0.11 \text{ gallons}$$

		CLIM.	DEPTH		COND.	DISSOLVED OXYGEN				
--	--	-------	-------	--	-------	---------------------	--	--	--	--

[illegible]

WELL CAPACITY (Gallons Per Foot): $0.75'' = 0.02$; $1'' = 0.04$; $1.25'' = 0.08$; $2'' = 0.16$; $3'' = 0.37$; $4'' = 0.65$; $5'' = 1.02$; $6'' = 1.47$; $12'' = 5.88$

PURGING EQUIPMENT CODES: B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Penstock Pump; O = Other (Specify)

SAMPLING DATA

DAN ARMOUR / PRO-TECH		FIELD FILTERED: Y		FILTER SIZE:	
-----------------------	--	-------------------	--	--------------	--

PUMP OR TUBING

TUBING

FIELD NUMBER: 113
 11/30/54

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TYPE OF DECONTAMINATION	DATE	BY
-------------------------	------	----

TUBING

DUPLICATE:	Y
------------	---

⑦

FIELD DECONTAMINATION: PUMP T-1 (N)

TOPICS: ① (replaced)

SAMPLE	
--------	--

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	PUMP FLOW RATE gal (ml) per minute	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	3	G	40ml	HCl	-	NM	VOA	0.23	SP
	3	G	40ml	NaOH	-		SOIL		
	1	P	1000ml	-	-		G-CHEM		
	1	P	500ml	HNO3	-		METALS		
	1	AG	500ml	H2SO4	-		NH3		
	1	P	1000ml	HNO3	-		GRASS ALPHA		

MATERIAL CODES:

(Specify) _____

SAMPLING EQUIPMENT CODES: APP = After Partialle Pump; B = Beller; BP = Bladder Pump; ESP = Electric Submersible Pump;

1 The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (S)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation

optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

Revision Date: February 12, 2009

SAMPLING DATA										
SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH				SAMPLER(S) SIGNATURE(S): 			SAMPLING INITIATED AT: 1204		SAMPLING ENDED AT: NR	
PUMP OR TUBING DEPTH IN WELL (feet): 43.15				TUBING MATERIAL CODE: T			FIELD-FILTERED: Y ☒ µm Filtration Equipment Type:		FILTER SIZE:	
FIELD DECONTAMINATION: PUMP Y ☒				TUBING Y ☒ (replaced)			DUPLICATE: Y ☒			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLE PUMP FLOW RATE gal (lit. per. minute)	SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
	3	G	40ml	HCl	-	NM	VOA	0.24	BP	
	3	G	40ml	NaOH	-		Soil			
	1	P	1000ml	-	-		G-CHEM			
	1	P	500ml	HNO3	-		METALS			
	1	AG	500ml	H2SO4	-		NH3			
	1	P	1000ml	HNO3	-		GRAB ALPHA			
REMARKS: SEEN: No										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Sream Method (Tubing Gravity Drain); O = Other (Specify)										

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

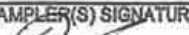
Revision Date: February 12, 2009

SITE NAME: VISTA		SITE LOCATION: APOKA, FL	
WELL NO: MW-14B	SAMPLE ID:	DATE: 12-2-20	

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 11/22				SAMPLING ENDED AT: NR			
PUMP OR TUBING DEPTH IN WELL (feet): 95.60				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y ☒ µm Filtration Equipment Type:				FILTER SIZE:			
FIELD DECONTAMINATION: PUMP Y ☒ TUBING Y ☒ (replaced)								DUPLICATE: Y ☒							
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLE PUMP FLOW RATE gal (wt. per minute)		SAMPLING EQUIPMENT CODE			
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH									
	3	G	40mL	HCl	-	NM	VOA		0.19		ESP				
	3	G	40mL	NatHo	-		8011								
	1	P	1000mL	-	-		G-CHEM								
	1	P	500mL	HNO3	-		METALS								
	1	AG	500mL	H2SO4	-		NH3								
	1	P	1000mL	HNO3	-		GRASS ALPHA								
REMARKS: SPEED: No															
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)															
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)															

