

STATE OF
COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

Schwartzwalder Mine Third Quarter 2021 Sampling Results

Evan Valencia <evalencia@ensero.com>

Tue, Oct 26, 2021 at 4:47 PM

To: "Eschberger - DNR, Amy" <amy.eschberger@state.co.us>

Cc: Paul Newman <paul@coloradolegacy.land>, Eric Williams <eric@coloradolegacy.land>, Jim Harrington <jim@coloradolegacy.land>, Billy Ray <bray@ensero.com>, Evelyn Rhodes <erhodes@arvada.org>, "eric.mink@state.co.us" <eric.mink@state.co.us>, Allan Steckelberg <asteckelberg@ensero.com>, "daniel.arnold@denverwater.org" <daniel.arnold@denverwater.org>, "bwyant@arvada.org" <bwyant@arvada.org>

Dear Ms. Eschberger,

On behalf of Colorado Legacy Land, I am pleased to submit the 2021 Third Quarter Sampling Results for the Former Schwartzwalder Mine located in Golden, Colorado. A hard copy has been sent to your office via overnight courier (FedEx Tracking No: 285389516640). Due to the size of this deliverable, electronic copies of the report and lab reports are available for download from the following SharePoint link:

Link:  [DRMS-CLL_Shared_Folder](#)Date: This link is active until September 27th, 2021.

You can also access this link through the automatic SharePoint email that is sent when I share the folder with you. If you have any issues access this deliverable please contact me directly by phone or email, I am happy to help.

Best,

Evan Valencia, EIT

Environmental Engineer I



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October 26, 2021

Ms. Amy Eschberger
Colorado Division of Reclamation, Mining, and Safety
Department of Natural Resources
1313 Sherman Street, Room 215
Denver, CO 80203

Subject: Third Quarter 2021 Sampling Results,
Schwartzwalder Mine, Golden Colorado,
Mine Land Reclamation Permit No. M-1977-300.

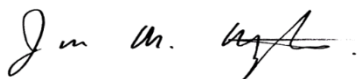
Dear Ms. Eschberger:

The third quarter sampling event at the Schwartzwalder Mine was conducted by Ensero Solutions US, Inc. (Ensero) field staff from July 19 to July 27, 2021. In addition to presenting sample data, CLL is including the Schwartzwalder Mine Schematic - Q3 2021 to illustrate the groundwater divide between the mine pool and Ralston Creek. During the third quarter sampling event, all samples taken of Ralston Creek within the permit boundary were below the Colorado drinking water standard for uranium, 30 µg/L.

- **Surface Water Data:** There are 13 quarterly surface water (SW) sampling locations. Figure 1 shows the location of each surface water sample locations along Ralston Creek. Table 2a summarizes surface water field parameters. Table 2b summarizes the analytical data results. The analytical laboratory data report and the chain of custody are attached to this report. A copy of the electronic data deliverable (EDD) excel file for these samples are included in this submittal.
- **Groundwater Data:** There are 13 quarterly groundwater monitoring well (MW) locations. Table 1 shows the monitoring well elevations. Figure 2 shows the location of each MW. Table 3a summarizes groundwater field parameters. Table 3b summarizes the analytical data results. The analytical laboratory data report and the chain of custody are attached to this report. A copy of the EDD excel file for these samples are included in this submittal.
- **Mine Pool Elevations:** Table 4 summarizes the mine pool elevations for the quarter. Pumping of the mine pool has consistently maintained the mine pool elevation below the regulatory limit of 150 feet (ft) below the Steve Level even during months of no pumping. Maintaining the mine pool below the regulatory limit has established a hydraulic gradient away from Ralston Creek, preventing mine water from entering the creek in the permit area.

If you have any questions regarding this letter, please do not hesitate to contact me.

Sincerely,



Jim Harrington, Managing Director

COLORADO LEGACY LAND

Jim@ColoradoLegacy.Land

cc: Paul Newman – CLL, Managing Director, paul@coloradolegacy.land
Eric Williams – CLL, Managing Director, eric@coloradolegacy.land
Billy Ray – Ensero, Site Manager, bray@ensero.com

Allan Steckelberg – Ensero, VP Construction & Risk, asteckelberg@ensero.com

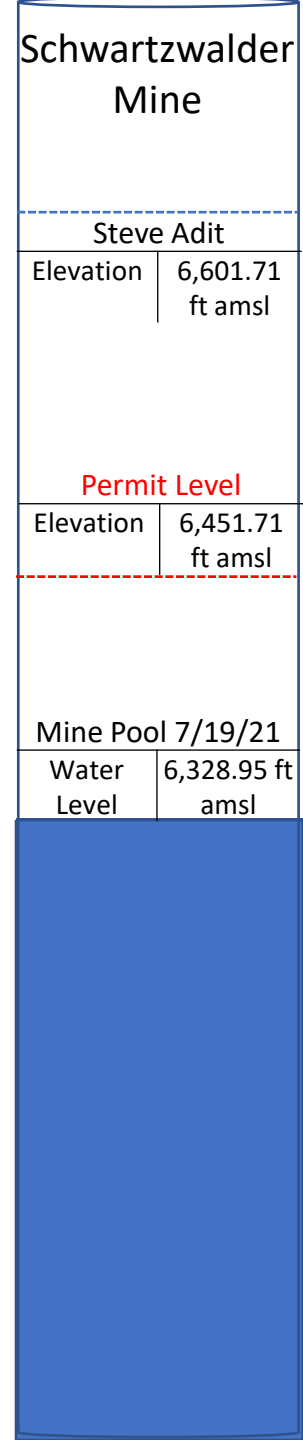
Elizabeth Busby – Ensero, Project Manager, ebusby@ensero.com

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Eric Mink – CDPHE, WQCD, eric.mink@state.co.us

Evelyn Rhodes – City of Arvada, Water Quality Administrator, erhodes@arvada.org

Brad Wyant – City of Arvada, Water Treatment Manager, bwyant@arvada.org



Schwartzwalder Mine	
Steve Adit	
Elevation	6,601.71 ft amsl
Permit Level	
Elevation	6,451.71 ft amsl
Mine Pool 7/19/21	
Water Level	6,328.95 ft amsl

MW-15 Top of Casing	
Elevation	6,899.33 ft amsl
MW-15 (7/27/21)	
Water Level	6,513.33 ft amsl
Total U	0.0306 mg/L
MW-15 Screened Interval	
Range	5,937.53 ft amsl - 5,897.53 ft amsl

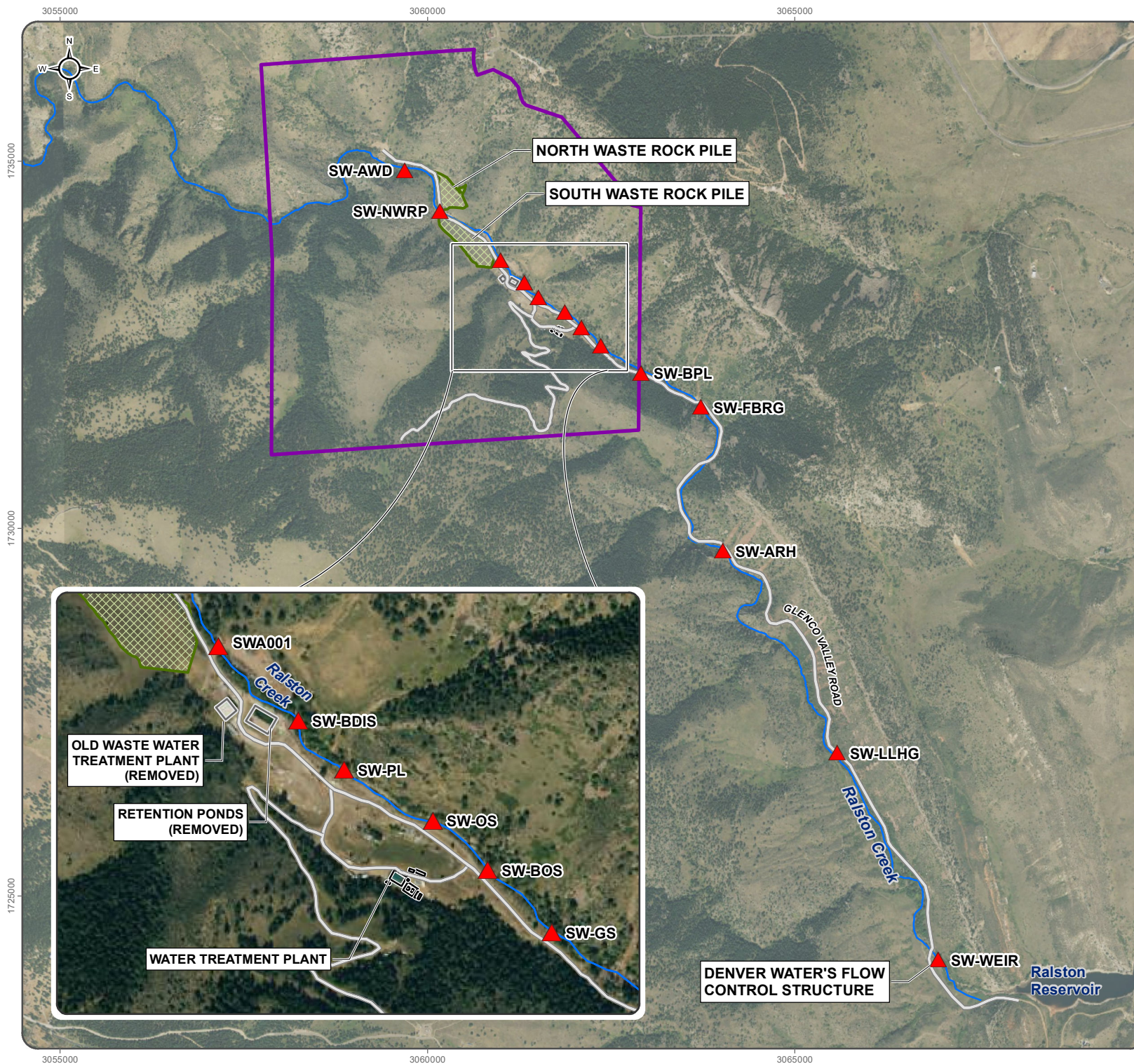
SW-AWD (7/19/2021)	
Elevation	6,636.37 ft amsl
Flow	1.0 cfs
Total U	0.00127 mg/L
SW-NWRP (7/19/2021)	
Elevation	6,626.91 ft amsl
Flow	3.0 CFS
Total U	0.00369 mg/L
SW-FBRG (7/19/2021)	
Elevation	6,489.65 ft amsl
Flow	5.0 CFS
Total U	0.0239 mg/L
SW-LLHG (7/19/2021)	
Elevation	6,158.46 ft amsl
Flow	2.1
Total U	0.023 mg/L