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

SITE NAME: VISTA		SITE LOCATION: APOKA, FL	
WELL NO: MW-15B	SAMPLE ID:		DATE: 12-2-20

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH				SAMPLER(S) SIGNATURE(S): 			SAMPLING INITIATED AT: 0737		SAMPLING ENDED AT: NR	
PUMP OR TUBING DEPTH IN WELL (feet): 88.48				TUBING MATERIAL CODE: T			FIELD-FILTERED: Y ☒ µm		FILTER SIZE	
FIELD DECONTAMINATION: PUMP Y ☒				TUBING Y ☒ (replaced)			DUPLICATE: Y ☒			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLE PUMP FLOW RATE gal (ml per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH				SAMPLING EQUIPMENT CODE
	3	G	40ml	HCl	-	NM	VOA	0.18		SP
	3	G	40ml	NaOH	-		SOIL			
	1	P	1000ml	-	-		G-CHEM			
	1	P	500ml	HNO3	-		METALS			
	1	AG	500ml	H2SO4	-		NH3			
	1	P	1000ml	HNO3	-		GRASS ALPHA			
REMARKS: SHEEN: No										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: VISTA		SITE LOCATION: APOPKA, FL	
WELL NO: MW-01A	SAMPLE ID:		DATE: 12-3-20

PURGING DATA

PURGING DATA						
WELL DIAMETER (Inches):	2	TUBING DIAMETER (Inches):	3/8	WELL SCREEN INTERVAL DEPTH: 52.2 feet to 69.2 feet	STATIC DEPTH TO WATER (feet): 38.89	PURGE PUMP TYPE OR BAILER: BP
WELL ELEVATION TOC (ft NGVD):		GROUNDWATER ELEVATION (ft NGVD):				

WELL ELEVATION TOC (ft NGVD): 109.43

GROUNDWATER ELEVATION (ft NGVD): 78.58

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

$$= \left(\frac{\text{feet} - \text{feet}}{\text{feet}} \right) \times \text{gallons/foot} = \text{gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

$$= 0.3 \text{ gallons} + (0.05 \text{ gallons/foot} \times 69.71 \text{ feet}) + 0.05 \text{ gallons} = 0.22 \text{ gallons}$$

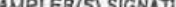
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 64.71	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 64.71	PURGING INITIATED AT: 1113	PURGING ENDED AT: 1133	TOTAL VOLUME PURGED (gallons): 5.40
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[illegible]

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.62; 8" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./FL): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.016; 5/8" = 0.018

PURGING EQUIPMENT CODES: B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOUR / PRO-TECH		SAMPLER(S) SIGNATURE(S): 		SAMPLING INITIATED AT: 1133		SAMPLING ENDED AT: NR	
PUMP OR TUBING DEPTH IN WELL (feet): 64.71		TUBING MATERIAL CODE: T		FIELD-FILTERED: Y ☒ µm Filtration Equipment Type:		FILTER SIZE:	
FIELD DECONTAMINATION: PUMP Y ☒ (N)		TUBING Y ☒ (replaced)		DUPLICATE: Y ☒ (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLE PUMP FLOW RATE gal (mlt per minute)	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	3	G	40ml	HCl	-	NM	VDA	0.29	BP
	3	G	40ml	Nathio	-		EDB/DACP		
	1	P	1000ml	-	-		G-CHEM		
	1	P	500ml	HNO3	-		METALS		
	1	AG	500ml	H2SO4	-		NH3		
	1	P	1000ml	HNO3	-		GROSS ALPHA		

REMARKS:

Shaen Present YES INFO

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump;
RFPP = Reverse Flow Peristaltic Pump; SM = Siphon Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

SITE NAME: VISTA		SITE LOCATION: APDPCA, FL	
WELL NO: MW-04A	SAMPLE ID:		DATE: 12-3-80

PURGING DATA				
WELL DIAMETER (Inches): 2	TUBING DIAMETER (Inches): 1/4	WELL SCREEN INTERVAL DEPTH (feet) to 46.35	STATIC DEPTH TO WATER (feet): 23.15	PURGE PUMP TYPE OR BAILER: BP
WELL ELEVATION TOC (ft NGVD): 82.04		GROUNDWATER ELEVATION (ft NGVD): 58.89		
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)				

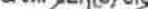
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

INITIAL PUMP OR TUBING = 0.2 gallons + (0.0026 gallons/foot X 46.35 feet) + 0.05 gallons = 0.33 gallons