SW-BPL (7/19/2021)	
Elevation	6,522.53 ft amsl
Flow	2.6 CFS
Total U	0.0219 mg/L
SW-ARH (7/19/2021)	
Elevation	6,364.04 ft amsl
Flow	5.9 CFS
Total U	0.0234 mg/L
SW-WEIR (7/19/2021)	
Elevation	6,069.11 ft amsl
Flow	2.9 CFS
Total U	0.0224 mg/L

Schwartzwalder Mine Schematic – Q3 2021

Total U = Total Uranium Concentration
Ft amsl = Feet above mean sea level (elevation)
CFS = cubic feet per second

Ralston Creek



COLORADO LEGACY LAND SCHWARTZWALDER MINE

FIGURE 1

SURFACE WATER QUALITY MONITORING LOCATIONS

SEPTEMBER 2020



- ▲ Surface Water Quality Monitoring Station
- CLL Property Boundary
- Building, Existing
- Reclaimed Mine Feature
- Waste Rock Dump
- Road
- Watercourse

1:22,000 when printed on 8x11 inch paper

0 500 1,000 1,500 2,000 Feet

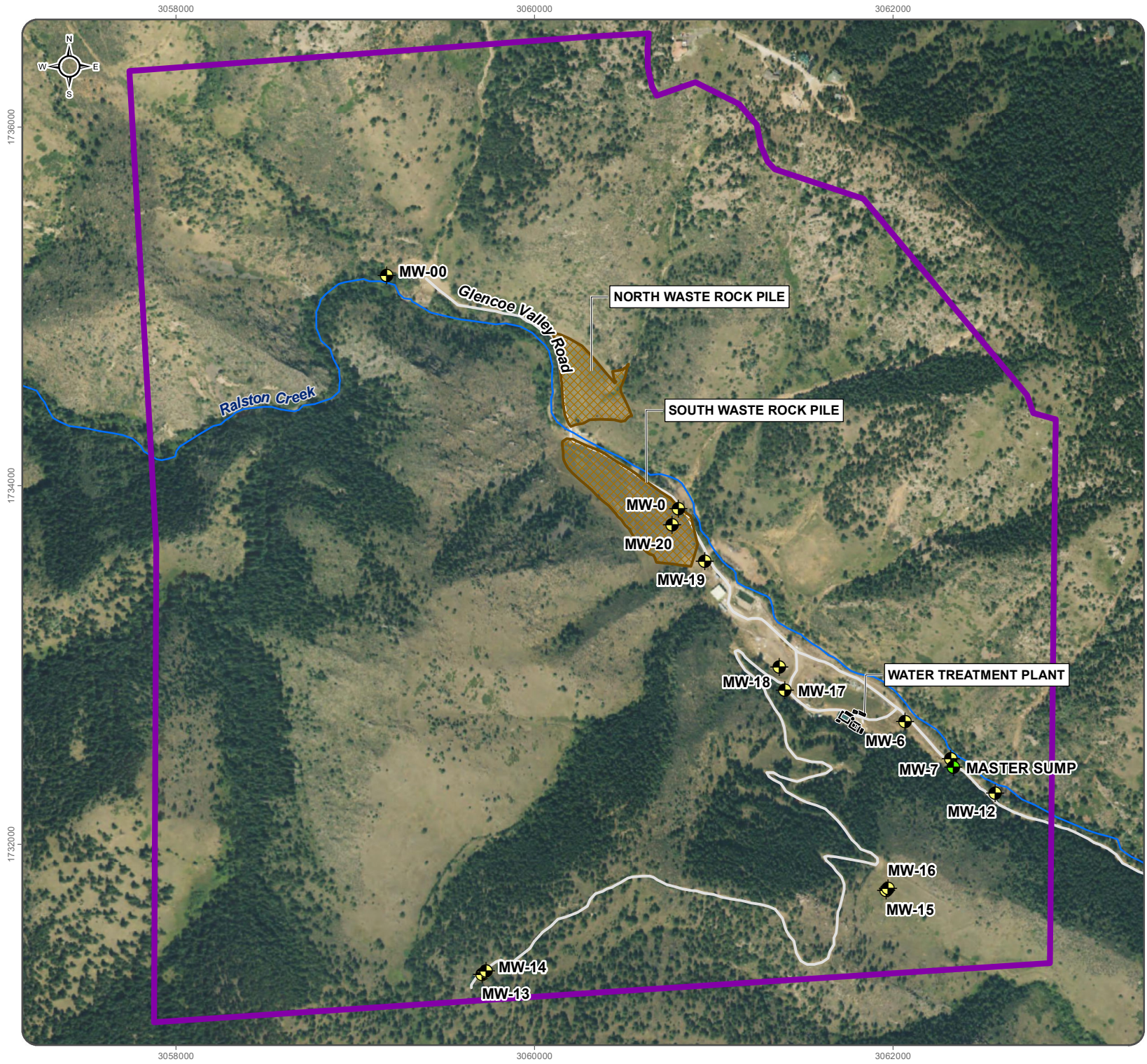


Satellite imagery obtained from ArcGIS on services.arcgis.com on September 2020

Datum: NAD 1983 (CORS96) StatePlane Colorado Central FIPS 0502 (US Feet)

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COLORADO LEGACY LAND
SCHWARTZWALDER MINE

FIGURE 2
GROUNDWATER MONITORING
LOCATIONS

OCTOBER 2020



- GW Monitoring Well
- Pumpback Sump
- CLL Property Boundary
- Waste Rock Dump
- Existing Mine Feature Footprint
- Glencoe Valley Road
- Ralston Creek

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0 250 500 750 1,000 Feet



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TABLE 1: GROUNDWATER SAMPLE LOCATIONS

Location ID / Sample ID	Installation Date	Northing (feet) ^{1,2}	Easting (feet) ^{1,2}	Ground Surface Elevation ¹ (ft amsl)	Casing Elevation ¹ (ft amsl)	Total Depth (ft bgs)	Well Construction Details	Screened Interval (ft bgs)	Notes
MW-00	10/29/1998	1,733,874.25	3,060,802.43	6,608.26	6,610.26	27.5	4-inch PVC, 0.03-in slot.	16.9-26.9	Screened interval interpreted from field boring log.
MW-0	Unknown, construction paper filed on 11/20/1992	1,735,174.35	3,059,175.16	6,666.64	6,667.64	23.0	2.5-inch PVC	15.0-20.0	No information exists for this boring log. Screened interval is taken from MW permit application. 15.0-20.0 is listed as the proposed screened interval.
MW-6	06/20/1989	1,732,682.94	3,062,066.36	6,556.52	6,557.67	15.0	2-in Sch 40 PVC, 0.03-in slot	5.0-15.0	
MW-7	06/20/1989	1,732,478.75	3,062,321.26	6,546.02	6,547.62	11.0	2-in Sch 40 PVC	5.0-10.0	
MW-12	November 2008 (According to EPP)	1,732,287.92	3,062,569.09	6,545.46	6,547.58	17.0	2-in PVC	12.0-17.0	Missing boring log and construction form. Was drilled to the be “downgradient alluvium compliance well”.
MW-13	09/06/2012	1,731,272.17	3,059,706.76	7,401.87	7,403.32	500.8	2-in Sch 40 PVC, 0.04-in slot	459.76-499.76	Nitrogen. Bladder pump in well.
MW-14	09/04/2012	1,731,293.55	3,059,730.06	7,401.32	7,402.39	154.3	2.375-in Sch 80 PVC, 0.02-in slot	134.34-154.34	Nitrogen. Bladder pump in well. Installed Dry.
MW-15	11/03/2012	1,731,742.41	3,061,962.60	6,897.53	6,899.33	1,007.13	3-in Sch 40 PVC, 0.04-in slot	960.0-1,000.0	Nitrogen. Bladder pump in well.
MW-16	10/19/2012	1,731,756.51	3,061,972.30	6,898.42	6,900.32	324.7	2.375-in Sch 80 PVC, 0.02-in slot	300.0-320.0	No pump in well. Installed dry.
MW-17	09/22/2012	1,732,861.21	3,061,398.57	6,600.86	6,602.57	119.0	2.375-in Sch 80 PVC, 0.02-in slot	95.0-115.0	Nitrogen.
MW-18	10/11/2012	1,732,989.50	3,061,365.66	6,575.34	6,576.88	239.9	2.375-in Sch 80 PVC, 0.02-in slot	215.0-235.0	
MW-19	09/28/2012	1,733,579.59	3,060,949.50	6,603.93	6,606.07	21.6	2.375-in Sch 80 PVC, 0.02-in slot	10.0-20.0	
MW-20	11/06/2012	1,733,782.66	3,060,767.07	6,645.28	6,647.37	50.0	2.375-in Sch 80 PVC, 0.02-in slot	40.0-50.0	Installed dry.
Raw Feed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Spigot – inside water treatment plant. Mine pool water influent to Water Treatment Plant. Raw Feed use to be called “Mine Refill”.
Sumps (Master Sump)	10/08/2010	1,732,431.06	3,062,337.59	6,544.66	6,547.21	6.0	N/A	N/A	Sample collected from Master Sump, commissioned 10/2020, previously Sump 1.