[illegible]

PP = Peristaltic Pump, O = Other (Specify _____)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: AN ARMOVA / PRO-TECH		SAMPLER(S) SIGNATURE(S): 		SAMPLING INITIATED AT: 0800		SAMPLING ENDED AT: NR	
PUMP OR TUBING DEPTH IN WELL (feet): 41.65		TUBING MATERIAL CODE: T		FIELD-FILTERED: Y (N)		FILTER SIZE: µm	
FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced)				Filtration Equipment Type: DUPLICATE: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLE PUMP FLOW RATE 3 gal (m ³) per minute	SAMPLING EQUIPMENT CODE
SAMPLE CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	3	G	40ml	HCl	-	NM	VDA	0.22	BP
	3	G	40ml	Nothio	-		EDB/DACP		
	1	P	1000 ml	-	-		G-CHEM		
	1	P	500 ml	HNO3	-		METALS		
	1	AG	500 ml	H2SO4	-		NH3		
	1	P	1000 ml	HNO3	-		GROSS ALPHA		
REMARKS:									

Shaan Present: YES ☒ NO
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING EQUIPMENT CODES: APP = Aner Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPF = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 82-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2)
optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

PURGING EQUIPMENT CODES: B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

Revision Date: February 12, 2009

SAMPLING DATA

REMARKS:

Sheen Present YES ☒ NO

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump;
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); Q = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2202, SUBSTANTIAL)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

PURGING DATA

PURGING EQUIPMENT CODES: B = Baller; BP = Backflow Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

Revision Date: February 12, 2009

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: VISTA		SITE LOCATION: APOPKA FL	
WELL NO: MW-068B	SAMPLE ID:		DATE: 12-3-20

PURGING DATA

WELL DIAMETER (Inches): 2	TUBING DIAMETER (Inches): 3 1/8	WELL SCREEN INTERVAL DEPTH: 81.48 feet to 92.48 feet	STATIC DEPTH TO WATER (feet): 45.07	PURGE PUMP TYPE OR BAILER: BP
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WELL ELEVATION TOC (ft NGVD):	103.99	GROUNDWATER ELEVATION (ft NGVD):	58.92
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WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

= (	feet -	feet) X	gallons/foot	=	gallons
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EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

= 0.3 gallons + (0.006 gallons/foot X 92.48 feet) + 0.05 gallons = 0.90 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 8240	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8248	PURGING INITIATED AT: 1152	PURGING ENDED AT: 1212	TOTAL VOLUME PURGED (gallons): 6.20
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[illegible]

WELL CAPACITY (Gallons Per Foot):	0.75" = 0.02;	1" = 0.04;	1.25" = 0.06;	2" = 0.16;	3" = 0.37;	4" = 0.65;	5" = 1.02;	6" = 1.47;	12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./FL.):	1/8" = 0.0006;	3/16" = 0.0014;	1/4" = 0.0028;	5/16" = 0.004;	3/8" = 0.006;	1/2" = 0.010;	5/8" = 0.016		
PURGING EQUIPMENT CODES:	B = Bailer;	BP = Bladder Pump;	ESP = Electric Submersible Pump;	PP = Peristaltic Pump;	O = Other (Specify)				

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DANIELA A. B. / 188-188	SAMPLER(S) SIGNATURE(S): 	SAMPLING INITIATED AT: 1212	SAMPLING ENDED AT: 1212
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PUMP OR TUBING DEPTH IN WELL (feet):	8240	TUBING MATERIAL CODE:	T	FIELD-FILTERED: Y ☒ N ☐	FILTER SIZE:
				µm	
				Filtration Equipment Type:	

FIELD DECONTAMINATION:	PUMP	Y	(N)	TUBING	Y	(replaced)	DUPLICATE:	Y	(N)
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[illegible]

REMARKS:	SHEET: 26
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MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump;
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: VISTA		SITE LOCATION: APOPKA, FL	
WELL NO: MW-03A	SAMPLE ID:	BURDING DATE:	DATE: 12-3-20