Citation:
¹ Locations surveyed by Lambert Land Consulting on 7/23/2020.

Notes:
² Coordinates: NAD 1983. Colorado State Plane Colorado Central (Feet).

N/A = not applicable

amsl = above mean sea level

bgs = below ground surface

ft = feet

in= inch

TABLE 2A: SURFACE WATER SAMPLE FIELD PARAMETERS									
Location ID / Sample ID	Elevation ¹ (ft above mean sea level)	Sample Date	Field Parameters						Notes / Location Description
			Flowrate (ft ³ /s)	pH (unitless)	Temperature (°C)	Conductivity (µS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	
SW-AWD	6,636.37	07/19/2021	1.0	7.88	19.1	285.4	70.6	8.20	Upstream sample location. Above waste dump (AWD). Onsite.
SW-NWRP	6,626.91	07/19/2021	3.0	7.82	18.5	287.2	19.9	10.13	Downstream of the North Waster Rock Pile (NWRP).
SW-A001	6,603.98	Not Sampled ²	--	--	--	--	--	--	Above former discharge point. Onsite. Directly below the west waste rock pile.
SW-BDIS	6,592.67	Not Sampled ²	--	--	--	--	--	--	Below former discharge (BDIS). Onsite. Below former concrete containment structure.
SW-PL	6,583.53	Not Sampled ²	--	--	--	--	--	--	Former parking lot (PL) location. Onsite.
SW-OS	6,562.51	Not Sampled ²	--	--	--	--	--	--	Former ore sorter (OS) location. Onsite.
SW-BOS	6,556.19	Not Sampled ²	--	--	--	--	--	--	Below former ore sorter (BOS) location. Onsite.
SW-GS	6,545.54	Not Sampled ²	--	--	--	--	--	--	Former guard shack (GS) location. Onsite.
SW-BPL	6,522.53	07/19/2021	2.6	7.68	18.4	267.3	87.5	12.10	Below property line (BPL). Downstream sample location, just below entrance gate. Offsite.
SW-FBRG	6,489.65	07/19/2021	5.0	7.95	16.9	263.1	111	11.14	First bridge (FBRG) after leaving site. Offsite.
SW-ARH	6,364.04	07/19/2021	5.9	7.99	16.2	266.7	120	12.57	Above red hill (ARH). Near the large red boulders in the creek bed. Offsite.
SW-LLHG	6,158.46	07/19/2021	2.1	7.80	15.7	265.4	86.2	9.59	Long lake head gate (LLHG). Just above head gate. Offsite.
SW-WEIR	6,069.11	07/19/2021	2.9	7.17	15.4	270.0	172	10.54	Weir structure before Ralston Reservoir Offsite.

Citation:
¹ Locations surveyed by Lambert Land Consulting on 7/23/2020.

Notes:
² Location was dry.
µS/cm = microSiemens per centimeter
°C = degrees Celsius
ft³/s= cubic feet per second
kg / day = kilogram per day
mg/L = milligrams per liter
mV =millivolts
ORP = Oxidization Reduction Potential

TABLE 2B: SUMMARY OF SURFACE WATER ANALYTICAL DATA

Parameter	Units	Surface Water Quality Standards Segment 17b, Ralston Creek (CDPHE 2019) ¹		Sample Location						
				SW-ARH	SW-AWD	SW-BPL	SW-FBRG	SW-LLHG	SW-NWRP	SW-Weir
		Acute	Chronic	07/19/2021	07/19/2021	07/19/2021	07/19/2021	07/19/2021	07/19/2021	07/19/2021
Physical Properties										
TDS - Total Dissolved Solids	mg/L	-	-	202	230	200	194	206	222	216
TSS - Total Suspended Solids	mg/L	-	-	<5	5 B	<5	5 B	5 B	7 B	<5
Major Ions										
Alkalinity as CaCO ₃	mg/L	-	-	72.7	64.5	69.4	70.2	74.4	66.5	76.8
Bicarbonate as CaCO ₃	mg/L	-	-	72.7	64.5	69.4	70.2	74.4	66.5	76.8
Calcium - Dissolved	mg/L	-	-	31.1	32	29	29.9	30.6	32.9	31
Carbonate as CaCO ₃	mg/L	-	-	<2	<2	<2	<2	<2	<2	<2
Chloride	mg/L	-	250	47.6	57	48.6	48.1	47.9	56.2	47.9
Fluoride	mg/L	-	-	0.3 B	0.36	0.28 B	0.28 B	0.3 B	0.32 B	0.31 B
Hydroxide as CaCO ₃	mg/L	-	-	<2	<2	<2	<2	<2	<2	<2
Magnesium - Dissolved	mg/L	-	-	8.8	8.42	8.07	8.31	8.62	8.84	8.77
Potassium - Dissolved	mg/L	-	-	1.93	1.76	1.64	1.72	1.81	1.83	1.88
Sodium - Dissolved	mg/L	-	-	21	16.1	18.5	19	20.5	16.2	21.2
Sulfate	mg/L	-	250	20.2	12.2	14.9	16.3	20.8	12.8	22.9
Nutrients										
Cyanide - Weak Acid Dissociable	mg/L	0.005	-	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Nitrate+Nitrite as N	mg/L	NO ₃ =10	NO ₂ =0.05	0.038 B	0.021 B	0.04 B	0.038 B	0.035 B	0.043 B	0.03 B
Phosphate - Total	mg/L	-	-	0.0341 B	<0.03	<0.03	<0.03	0.0403 B	0.0341 B	0.0372 B
Phosphorus - Total	mg/L	-	0.11	0.011 B	<0.01	<0.01	<0.01	0.013 B	0.011 B	0.012 B
Metals – Dissolved										
Aluminum	mg/L	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Antimony	mg/L	-	-	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Arsenic	mg/L	0.34	-	0.00059 B	<0.0002	0.00054 B	0.00052 B	0.00047 B	<0.0002	0.00048 B
Boron	mg/L	-	0.75	0.033 B	<0.03	0.033 B	0.032 B	0.032 B	<0.03	0.038 B
Chromium	mg/L	-	Chromium III=0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		Chromium IV = 0.016	Chromium IV = 0.011							
Copper	mg/L	0.0213	0.0136	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	mg/L	-	0.3	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Lead	mg/L	0.109	0.0043	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Manganese	mg/L	3.51	1.94	<0.01	<0.01	<0.01	<0.01	0.027 B	<0.01	0.019 B
Mercury	mg/L	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	-	-	0.00203	0.0005 B	0.00119	0.00133	0.00244	0.00079	0.00314
Silver	mg/L	0.0047	0.00017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Thallium	mg/L	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001

TABLE 2B: SUMMARY OF SURFACE WATER ANALYTICAL DATA

Parameter	Units	Surface Water Quality Standards Segment 17b, Ralston Creek (CDPHE 2019) ¹		Sample Location						
				SW-ARH	SW-AWD	SW-BPL	SW-FBRG	SW-LLHG	SW-NWRP	SW-Weir
		Acute	Chronic	07/19/2021	07/19/2021	07/19/2021	07/19/2021	07/19/2021	07/19/2021	07/19/2021
Uranium	mg/L	-	-	0.0207	0.00111	0.0191	0.0206	0.0206	0.00325	0.02
Zinc	mg/L	0.249	0.188	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Metals – Total										
Aluminum	mg/L	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.065 B
Antimony	mg/L	-	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Arsenic	mg/L	-	0.00002	0.00057 B	<0.0002	0.00061 B	0.00059 B	0.00052 B	0.00025 B	0.00057 B
Boron	mg/L	-	0.75	0.037 B	<0.03	0.034 B	0.038 B	0.037 B	<0.03	0.038 B
Chromium	mg/L	Chromium III = 0.005	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
		Chromium IV = 0.016	Chromium IV = 0.011							
Copper	mg/L	0.0213	0.0136	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Iron	mg/L	-	1	0.111 B	0.09 B	0.124 B	0.137 B	0.147 B	0.164	0.249
Lead	mg/L	0.05	-	<0.0001	<0.0001	<0.0001	<0.0001	0.00013 B	0.00013 B	0.0002 B
Manganese	mg/L	0.05	-	0.012 B	<0.01	<0.01	<0.01	0.019 B	0.014 B	0.035 B
Mercury	mg/L	3.513	1.941	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	-	0.15	0.00194	0.00054	0.00129	0.00137	0.00248	0.0009	0.00316
Silver	mg/L	0.0047	0.00017	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Thallium	mg/L	-	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Uranium	mg/L	-	-	0.0234	0.00127	0.0219	0.0239	0.023	0.00369	0.0224
Zinc	mg/L	0.249	0.188	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Radionuclides										
Gross Alpha	pCi/L	-	-	16	0.5	14	21	15	2.7	16
Gross Beta	pCi/L	-	-	7.8	3.4	6.7	9.1	8.4	5.2	8.8
Radium 226 - Dissolved	pCi/L	-	-	0.18	0.07	0.25	0.26	0.39	0.18	0.38
Radium 226 - Total	pCi/L	-	-	0.13	0.17	0.45	0.35	0.4	0.19	0.31
Radium 228 - Total	pCi/L	-	-	0.2	0.36	0.28	0.15	0.76	-0.09	0.93
Radium 226 + Radium 228 - Total	pCi/L	-	-	0	0.17	0.45	0.35	0.4	0.19	0.31

Notes:

¹ Acute and chronic standards for cadmium, chromium III, copper, lead, manganese, nickel, silver, uranium and zinc are calculated using an average hardness value of 163 mg/L as CaCO₃.

Bold and grey-shaded analytical results are detected above the criteria.