PURGING DATA

PURGING DATA				
WELL DIAMETER (Inches):	2	TUBING DIAMETER (Inches):	1/4	WELL SCREEN INTERVAL DEPTHS: 1.23 / est 1.23 / est
WELL ELEVATION TOC (ft NGVD):	109.26	STATIC DEPTH TO WATER (feet):	36.45	PURGE PUMP TYPE OR BAILER: BP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)	GROUNDWATER ELEVATION (ft NGVD):			72.81

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

$$= 171.03 \text{ (sq) - } 36.95 \text{ (sq)} \times 0.163 \text{ gallons/foot} = 5.14 \text{ gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)

$$= 0.2 \text{ gallons} + (0.0016 \text{ gallons/foot} \times 71.03 \text{ feet}) + 0.05 \text{ gallons} = 0.43 \text{ gallons}$$

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	66.03	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	66.03	PURGING INITIATED AT:	0955	PURGING ENDED AT:	1027	TOTAL VOLUME PURGED (gallons):	8.3
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[illegible]

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.08; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0028; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.010; 5/8" = 0.018

PURGING EQUIPMENT CODES: B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Partially Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DAN ARMOVA / PRO-TECH		SAMPLER(S) SIGNATURE(S): 		SAMPLING INITIATED AT: 1027		SAMPLING ENDED AT: NR	
PUMP OR TUBING DEPTH IN WELL (feet): 66.03		TUBING MATERIAL CODE: T		FIELD-FILTERED: Y ☒ µm Filtration Equipment Type:		FILTER SIZE:	
FIELD DECONTAMINATION: PUMP Y ☒ TUBING Y ☒ (replaced)				DUPLICATE: Y ☒			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLE PUMP FLOW RATE gal (mt per minute)	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	3	G	40ml	HCl	-	NM	VDA	0.26	BP
	3	G	40ml	Nathio	-		GDB/DBCP		
	1	P	1000ml	-	-		G-CHEM		
	1	P	500ml	HNO3	-		METALS		
	1	AG	500ml	H2SO4	-		NH3		
	1	P	1000ml	HNO3	-		GROSS ALPHA		

REMARKS:

Shaan Present YES (H)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 82-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings < 20 NTU; optionally $+ 5$ NTU or $+ 10\%$ (whichever is greater)

Revision Date: February 12, 2009

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME:	VISTA		SITE LOCATION:	Apopka, FL								
WELL NO:	MW-02B	SAMPLE ID:		DATE: 12-4-20								
PURGING DATA												
WELL DIAMETER (Inches):	2	TUBING DIAMETER (Inches):	3/8	WELL SCREEN INTERVAL DEPTH: 77.05 feet to 77.05 feet	STATIC DEPTH TO WATER (feet): 29.72	PURGE PUMP TYPE OR BAILER: BP						
WELL ELEVATION TOC (ft NGVD): 88.96			GROUNDWATER ELEVATION (ft NGVD): 59.24									
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $= (\text{feet} - \text{feet}) \times \text{gallons/foot} = \text{gallons}$												
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) $= 0.3 \text{ gallons} + (0.006 \text{ gallons/foot} \times 77.05 \text{ feet}) + 0.05 \text{ gallons} = 0.81 \text{ gallons}$												
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 72.05		FINAL PUMP OR TUBING DEPTH IN WELL (feet): 72.05		PURGING INITIATED AT: 0741	PURGING ENDED AT: 0801	TOTAL VOLUME PURGED (gallons): 0.60						
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR	ODOR
0751	2.80	2.80	0.28	31.34	7.92	25.4	175	0.2	4.97	143		
0754	0.84	3.64	0.28	31.34	7.93	25.3	175	0.2	4.93	144		
0757	0.84	4.48	0.28	31.34	7.95	25.3	175	0.2	4.92	144		
0800	0.84	5.32	0.28	31.34	7.95	25.4	175	0.2	4.86	144	NONE	
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.010; 5/8" = 0.016												
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)												