B = Estimated concentration

NO₃= Nitrate

NO₂= Nitrite

CaCO₃= Calcium Carbonate

mg/L= milligrams per Liter

pCi/L= picocuries per Liter

Chromium III = Trivalent Chromium

Chromium IV = Tetravalent Chromium

Source:

CDPHE. 2019. Regulation No. 38 Stream Classification and Water Quality Standards, Clear Creek Basin, Segment 17b. Mainstem of Ralston Creek Including all Tributaries and Wetlands from the Source to the Inlet of Arvada Reservoir. June

TABLE 3A: GROUNDWATER SAMPLE FIELD PARAMETERS

Location ID / Sample ID ²	Sample Date	Field Parameters						Notes / Location Description
		Static Depth to Water (ft btoc)	pH (unitless)	Temperature (°C)	Conductivity (µS/cm)	ORP (mV)	Dissolved Oxygen (mg/L)	
MW-00	07/21/2021	8.71	7.55	10.2	260.7	105.6	3.19	Alluvial well. Above waste dumps, upstream of site.
MW-0	07/21/2021	11.58	7.40	11.5	397.9	47.7	2.39	Alluvial well. Toe of south waste rock pile.
MW-6	07/21/2021	8.05	7.22	12.8	635.0	138.6	4.71	Alluvial well. Near former Sump #2.
MW-7	07/20/2021	8.35	7.2	14.6	875.0	91.1	3.74	Alluvial well. Near Sump #1. This sample was a grab sample was taken 24 hours after the first attempt to sample during which the well ran dry while purging.
MW-12	Not Sampled ¹	--	--	--	--	--	--	Below Sump #1. Alluvial well.
MW-13	07/27/2021	442.72	8.33	9.9	315.3	-75.9	1.88	Nitrogen purge. Replaced MW-10. Previous Sample ID = L1. Background well.
MW-14	07/27/2021	76.97	8.00	9.5	160.1	-113.0	1.81	Nitrogen purge. Replaced MW-11. Previous Sample ID = L2. Background well.
MW-15	07/27/2021	386.30	8.45	11.6	789.0	-276.0	135	Nitrogen purge. Previous Sample ID = L3. Bedrock well.
MW-16	--	--	--	--	--	--	--	Previous Sample ID = L4. Bedrock well. No sample required.
MW-17	Not Sampled ¹	--	--	--	--	--	--	Nitrogen purge. Previous Sample ID = L5.
MW-18	Not Sampled ¹	--	--	--	--	--	--	Previous Sample ID = L6. Bedrock well, installation targeted Illinois fault zone in alluvial valley.
MW-19	07/21/2021	16.60	7.34	11.3	447.5	134.6	4.67	Toe of south waste rock pile. Previous Sample ID = L7.
MW-20	Not Sampled ¹	--	--	--	--	--	--	Usually dry. Top of south waste rock pile.
Raw Feed	07/21/2021	--	7.38	21.9	3,527	-117.2	2.53	Sample collected from spigot inside water treatment plant. This is the water treatment plant intake from the mine pool. Previous Sample ID = Mine Refill.
Sumps	07/20/2021	--	7.00	18.8	1,082	137.9	8.60	Sample collected from sump water from Sump #1 (Master Sump).

Notes:
¹Water present in well was dry or insufficient volume to collect sample.

²MW-1, MW-2, MW-3A, and MW-8 were removed in 2019; MW-4 and MW-5 were removed in 2008. MW-8 was replaced with MW-12. MW-10 and MW-11 were fouled (bentonite in screened interval) and replaced with MW-13 and MW-14.

µS/cm = microSemiens per centimeter

°C = degrees Celsius

ft btoc = feet below top of casing

ID = Identifier

mg/L = milligrams per liter

mV =millivolts

MW = Monitoring Well

ORP = Oxidization Reduction Potential

TABLE 3B: SUMMARY OF GROUND WATER ANALYTICAL DATA												
Parameter	Units	Domestic Water Supply - Drinking Water Standards (CDPHE 2018)	Sample Location									
			MW-00	MW-0	MW-6	MW-7	MW-13	MW-14	MW-15	MW-19	Raw Feed	Sump Composite
			07/21/2021	07/21/2021	07/21/2021	07/20/2021	07/27/2021	07/27/2021	07/27/2021	07/21/2021	07/21/2021	07/20/2021
Physical Properties												
TDS - Total Dissolved Solids	mg/L	-	228	372	614	890	276	164 H	724	434	3260	998
TSS - Total Suspended Solids	mg/L	-	5 B	<5	<5	5 B	<5	<5	<5	<5	32	5 B
Major Ions												
Alkalinity as CaCO ₃	mg/L	-	117	185	193	179	158	90.6	258	173	846	162
Bicarbonate as CaCO ₃	mg/L	-	117	185	193	179	158	90.6	249	173	846	162
Calcium - Dissolved	mg/L	-	40.9	68.4	94.7	133	45.5	22.1	23.1	57.6	349	154
Carbonate as CaCO ₃	mg/L	-	<2	<2	<2	<2	<2	<2	9.3 B	<2	<2	<2
Chloride	mg/L	250	40.1	19.2	25.7	27.5	4.82	2.79	20.7	18.2	55	26.2
Fluoride	mg/L	4	0.29 B	0.27 B	0.43	0.42	0.48	0.44	1.75	0.45	1.52	0.45
Hydroxide as CaCO ₃	mg/L	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Magnesium - Dissolved	mg/L	-	11.6	21.3	40.3	56.5	14.7	5.68	10.9	37	271	64.9
Potassium - Dissolved	mg/L	-	1.97	3.22	5.15	6.4	5.25	3.68	7.56	4	30.2	7.79
Sodium - Dissolved	mg/L	-	15.3	15.7	24.3	33.5	20.3	20.1	202	20.8	297	29.4
Sulfate	mg/L	250	18.9	78.9	254	418	79.9	35.7	327	144	1790	540
Nutrients												
Cyanide - Weak Acid Dissociable	mg/L	0.2	<0.003	<0.003	<0.003	<0.003 H	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003 H
Nitrate+Nitrite as N	mg/L	10	0.115	0.755	1.43	1.56	0.026 B	0.096 B	0.098 B	0.73	<0.02	1.39
Phosphate - Total	mg/L	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.0372 B	0.27	<0.03
Phosphorus - Total	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012 B	0.086	<0.01
Metals - Dissolved												
Aluminum	mg/L	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05
Antimony	mg/L	0.006	<0.0004	<0.0004	0.00053 B	0.0009 B	<0.0004	0.00129 B	<0.0004	<0.0004	<0.0008	0.00205
Arsenic	mg/L	0.01	<0.0002	<0.0002	0.00026 B	<0.0002	<0.0002	0.00022 B	0.00478	<0.0002	0.0302	<0.0002
Boron	mg/L	0.75	<0.03	<0.03	0.03 B	0.053 B	<0.03	<0.03	0.194	<0.03	0.293	0.061 B
Chromium	mg/L	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.04	<0.02
Copper	mg/L	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.017 B	<0.01	<0.02	<0.01
Iron	mg/L	0.3	<0.06	<0.06	<0.06	<0.06	<0.06	0.209	0.12 B	<0.06	10	<0.06
Lead	mg/L	0.1	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001
Manganese	mg/L	0.05	<0.01	<0.01	<0.01	<0.01	0.519	0.2	0.02 B	<0.01	0.806	0.068
Mercury	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	0.21	0.00057	0.0119	0.0367	0.0343	0.0893	0.00329	0.0163	0.0381	1.18	0.0502
Silver	mg/L	0.05	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001
Thallium	mg/L	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	0.00015 B
Uranium	mg/L	0.03	0.00482	0.316	1.3	1.1	0.0267	0.00201	0.0306	0.916	18.7	1.39

TABLE 3B: SUMMARY OF GROUND WATER ANALYTICAL DATA

Parameter	Units	Domestic Water Supply - Drinking Water Standards (CDPHE 2018)	Sample Location									
			MW-00	MW-0	MW-6	MW-7	MW-13	MW-14	MW-15	MW-19	Raw Feed	Sump Composite
			07/21/2021	07/21/2021	07/21/2021	07/20/2021	07/27/2021	07/27/2021	07/27/2021	07/21/2021	07/21/2021	07/20/2021
Zinc	mg/L	5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.04	0.097
Metals - Total												
Aluminum	mg/L	5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	0.061 B
Antimony	mg/L	0.006	<0.0002	<0.0002	0.00041 B	0.00062 B	<0.0002	0.00146 B	<0.0002	<0.0002	<0.0004	0.00114 B
Arsenic	mg/L	0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.00035 B	0.00505	<0.0002	0.0277	0.00092 B
Boron	mg/L	0.75	<0.03	0.038 B	0.053 B	0.073 B	<0.03	0.032 B	0.217	0.048 B	0.319	0.078 B
Chromium	mg/L	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.04	<0.02
Copper	mg/L	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.039 B	0.061
Iron	mg/L	0.3	<0.06	<0.06	<0.06	<0.06	<0.06	0.304	0.123 B	<0.06	10.2	0.45
Lead	mg/L	0.05	<0.0001	<0.0001	<0.0001	<0.0001	0.00016 B	<0.0001	<0.0001	<0.0001	<0.0002	0.00014 B
Manganese	mg/L	0.05	<0.01	<0.01	<0.01	<0.01	0.547	0.22	0.018 B	<0.01	0.853	0.074
Mercury	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Molybdenum	mg/L	0.21	0.00054	0.012	0.0371	0.0343	0.0925	0.00347	0.0169	0.0381	1.21	0.049
Silver	mg/L	0.05	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001
Thallium	mg/L	0.002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	0.00019 B
Uranium	mg/L	0.03	0.00496	0.322	1.3	1.11	0.0269	0.00218	0.0318	0.928	19.9	1.37
Zinc	mg/L	5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.04	0.127
Radionuclides												
Gross Alpha	pCi/L	15	3.1	170	820	570	26	2.7	110	520	12,000	910
Gross Beta	pCi/L	-	6.2	71	260	220	10	4.6	36	180	6,000	330
Radium 226 - Dissolved	pCi/L	-	0.23	0.14	0.76	0.78	0.29	0.13	36	1.8	150	5.7
Radium 226 - Total	pCi/L	-	0.1	0.23	0.7	0.78	0.39	0.2	43	1.4	150	4.5
Radium 228 - Total	pCi/L	-	-0.23	0.3	-0.11	2	0.66	-0.28	1.1	0.81	3.2	1.1
Radium 226 + Radium 228 - Total	pCi/L	5	0	0.23	0.7	0.78	0.39	0	43	1.4	150	4.5

Notes:

Bold and grey shaded analytical results are detected above the criteria.

B = Estimated concentration

CaCO₃= Calcium Carbonate

mg/L= milligrams per Liter

pCi/L= picocuries per Liter

Chromium III = Trivalent Chromium

Chromium IV = Tetravalent Chromium

NO₂= Nitrite

NO₃= Nitrate

N/A= Standard not Defined

Source:

CDPHE. 2018. Regulation No. 41 – The Basic Standards for Ground Water (5 CCR 1002-41). Water Quality Control Commission. December.

TABLE 4: DAILY AVERAGE MINE POOL ELEVATIONS		
Date	Distance Below Steve Level (feet)	Elevation of Water Level (feet above mean sea level)
7/1/2021	244.72	6,356.99
7/2/2021	245.22	6,356.49
7/3/2021	246.06	6,355.65
7/4/2021	247.1	6,354.61
7/5/2021	247.5	6,354.21
7/6/2021	248.31	6,353.40
7/7/2021	249.34	6,352.37
7/8/2021	250.71	6,351.00
7/9/2021	252.76	6,348.95
7/10/2021	254.47	6,347.24
7/11/2021	256.98	6,344.73
7/12/2021	259.56	6,342.15
7/13/2021	261.84	6,339.87
7/14/2021	264.38	6,337.33
7/15/2021	265.73	6,335.98
7/16/2021	267.64	6,334.07
7/17/2021	269.14	6,332.57
7/18/2021	270.78	6,330.93
7/19/2021	272.76	6,328.95
7/20/2021	274.3	6,327.41
7/21/2021	276.08	6,325.63
7/22/2021	277.52	6,324.19
7/23/2021	279.19	6,322.52
7/24/2021	280.5	6,321.21
7/25/2021	281.78	6,319.93
7/26/2021	283.65	6,318.06
7/27/2021	284.69	6,317.02
7/28/2021	286.43	6,315.28
7/29/2021	288.14	6,313.57
7/30/2021	289.55	6,312.16
7/31/2021	290.88	6,310.83
8/1/2021	291.96	6,309.75
8/2/2021	293.87	6,307.84
8/3/2021	295.48	6,306.23
8/4/2021	296.78	6,304.93
8/5/2021	298.22	6,303.49
8/6/2021	299.83	6,301.88
8/7/2021	301.84	6,299.87
8/8/2021	304.02	6,297.69
8/9/2021	306.13	6,295.58

TABLE 4: DAILY AVERAGE MINE POOL ELEVATIONS		
Date	Distance Below Steve Level (feet)	Elevation of Water Level (feet above mean sea level)
8/10/2021	307.74	6,293.97
8/11/2021	309.65	6,292.06
8/12/2021	310.08	6,291.63
8/13/2021	312.33	6,289.38
8/14/2021	314.37	6,287.34
8/15/2021	316.11	6,285.60
8/16/2021	318.19	6,283.52
8/17/2021	320.16	6,281.55
8/18/2021	321.77	6,279.94
8/19/2021	323.85	6,277.86
8/20/2021	324.67	6,277.04
8/21/2021	326.89	6,274.82
8/22/2021	328.5	6,273.21
8/23/2021	330.48	6,271.23
8/24/2021	332.12	6,269.59
8/25/2021	333.67	6,268.04
8/26/2021	335.44	6,266.27
8/27/2021	337.11	6,264.60
8/28/2021	338.62	6,263.09
8/29/2021	340.5	6,261.21
8/30/2021	341.58	6,260.13
8/31/2021	342.88	6,258.83
9/1/2021	344.52	6,257.19
9/2/2021	345.56	6,256.15
9/3/2021	347.43	6,254.28
9/4/2021	348.24	6,253.47
9/5/2021	348.97	6,252.74
9/6/2021	349.48	6,252.23
9/7/2021	350.01	6,251.70
9/8/2021	351.05	6,250.66
9/9/2021	351.89	6,249.82
9/10/2021	352.82	6,248.89
9/11/2021	353.47	6,248.24
9/12/2021	354.4	6,247.31
9/13/2021	>354.4	<6,247.31
9/14/2021	>354.4	<6,247.31
9/15/2021	>354.4	<6,247.31
9/16/2021	>354.4	<6,247.31
9/17/2021	>354.4	<6,247.31
9/18/2021	>354.4	<6,247.31

TABLE 4: DAILY AVERAGE MINE POOL ELEVATIONS		
Date	Distance Below Steve Level (feet)	Elevation of Water Level (feet above mean sea level)
9/19/2021	>354.4	<6,247.31
9/20/2021	>354.4	<6,247.31
9/21/2021	>354.4	<6,247.31
9/22/2021	>354.4	<6,247.31
9/23/2021	>354.4	<6,247.31
9/24/2021	>354.4	<6,247.31
9/25/2021	>354.4	<6,247.31
9/26/2021	>354.4	<6,247.31
9/27/2021	>354.4	<6,247.31
9/28/2021	>354.4	<6,247.31
9/29/2021	>354.4	<6,247.31
9/30/2021	>354.4	<6,247.31

Notes:

The elevation of the Steve Adit is 6601.71 feet above mean sea level. This was surveyed by Lambert Land Consulting on 7/23/2020.

On 9/13/2021, the mine pool was dewatered below the elevation of the mine pool transducer. From 9/13/2021-9/30/2021, the transducer readings confirmed that the mine pool was below the elevation of the transducer, <6,247.31 ft amsl.

On 9/23/2021, the water treatment plant was shut down for the winter season, and the mine pool began to refill.

August 18, 2021

Report to:

Christie Brizinski
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

Bill to:

Pauline Wong
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

cc: Ensero/Alexco Importer, Evan Valencia

Project ID: 3100-PO205

ACZ Project ID: L67260

Christie Brizinski:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 21, 2021. This project has been assigned to ACZ's project number, L67260. Please reference this number in all future inquiries.

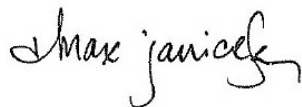
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L67260. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 17, 2021. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Max Janicek has reviewed and
approved this report.



Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-WEIR

ACZ Sample ID: **L67260-01**

Date Sampled: 07/19/21 09:45

Date Received: 07/21/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						07/29/21 9:58	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/26/21 11:40	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/03/21 8:40	mfm
Total Hot Plate Digestion	M200.2 ICP								08/01/21 14:30	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-WEIR

ACZ Sample ID: **L67260-01**

Date Sampled: 07/19/21 09:45

Date Received: 07/21/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	07/28/21 15:41	kja
Aluminum, total	M200.7 ICP	1	0.065	B		mg/L	0.05	0.25	08/02/21 10:58	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 16:26	bsu
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/04/21 16:36	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	0.00048	B		mg/L	0.0002	0.001	08/03/21 11:57	mfm
Arsenic, total	M200.8 ICP-MS	1	0.00057	B		mg/L	0.0002	0.001	08/04/21 16:36	mfm
Boron, dissolved	M200.7 ICP	1	0.038	B		mg/L	0.03	0.1	07/28/21 15:41	kja
Boron, total	M200.7 ICP	1	0.038	B		mg/L	0.03	0.1	08/02/21 10:58	kja
Calcium, dissolved	M200.7 ICP	1	31.0			mg/L	0.1	0.5	07/28/21 15:41	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 15:41	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 10:58	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 15:41	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/02/21 10:58	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/28/21 15:41	kja
Iron, total	M200.7 ICP	1	0.249			mg/L	0.06	0.15	08/02/21 10:58	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 11:57	mfm
Lead, total	M200.8 ICP-MS	1	0.00020	B		mg/L	0.0001	0.0005	08/04/21 16:36	mfm
Magnesium, dissolved	M200.7 ICP	1	8.77			mg/L	0.2	1	07/28/21 15:41	kja
Manganese, dissolved	M200.7 ICP	1	0.019	B		mg/L	0.01	0.05	07/28/21 15:41	kja
Manganese, total	M200.7 ICP	1	0.035	B		mg/L	0.01	0.05	08/02/21 10:58	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 14:22	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 12:19	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00314			mg/L	0.0002	0.0005	08/03/21 11:57	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00316			mg/L	0.0002	0.0005	08/04/21 16:36	mfm
Potassium, dissolved	M200.7 ICP	1	1.88			mg/L	0.2	1	07/28/21 15:41	kja
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/03/21 11:57	mfm
Selenium, total	M200.8 ICP-MS	1	0.00012	B		mg/L	0.0001	0.00025	08/09/21 14:15	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:26	bsu
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:36	mfm
Sodium, dissolved	M200.7 ICP	1	21.2			mg/L	0.2	1	07/28/21 15:41	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 11:57	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:36	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0200			mg/L	0.0001	0.0005	08/03/21 11:57	mfm
Uranium, total	M200.8 ICP-MS	1	0.0224			mg/L	0.0001	0.0005	08/04/21 16:36	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 15:41	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 10:58	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-WEIR