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: DANIEL ARMOUR / PRO-TECH				SAMPLER(S) SIGNATURE(S): 			SAMPLING INITIATED AT: 0801		SAMPLING ENDED AT: NR	
PUMP OR TUBING DEPTH IN WELL (feet): 72.05				TUBING MATERIAL CODE: T			FIELD-FILTERED: Y ☒ µm		FILTER SIZE:	
FIELD DECONTAMINATION: PUMP Y ☒ TUBING Y ☒ (replaced)							DUPLICATE: Y ☒			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLE PUMP FLOW RATE µl (ml. per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
	1	PE	250 µl	HNO3	-	-	METALS		0.2B	
	1	PE	250 µl	H2SO4	-	-	NR3		BP	
	1	PE	125 µl	-	-	-	G-CHEN		BP	
REMARKS: SUSP: No										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2), optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Atlanta (770) 723-9239
Baton Rouge (504) 293-0135
Jackson (601) 693-3177
Houston (281) 441-7666
Pittsburgh (412) 746-8823

FACILITY NAME: VISTA

2TH TO WATER MEASUREMENTS

DATE: 12-1-20

MONITORING LOCATION	DEPTH TO WATER (ft TOC)
MW-01A	38.89
MW-01B	48.10
MW-02AR	27.00
MW-02B	29.72
MW-03A	34.26
MW-03B	34.52
MW-04A	23.15
MW-04B	23.31
MW-05A	21.48
MW-05B	22.65
MW-06AR	45.22
MW-06BR	45.07
MW-07A	36.45
MW-07B	48.86
MW-08R	38.42
MW-FLO1	34.56
MW-FLO2R	25.29

[illegible]

Atlanta (770) 723-0129
Baton Rouge (504) 293-0136
Jacksonville (904) 655-3127
Houston (281) 441-7606
Pittsburgh (412) 746-8623

FACILITY NAME: VISTA

2TH TO WATER 3ASUREMENTS

DATE: 12-4-20

[illegible][illegible]



WELL CONDITION INSPECTION FORM

Site: VISTA

Personnel: DANNY ARMOUR

Date: 12-2-70

Page 1 of 3

Well ID	Protective Casing	Well Casing	Label	Lockt	Sample Equipment Type	General Turbidity	Well Yield	Comments/Observations *
MW-01A	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	DEDICATED BLADDER PUMP	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
MW-01B	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
MW-02AR	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
MW-02B	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
MW-03A	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
MW-03B	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
MW-04A	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
MW-04B	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
MW-05A	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
MW-05B	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	

* Note ponding water, weep holes, or any other information pertaining to well condition. Provide additional details on listed items. Return this form to Site Manager - FOR INTERNAL USE ONLY.



WELL CONDITION INSPECTION FORM

Site: VISTA Personnel: DANNY ARMOUR

Date: 12-2-20

Page 2 of 3

Well ID	Protective Casing	Well Casing	Label	Lock	Sample Equipment Type	General Turbidity	Well Yield	Comments/Observations *
mw-06AR	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	DEDICATED BLADDER PUMP	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
mw-06BR	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
mw-07A	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
mw-07B	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
mw-08R	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	NON DEDICATED BLADDER PUMP	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
mw-09A	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	DEDICATED BLADDER PUMP	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
mw-09B	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
mw-11A	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
mw-11B	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
mw-15A	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	

* Note ponding water, weep holes, or any other information pertaining to well condition. Provide additional details on listed items. Return this form to Site Manager - FOR INTERNAL USE ONLY.



WELL CONDITION INSPECTION FORM

Site: VISTA Personnel: DANNY ARMOUR

Date: 12-2-20 Page 3 of 3

Well ID	Protective Casing	Well Casing	Label	Lock	Sample Equipment Type	General Turbidity	Well Yield	Comments/Observations *
MW-15B	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	DEDICATED BLADDER PUMP	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
MW-14A	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	"	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
MW-14B	☒ OK ☐ Damaged	☒ OK ☐ Damaged	☒ OK ☐ Inadequate	☒ Yes ☐ No	SUBMERSIBLE PUMP	☒ Clear ☐ Turbid	☒ OK ☐ Inadequate	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No		☐ Clear ☐ Turbid	☐ OK ☐ Inadequate	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No		☐ Clear ☐ Turbid	☐ OK ☐ Inadequate	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No		☐ Clear ☐ Turbid	☐ OK ☐ Inadequate	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No		☐ Clear ☐ Turbid	☐ OK ☐ Inadequate	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No		☐ Clear ☐ Turbid	☐ OK ☐ Inadequate	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No		☐ Clear ☐ Turbid	☐ OK ☐ Inadequate	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No		☐ Clear ☐ Turbid	☐ OK ☐ Inadequate	
	☐ OK ☐ Damaged	☐ OK ☐ Damaged	☐ OK ☐ Inadequate	☐ Yes ☐ No		☐ Clear ☐ Turbid	☐ OK ☐ Inadequate	

* Note ponding water, weep holes, or any other information pertaining to well condition. Provide additional details on listed items. Return this form to Site Manager - FOR INTERNAL USE ONLY.