ACZ Sample ID: **L67260-01**

Date Sampled: 07/19/21 09:45

Date Received: 07/21/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	76.8			mg/L	2	20	07/28/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Total Alkalinity		1	76.8			mg/L	2	20	07/28/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-1.5			%			08/18/21 0:00	calc
Sum of Anions			3.4			meq/L			08/18/21 0:00	calc
Sum of Cations			3.3			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	47.9			mg/L	0.5	2	08/13/21 12:03	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/02/21 16:03	md
Fluoride	SM4500F-C	1	0.31	B		mg/L	0.15	0.35	08/03/21 15:39	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.030	B	*	mg/L	0.02	0.1	08/06/21 2:17	pjb
Phosphate, total	Calculation based on total Phosphorus		0.0372	B		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.012	B	*	mg/L	0.01	0.05	07/31/21 1:13	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	216			mg/L	20	40	07/21/21 15:20	emk
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	07/22/21 12:01	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	22.9		*	mg/L	1	5	08/06/21 12:01	syw
TDS (calculated)	Calculation		181			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.19						08/18/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-LLHG

ACZ Sample ID: **L67260-02**

Date Sampled: 07/19/21 10:10

Date Received: 07/21/21

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						07/29/21 10:07	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/26/21 12:01	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/03/21 8:40	mfm
Total Hot Plate Digestion	M200.2 ICP								08/01/21 14:44	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-LLHG

ACZ Sample ID: **L67260-02**

Date Sampled: 07/19/21 10:10

Date Received: 07/21/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	07/28/21 15:44	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/02/21 11:01	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 16:28	bsu
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/04/21 16:38	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	0.00047	B		mg/L	0.0002	0.001	08/03/21 11:59	mfm
Arsenic, total	M200.8 ICP-MS	1	0.00052	B		mg/L	0.0002	0.001	08/04/21 16:38	mfm
Boron, dissolved	M200.7 ICP	1	0.032	B		mg/L	0.03	0.1	07/28/21 15:44	kja
Boron, total	M200.7 ICP	1	0.037	B		mg/L	0.03	0.1	08/02/21 11:01	kja
Calcium, dissolved	M200.7 ICP	1	30.6			mg/L	0.1	0.5	07/28/21 15:44	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 15:44	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:01	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 15:44	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/02/21 11:01	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/28/21 15:44	kja
Iron, total	M200.7 ICP	1	0.147	B		mg/L	0.06	0.15	08/02/21 11:01	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 11:59	mfm
Lead, total	M200.8 ICP-MS	1	0.00013	B		mg/L	0.0001	0.0005	08/04/21 16:38	mfm
Magnesium, dissolved	M200.7 ICP	1	8.62			mg/L	0.2	1	07/28/21 15:44	kja
Manganese, dissolved	M200.7 ICP	1	0.027	B		mg/L	0.01	0.05	07/28/21 15:44	kja
Manganese, total	M200.7 ICP	1	0.019	B		mg/L	0.01	0.05	08/02/21 11:01	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 14:23	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 12:22	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00244			mg/L	0.0002	0.0005	08/03/21 11:59	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00248			mg/L	0.0002	0.0005	08/04/21 16:38	mfm
Potassium, dissolved	M200.7 ICP	1	1.81			mg/L	0.2	1	07/28/21 15:44	kja
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/03/21 11:59	mfm
Selenium, total	M200.8 ICP-MS	1	0.00011	B		mg/L	0.0001	0.00025	08/09/21 14:17	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:28	bsu
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:38	mfm
Sodium, dissolved	M200.7 ICP	1	20.5			mg/L	0.2	1	07/28/21 15:44	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 11:59	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:38	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0206			mg/L	0.0001	0.0005	08/03/21 11:59	mfm
Uranium, total	M200.8 ICP-MS	1	0.0230			mg/L	0.0001	0.0005	08/04/21 16:38	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 15:44	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:01	kja

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Project ID: 3100-PO205

Sample ID: SW-LLHG

ACZ Sample ID: **L67260-02**

Date Sampled: 07/19/21 10:10

Date Received: 07/21/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	74.4			mg/L	2	20	07/28/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Total Alkalinity		1	74.4			mg/L	2	20	07/28/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-1.5			%			08/18/21 0:00	calc
Sum of Anions			3.3			meq/L			08/18/21 0:00	calc
Sum of Cations			3.2			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	47.9			mg/L	0.5	2	08/13/21 12:03	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/02/21 16:04	md
Fluoride	SM4500F-C	1	0.30	B		mg/L	0.15	0.35	08/03/21 15:47	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.035	B	*	mg/L	0.02	0.1	08/06/21 2:19	pjb
Phosphate, total	Calculation based on total Phosphorus		0.0403	B		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.013	B	*	mg/L	0.01	0.05	07/31/21 1:15	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	206			mg/L	20	40	07/21/21 15:22	emk
Residue, Non-Filterable (TSS) @105C	SM2540D	1	5.0	B	*	mg/L	5	20	07/22/21 12:02	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	20.8		*	mg/L	1	5	08/06/21 12:01	syw
TDS (calculated)	Calculation		176			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.17						08/18/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-ARH

ACZ Sample ID: **L67260-03**

Date Sampled: 07/19/21 10:40

Date Received: 07/21/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						07/29/21 10:16	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/26/21 12:21	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/03/21 8:40	mfm
Total Hot Plate Digestion	M200.2 ICP								08/01/21 14:58	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-ARH

ACZ Sample ID: **L67260-03**

Date Sampled: 07/19/21 10:40

Date Received: 07/21/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	07/28/21 15:53	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/02/21 11:04	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 16:30	bsu
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/04/21 16:40	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	0.00059	B		mg/L	0.0002	0.001	08/03/21 12:05	mfm
Arsenic, total	M200.8 ICP-MS	1	0.00057	B		mg/L	0.0002	0.001	08/04/21 16:40	mfm
Boron, dissolved	M200.7 ICP	1	0.033	B		mg/L	0.03	0.1	07/28/21 15:53	kja
Boron, total	M200.7 ICP	1	0.037	B		mg/L	0.03	0.1	08/02/21 11:04	kja
Calcium, dissolved	M200.7 ICP	1	31.1			mg/L	0.1	0.5	07/28/21 15:53	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 15:53	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:04	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 15:53	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/02/21 11:04	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/28/21 15:53	kja
Iron, total	M200.7 ICP	1	0.111	B		mg/L	0.06	0.15	08/02/21 11:04	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 12:05	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:40	mfm
Magnesium, dissolved	M200.7 ICP	1	8.80			mg/L	0.2	1	07/28/21 15:53	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 15:53	kja
Manganese, total	M200.7 ICP	1	0.012	B		mg/L	0.01	0.05	08/02/21 11:04	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 14:24	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 12:23	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00203			mg/L	0.0002	0.0005	08/03/21 12:05	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00194			mg/L	0.0002	0.0005	08/04/21 16:40	mfm
Potassium, dissolved	M200.7 ICP	1	1.93			mg/L	0.2	1	07/28/21 15:53	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00012	B		mg/L	0.0001	0.00025	08/03/21 12:05	mfm
Selenium, total	M200.8 ICP-MS	1	0.00013	B		mg/L	0.0001	0.00025	08/09/21 14:19	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:30	bsu
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:40	mfm
Sodium, dissolved	M200.7 ICP	1	21.0			mg/L	0.2	1	07/28/21 15:53	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 12:05	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:40	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0207			mg/L	0.0001	0.0005	08/03/21 12:05	mfm
Uranium, total	M200.8 ICP-MS	1	0.0234			mg/L	0.0001	0.0005	08/04/21 16:40	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 15:53	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:04	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-ARH

ACZ Sample ID: **L67260-03**

Date Sampled: 07/19/21 10:40

Date Received: 07/21/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	72.7			mg/L	2	20	07/28/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Total Alkalinity		1	72.7			mg/L	2	20	07/28/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			1.5			%			08/18/21 0:00	calc
Sum of Anions			3.2			meq/L			08/18/21 0:00	calc
Sum of Cations			3.3			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	47.6			mg/L	0.5	2	08/13/21 12:03	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/02/21 16:05	md
Fluoride	SM4500F-C	1	0.30	B		mg/L	0.15	0.35	08/03/21 15:55	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.038	B	*	mg/L	0.02	0.1	08/06/21 2:20	pjb
Phosphate, total	Calculation based on total Phosphorus		0.0341	B		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.011	B	*	mg/L	0.01	0.05	07/31/21 1:17	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	202			mg/L	20	40	07/21/21 15:24	emk
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	07/22/21 12:04	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	20.2		*	mg/L	1	5	08/06/21 12:01	syw
TDS (calculated)	Calculation		175			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.15						08/18/21 0:00	calc

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Project ID: 3100-PO205
 Sample ID: SW-FBRG

ACZ Sample ID: **L67260-04**
 Date Sampled: 07/19/21 11:15
 Date Received: 07/21/21
 Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						07/30/21 12:17	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/26/21 12:31	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/03/21 8:40	mfm
Total Hot Plate Digestion	M200.2 ICP								08/01/21 15:40	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-FBRG

ACZ Sample ID: **L67260-04**

Date Sampled: 07/19/21 11:15

Date Received: 07/21/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	07/28/21 15:57	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/02/21 11:13	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 16:35	bsu
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/04/21 16:42	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	0.00052	B		mg/L	0.0002	0.001	08/03/21 12:06	mfm
Arsenic, total	M200.8 ICP-MS	1	0.00059	B		mg/L	0.0002	0.001	08/04/21 16:42	mfm
Boron, dissolved	M200.7 ICP	1	0.032	B		mg/L	0.03	0.1	07/28/21 15:57	kja
Boron, total	M200.7 ICP	1	0.038	B		mg/L	0.03	0.1	08/02/21 11:13	kja
Calcium, dissolved	M200.7 ICP	1	29.9			mg/L	0.1	0.5	07/28/21 15:57	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 15:57	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:13	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 15:57	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/02/21 11:13	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/28/21 15:57	kja
Iron, total	M200.7 ICP	1	0.137	B		mg/L	0.06	0.15	08/02/21 11:13	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 12:06	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:42	mfm
Magnesium, dissolved	M200.7 ICP	1	8.31			mg/L	0.2	1	07/28/21 15:57	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 15:57	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/02/21 11:13	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 14:25	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 12:24	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00133			mg/L	0.0002	0.0005	08/03/21 12:06	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00137			mg/L	0.0002	0.0005	08/04/21 16:42	mfm
Potassium, dissolved	M200.7 ICP	1	1.72			mg/L	0.2	1	07/28/21 15:57	kja
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/03/21 12:06	mfm
Selenium, total	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.00025	08/04/21 16:42	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:35	bsu
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:42	mfm
Sodium, dissolved	M200.7 ICP	1	19.0			mg/L	0.2	1	07/28/21 15:57	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 12:06	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:42	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0206			mg/L	0.0001	0.0005	08/03/21 12:06	mfm
Uranium, total	M200.8 ICP-MS	1	0.0239			mg/L	0.0001	0.0005	08/04/21 16:42	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 15:57	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:13	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-FBRG

ACZ Sample ID: **L67260-04**

Date Sampled: 07/19/21 11:15

Date Received: 07/21/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	70.2			mg/L	2	20	07/28/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Total Alkalinity		1	70.2			mg/L	2	20	07/28/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			0.0			%			08/18/21 0:00	calc
Sum of Anions			3.1			meq/L			08/18/21 0:00	calc
Sum of Cations			3.1			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	48.1			mg/L	0.5	2	08/13/21 12:03	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/02/21 17:00	md
Fluoride	SM4500F-C	1	0.28	B		mg/L	0.15	0.35	08/03/21 15:58	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.038	B	*	mg/L	0.02	0.1	08/06/21 2:22	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	07/31/21 1:18	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	194			mg/L	20	40	07/21/21 15:25	emk
Residue, Non-Filterable (TSS) @105C	SM2540D	1	5.0	B	*	mg/L	5	20	07/22/21 12:06	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	16.3		*	mg/L	1	5	08/06/21 12:01	syw
TDS (calculated)	Calculation		166			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.17						08/18/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-BPL

ACZ Sample ID: **L67260-05**

Date Sampled: 07/19/21 12:50

Date Received: 07/21/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						07/29/21 10:26	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/26/21 12:42	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/03/21 8:40	mfm
Total Hot Plate Digestion	M200.2 ICP								08/01/21 15:54	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-BPL

ACZ Sample ID: **L67260-05**

Date Sampled: 07/19/21 12:50

Date Received: 07/21/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	07/28/21 16:06	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/02/21 11:16	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 16:37	bsu
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/04/21 16:44	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	0.00054	B		mg/L	0.0002	0.001	08/09/21 16:37	bsu
Arsenic, total	M200.8 ICP-MS	1	0.00061	B		mg/L	0.0002	0.001	08/04/21 16:44	mfm
Boron, dissolved	M200.7 ICP	1	0.033	B		mg/L	0.03	0.1	07/28/21 16:06	kja
Boron, total	M200.7 ICP	1	0.034	B		mg/L	0.03	0.1	08/02/21 11:16	kja
Calcium, dissolved	M200.7 ICP	1	29.0			mg/L	0.1	0.5	07/28/21 16:06	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 16:06	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:16	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 16:06	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/02/21 11:16	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/28/21 16:06	kja
Iron, total	M200.7 ICP	1	0.124	B		mg/L	0.06	0.15	08/02/21 11:16	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 12:21	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:44	mfm
Magnesium, dissolved	M200.7 ICP	1	8.07			mg/L	0.2	1	07/28/21 16:06	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 16:06	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/02/21 11:16	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 14:28	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 12:25	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00119			mg/L	0.0002	0.0005	08/03/21 12:21	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00129			mg/L	0.0002	0.0005	08/04/21 16:44	mfm
Potassium, dissolved	M200.7 ICP	1	1.64			mg/L	0.2	1	07/28/21 16:06	kja
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/03/21 12:21	mfm
Selenium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/09/21 14:21	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:37	bsu
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:44	mfm
Sodium, dissolved	M200.7 ICP	1	18.5			mg/L	0.2	1	07/28/21 16:06	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 12:21	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:44	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0191			mg/L	0.0001	0.0005	08/03/21 12:21	mfm
Uranium, total	M200.8 ICP-MS	1	0.0219			mg/L	0.0001	0.0005	08/04/21 16:44	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 16:06	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:16	kja

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Project ID: 3100-PO205

Sample ID: SW-BPL

ACZ Sample ID: **L67260-05**

Date Sampled: 07/19/21 12:50

Date Received: 07/21/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	69.4			mg/L	2	20	07/28/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Total Alkalinity		1	69.4			mg/L	2	20	07/28/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-1.6			%			08/18/21 0:00	calc
Sum of Anions			3.1			meq/L			08/18/21 0:00	calc
Sum of Cations			3			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	48.6			mg/L	0.5	2	08/13/21 12:03	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/02/21 16:06	md
Fluoride	SM4500F-C	1	0.28	B		mg/L	0.15	0.35	08/03/21 16:06	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.040	B	*	mg/L	0.02	0.1	08/06/21 2:23	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	07/31/21 1:20	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	200			mg/L	20	40	07/21/21 15:27	emk
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	07/22/21 12:08	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	14.9		*	mg/L	1	5	08/06/21 12:01	syw
TDS (calculated)	Calculation		163			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.23						08/18/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-NWRP

ACZ Sample ID: **L67260-06**

Date Sampled: 07/19/21 13:25

Date Received: 07/21/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						07/29/21 10:35	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/26/21 12:52	emh
Total Hot Plate Digestion	M200.2 ICP								08/01/21 16:07	kja
Total Hot Plate Digestion	M200.2 ICP-MS								08/03/21 8:40	mfm

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Project ID: 3100-PO205

Sample ID: SW-NWRP

ACZ Sample ID: **L67260-06**

Date Sampled: 07/19/21 13:25

Date Received: 07/21/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	07/28/21 16:09	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/02/21 11:19	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 16:39	bsu
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/04/21 16:50	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 16:39	bsu
Arsenic, total	M200.8 ICP-MS	1	0.00025	B		mg/L	0.0002	0.001	08/04/21 16:50	mfm
Boron, dissolved	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	07/28/21 16:09	kja
Boron, total	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	08/02/21 11:19	kja
Calcium, dissolved	M200.7 ICP	1	32.9			mg/L	0.1	0.5	07/28/21 16:09	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 16:09	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:19	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 16:09	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/02/21 11:19	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/28/21 16:09	kja
Iron, total	M200.7 ICP	1	0.164			mg/L	0.06	0.15	08/02/21 11:19	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 12:22	mfm
Lead, total	M200.8 ICP-MS	1	0.00013	B		mg/L	0.0001	0.0005	08/04/21 16:50	mfm
Magnesium, dissolved	M200.7 ICP	1	8.84			mg/L	0.2	1	07/28/21 16:09	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 16:09	kja
Manganese, total	M200.7 ICP	1	0.014	B		mg/L	0.01	0.05	08/02/21 11:19	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 14:29	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 12:27	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00079			mg/L	0.0002	0.0005	08/03/21 12:22	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00090			mg/L	0.0002	0.0005	08/04/21 16:50	mfm
Potassium, dissolved	M200.7 ICP	1	1.83			mg/L	0.2	1	07/28/21 16:09	kja
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/03/21 12:22	mfm
Selenium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/09/21 14:26	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:39	bsu
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:50	mfm
Sodium, dissolved	M200.7 ICP	1	16.2			mg/L	0.2	1	07/28/21 16:09	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 12:22	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:50	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.00325			mg/L	0.0001	0.0005	08/03/21 12:22	mfm
Uranium, total	M200.8 ICP-MS	1	0.00369			mg/L	0.0001	0.0005	08/04/21 16:50	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 16:09	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:19	kja

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Project ID: 3100-PO205

Sample ID: SW-NWRP

ACZ Sample ID: **L67260-06**

Date Sampled: 07/19/21 13:25

Date Received: 07/21/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	66.5			mg/L	2	20	07/28/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Total Alkalinity		1	66.5			mg/L	2	20	07/28/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-1.6			%			08/18/21 0:00	calc
Sum of Anions			3.2			meq/L			08/18/21 0:00	calc
Sum of Cations			3.1			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	56.2			mg/L	0.5	2	08/13/21 12:03	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/02/21 16:07	md
Fluoride	SM4500F-C	1	0.32	B		mg/L	0.15	0.35	08/03/21 16:21	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.043	B	*	mg/L	0.02	0.1	08/06/21 2:24	pjb
Phosphate, total	Calculation based on total Phosphorus		0.0341	B		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.011	B	*	mg/L	0.01	0.05	07/31/21 1:21	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	222			mg/L	20	40	07/21/21 19:49	jck
Residue, Non-Filterable (TSS) @105C	SM2540D	1	7.0	B	*	mg/L	5	20	07/22/21 14:25	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	12.8		*	mg/L	1	5	08/06/21 12:01	syw
TDS (calculated)	Calculation		170			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.31						08/18/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-AWD

ACZ Sample ID: **L67260-07**

Date Sampled: 07/19/21 13:55

Date Received: 07/21/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						07/29/21 10:44	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/26/21 13:02	emh
Total Hot Plate Digestion	M200.2 ICP								08/01/21 16:21	kja
Total Hot Plate Digestion	M200.2 ICP-MS								08/03/21 8:40	mfm