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) HF SCIENTIFIC MICRO TPI INSTRUMENT # 200710329

PARAMETER: *[check only one]*

☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY .. ☐ pH ☐ ORP☒ TURBIDITY ☐ RESIDUAL Cl₂ ☐ DO ☐ OTHER

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A 1000 NTU HF SCIENTIFIC LOT# 90103 EXP: JAN 2021

Standard B 10.0 NTU HF SCIENTIFIC LOT # 90102 EXP: JAN 2021

Standard C 0.02 NTU HF SCIENTIFIC LOT# 90101 Exp: JAN 2021

DATE (YY/MM/DD)	TIME (HH:MM)	STD (A B C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
20/12/01	0800	A	1000	AUTO CAL	-	YES	INIT	DA
		B	10.0		-	YES	INIT	DA
		C	0.02		-	YES	INIT	DA
20/12/02	0615	A	1000	AUTO CAL	-	YES	CONT	DA
		B	10.0		-	YES	CONT	DA
		C	0.02		-	YES	CONT	DA
20/12/03	0615	A	1000	AUTO CAL	-	YES	CONT	DA
		B	10.0		-	YES	CONT	DA
		C	0.02		-	YES	CONT	DA
20/12/04	0615	A	1000	AUTO CAL	-	YES	CONT	DA
		B	10.0		-	YES	CONT	DA
		C	0.02		-	YES	CONT	DA

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Table FS 2200-2
Dissolved Oxygen Saturation

TEMP	D.O.	mg/L	TEMP	D.O.	mg/L	TEMP	D.O.	mg/L	TEMP	D.O.	mg/L
deg C	SAT.	20%	deg C	SAT.	20%	deg C	SAT.	20%	deg C	SAT.	20%
15.0	10.084	2.017	19.0	9.276	1.855	23.0	8.578	1.716	27.0	7.968	1.594
15.1	10.062	2.012	19.1	9.258	1.852	23.1	8.562	1.712	27.1	7.954	1.591
15.2	10.040	2.008	19.2	9.239	1.848	23.2	8.546	1.709	27.2	7.940	1.588
15.3	10.019	2.004	19.3	9.220	1.844	23.3	8.530	1.706	27.3	7.926	1.585
15.4	9.997	1.999	19.4	9.202	1.840	23.4	8.514	1.703	27.4	7.912	1.582
15.5	9.978	1.995	19.5	9.184	1.837	23.5	8.498	1.700	27.5	7.898	1.580
15.6	9.955	1.991	19.6	9.165	1.833	23.6	8.482	1.696	27.6	7.884	1.577
15.7	9.934	1.987	19.7	9.147	1.829	23.7	8.466	1.693	27.7	7.870	1.574
15.8	9.912	1.982	19.8	9.129	1.826	23.8	8.450	1.690	27.8	7.856	1.571
15.9	9.891	1.978	19.9	9.111	1.822	23.9	8.434	1.687	27.9	7.842	1.568
16.0	9.870	1.974	20.0	9.092	1.818	24.0	8.418	1.684	28.0	7.828	1.566
16.1	9.849	1.970	20.1	9.074	1.815	24.1	8.403	1.681	28.1	7.814	1.563
16.2	9.829	1.966	20.2	9.056	1.811	24.2	8.387	1.677	28.2	7.800	1.560
16.3	9.808	1.962	20.3	9.039	1.808	24.3	8.371	1.674	28.3	7.786	1.557
16.4	9.787	1.957	20.4	9.021	1.804	24.4	8.356	1.671	28.4	7.773	1.555
16.5	9.767	1.953	20.5	9.003	1.801	24.5	8.340	1.668	28.5	7.759	1.552
16.6	9.746	1.949	20.6	8.985	1.797	24.6	8.325	1.665	28.6	7.745	1.549
16.7	9.726	1.945	20.7	8.968	1.794	24.7	8.309	1.662	28.7	7.732	1.546
16.8	9.705	1.941	20.8	8.950	1.790	24.8	8.294	1.659	28.8	7.718	1.544
16.9	9.685	1.937	20.9	8.932	1.786	24.9	8.279	1.656	28.9	7.705	1.541
17.0	9.665	1.933	21.0	8.915	1.783	25.0	8.263	1.653	29.0	7.691	1.538
17.1	9.645	1.929	21.1	8.898	1.780	25.1	8.248	1.650	29.1	7.678	1.536
17.2	9.625	1.925	21.2	8.880	1.776	25.2	8.233	1.647	29.2	7.664	1.533
17.3	9.605	1.921	21.3	8.863	1.773	25.3	8.218	1.644	29.3	7.651	1.530
17.4	9.585	1.917	21.4	8.846	1.769	25.4	8.203	1.641	29.4	7.638	1.528
17.5	9.565	1.913	21.5	8.829	1.766	25.5	8.188	1.638	29.5	7.625	1.525
17.6	9.545	1.909	21.6	8.812	1.762	25.6	8.173	1.635	29.6	7.611	1.522
17.7	9.526	1.905	21.7	8.794	1.759	25.7	8.158	1.632	29.7	7.598	1.520
17.8	9.506	1.901	21.8	8.777	1.755	25.8	8.143	1.629	29.8	7.585	1.517
17.9	9.486	1.897	21.9	8.761	1.752	25.9	8.128	1.626	29.9	7.572	1.514
18.0	9.467	1.893	22.0	8.744	1.749	26.0	8.114	1.623	30.0	7.559	1.512
18.1	9.448	1.890	22.1	8.727	1.745	26.1	8.099	1.620	30.1	7.546	1.509
18.2	9.428	1.886	22.2	8.710	1.742	26.2	8.084	1.617	30.2	7.533	1.507
18.3	9.409	1.882	22.3	8.693	1.739	26.3	8.070	1.614	30.3	7.520	1.504
18.4	9.390	1.878	22.4	8.677	1.735	26.4	8.055	1.611	30.4	7.507	1.501
18.5	9.371	1.874	22.5	8.660	1.732	26.5	8.040	1.608	30.5	7.494	1.499
18.6	9.352	1.870	22.6	8.644	1.729	26.6	8.026	1.605	30.6	7.481	1.496
18.7	9.333	1.867	22.7	8.627	1.725	26.7	8.012	1.602	30.7	7.468	1.494
18.8	9.314	1.863	22.8	8.611	1.722	26.8	7.997	1.599	30.8	7.455	1.491
18.9	9.295	1.859	22.9	8.595	1.719	26.9	7.983	1.597	30.9	7.443	1.489

Derived using the formula in Standard Methods for the Examination of Water and Wastewater, Page 4-101, 18th Edition, 1992.

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS
INSTRUMENT (MAKE/MODEL#) YSI PRO SERIES INSTRUMENT # 150100782

INSTRUMENT (MAKE/MODEL#) YSI PRO SERIES INSTRUMENT # 15D100782

PARAMETER: *[check only one]*

- ☐ TEMPERATURE ☐ CONDUCTIVITY ☐ SALINITY .. ☐ pH ☐ ORP
☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased] 2308014 Exp: 7/23/20

Standard A 2.00 (std) PINE ENV Lot# ~~964106~~ Exp 1/21

Standard B 4.00 (std) 7.00 Env Lot# 96A1012 Exp: 1/21

Standard C (10.00 (std) Pine Enu Lot^s 2703951 Exp: 8/20/20

[illegible]

INSTRUMENT (MAKE/MODEL#) YSI PRO SERIES INSTRUMENT # 15D100782

☐ TEMPERATURE ☒ CONDUCTIVITY ☐ SALINITY ☐ pH ☐ ORP
☐ TURBIDITY ☐ RESIDUAL Cl ☐ DO ☐ OTHER _____

Standard A 1.413 ^{m3}/cm Fine Env. Lot# 8GT1041 Exp: 10/19

Standard C _____

Revision Date: February 1, 2004

APPENDIX B
COMPACT DISK CONTAINING
REPORT IN .PDF FORMAT
AND
ADaPT FILE