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-AWD

ACZ Sample ID: **L67260-07**

Date Sampled: 07/19/21 13:55

Date Received: 07/21/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	07/28/21 16:12	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/02/21 11:29	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 16:40	bsu
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/04/21 16:56	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 16:40	bsu
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/04/21 16:56	mfm
Boron, dissolved	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	07/28/21 16:12	kja
Boron, total	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	08/02/21 11:29	kja
Calcium, dissolved	M200.7 ICP	1	32.0			mg/L	0.1	0.5	07/28/21 16:12	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 16:12	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:29	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 16:12	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/02/21 11:29	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/28/21 16:12	kja
Iron, total	M200.7 ICP	1	0.090	B		mg/L	0.06	0.15	08/02/21 11:29	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 12:24	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:56	mfm
Magnesium, dissolved	M200.7 ICP	1	8.42			mg/L	0.2	1	07/28/21 16:12	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 16:12	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/02/21 11:29	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 14:32	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 12:28	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00050	B		mg/L	0.0002	0.0005	08/03/21 12:24	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00054			mg/L	0.0002	0.0005	08/04/21 16:56	mfm
Potassium, dissolved	M200.7 ICP	1	1.76			mg/L	0.2	1	07/28/21 16:12	kja
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/03/21 12:24	mfm
Selenium, total	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.00025	08/04/21 16:56	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:40	bsu
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:56	mfm
Sodium, dissolved	M200.7 ICP	1	16.1			mg/L	0.2	1	07/28/21 16:12	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/03/21 12:24	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/04/21 16:56	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.00111			mg/L	0.0001	0.0005	08/03/21 12:24	mfm
Uranium, total	M200.8 ICP-MS	1	0.00127			mg/L	0.0001	0.0005	08/04/21 16:56	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 16:12	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/02/21 11:29	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-AWD

ACZ Sample ID: **L67260-07**

Date Sampled: 07/19/21 13:55

Date Received: 07/21/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	64.5			mg/L	2	20	07/28/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/28/21 0:00	emk
Total Alkalinity		1	64.5			mg/L	2	20	07/28/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-3.2			%			08/18/21 0:00	calc
Sum of Anions			3.2			meq/L			08/18/21 0:00	calc
Sum of Cations			3.0			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	57.0			mg/L	0.5	2	08/13/21 12:03	syw
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/02/21 16:07	md
Fluoride	SM4500F-C	1	0.36			mg/L	0.15	0.35	08/03/21 16:36	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.021	B	*	mg/L	0.02	0.1	08/06/21 2:30	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	07/31/21 1:49	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	230			mg/L	20	40	07/21/21 19:51	jck
Residue, Non-Filterable (TSS) @105C	SM2540D	1	5.0	B	*	mg/L	5	20	07/22/21 14:27	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	12.2		*	mg/L	1	5	08/06/21 12:03	syw
TDS (calculated)	Calculation		167			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.38						08/18/21 0:00	calc

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.
(5)	Standard Methods for the Examination of Water and Wastewater.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5)	If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

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ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3

SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524234													
WG524234PBW1	PBW	07/28/21 17:21				U	mg/L		-20	20			
WG524234LCSW3	LCSW	07/28/21 17:40	WC210721-3	820.0001		804.8	mg/L	98	90	110			
WG524234LCSW6	LCSW	07/28/21 21:22	WC210721-3	820.0001		822.7	mg/L	100	90	110			
WG524234PBW2	PBW	07/28/21 21:29				U	mg/L		-20	20			
L67332-01DUP	DUP	07/29/21 0:33			473	487.6	mg/L				3	20	
WG524234LCSW9	LCSW	07/29/21 0:52	WC210721-3	820.0001		811.9	mg/L	99	90	110			
WG524234PBW3	PBW	07/29/21 0:59				U	mg/L		-20	20			
WG524234LCSW12	LCSW	07/29/21 4:15	WC210721-3	820.0001		813.6	mg/L	99	90	110			
WG524234PBW4	PBW	07/29/21 4:22				U	mg/L		-20	20			
WG524234LCSW15	LCSW	07/29/21 7:47	WC210721-3	820.0001		816.7	mg/L	100	90	110			

Aluminum, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	2		1.962	mg/L	98	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.15	0.15			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	.250325		.218	mg/L	87	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	200.410325		209	mg/L	104	1	200			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	1.0008		.967	mg/L	97	85	115			
L67260-02AS	AS	07/28/21 15:47	II210714-2	1.0008	U	.975	mg/L	97	85	115			
L67260-02ASD	ASD	07/28/21 15:50	II210714-2	1.0008	U	.974	mg/L	97	85	115	0	20	
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	1		.927	mg/L	93	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.15	0.15			
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	1		.921	mg/L	92	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.15	0.15			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	1		.925	mg/L	93	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.15	0.15			

Aluminum, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524442													
WG524442ICV	ICV	08/02/21 10:34	II210801-1	2		1.902	mg/L	95	95	105			
WG524442ICB	ICB	08/02/21 10:40				U	mg/L		-0.15	0.15			
WG524442PQV	PQV	08/02/21 10:43	II210707-2	.250325		.214	mg/L	85	70	130			
WG524442SIC	SIC	08/02/21 10:46	II210707-5	200.410325		199.3	mg/L	99	1	200			
WG524421LRB	LRB	08/02/21 10:52				U	mg/L		-0.11	0.11			
WG524421LFB	LFB	08/02/21 10:55	II210714-2	1.0008		.996	mg/L	100	85	115			
L67260-03LFM	LFM	08/02/21 11:07	II210714-2	1.0008	U	1.057	mg/L	106	70	130			
L67260-03LFMD	LFMD	08/02/21 11:10	II210714-2	1.0008	U	1.072	mg/L	107	70	130	1	20	
WG524442CCV1	CCV	08/02/21 11:22	II210719-1	1		.944	mg/L	94	90	110			
WG524442CCB1	CCB	08/02/21 11:25				U	mg/L		-0.15	0.15			
WG524442CCV2	CCV	08/02/21 11:59	II210719-1	1		.951	mg/L	95	90	110			
WG524442CCB2	CCB	08/02/21 12:02				U	mg/L		-0.15	0.15			
WG524442CCV3	CCV	08/02/21 12:23	II210719-1	1		.936	mg/L	94	90	110			
WG524442CCB3	CCB	08/02/21 12:26				U	mg/L		-0.15	0.15			

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ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Antimony, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524921													
WG524921ICV	ICV	08/09/21 16:13	MS210727-2	.0201		.01859	mg/L	92	90	110			
WG524921ICB	ICB	08/09/21 16:15				U	mg/L		-0.00088	0.00088			
WG524921LFB	LFB	08/09/21 16:17	MS210727-5	.01		.00979	mg/L	98	85	115			
L67236-01AS	AS	08/09/21 16:20	MS210727-5	.5	U	.50284	mg/L	101	70	130			
L67236-01ASD	ASD	08/09/21 16:22	MS210727-5	.5	U	.51047	mg/L	102	70	130	2	20	
WG524921CCV1	CCV	08/09/21 16:31	MS210806-2	.0125		.01228	mg/L	98	90	110			
WG524921CCB1	CCB	08/09/21 16:33				U	mg/L		-0.0012	0.0012			
WG524921CCV2	CCV	08/09/21 16:53	MS210806-2	.0125		.01216	mg/L	97	90	110			
WG524921CCB2	CCB	08/09/21 16:55				U	mg/L		-0.0012	0.0012			

Antimony, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524692													
WG524692ICV	ICV	08/04/21 16:29	MS210727-2	.0201		.01875	mg/L	93	90	110			
WG524692ICB	ICB	08/04/21 16:30				U	mg/L		-0.0012	0.0012			
WG524524LRB	LRB	08/04/21 16:32				U	mg/L		-0.00088	0.00088			
WG524524LFB	LFB	08/04/21 16:34	MS210727-5	.01		.00989	mg/L	99	85	115			
L67260-05LFM	LFM	08/04/21 16:46	MS210727-5	.01	U	.00991	mg/L	99	70	130			
L67260-05LFMD	LFMD	08/04/21 16:48	MS210727-5	.01	U	.01006	mg/L	101	70	130	2	20	
WG524692CCV1	CCV	08/04/21 16:52	MS210719-2	.0125		.01258	mg/L	101	90	110			
WG524692CCB1	CCB	08/04/21 16:54				U	mg/L		-0.0012	0.0012			
WG524692CCV2	CCV	08/04/21 17:15	MS210719-2	.0125		.01273	mg/L	102	90	110			
WG524692CCB2	CCB	08/04/21 17:17				U	mg/L		-0.0012	0.0012			
WG524692CCV3	CCV	08/04/21 17:31	MS210719-2	.0125		.01235	mg/L	99	90	110			
WG524692CCB3	CCB	08/04/21 17:33				U	mg/L		-0.0012	0.0012			

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ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524554													
WG524554ICV	ICV	08/03/21 11:46	MS210727-2	.05		.049	mg/L	98	90	110			
WG524554ICB	ICB	08/03/21 11:48				U	mg/L		-0.00044	0.00044			
WG524554LFB	LFB	08/03/21 11:50	MS210727-5	.05005		.04367	mg/L	87	85	115			
L67260-02AS	AS	08/03/21 12:01	MS210727-5	.05005	.00047	.05015	mg/L	99	70	130			
L67260-02ASD	ASD	08/03/21 12:03	MS210727-5	.05005	.00047	.04651	mg/L	92	70	130	8	20	
WG524554CCV1	CCV	08/03/21 12:08	MS210719-2	.1001		.09359	mg/L	93	90	110			
WG524554CCB1	CCB	08/03/21 12:10				U	mg/L		-0.0006	0.0006			
WG524554CCB2	CCB	08/03/21 12:41				U	mg/L		-0.0006	0.0006			
WG524554CCB3	CCB	08/03/21 12:53				U	mg/L		-0.0006	0.0006			

WG524921

WG524921ICV	ICV	08/09/21 16:13	MS210727-2	.05		.05123	mg/L	102	90	110			
WG524921ICB	ICB	08/09/21 16:15				U	mg/L		-0.00044	0.00044			
WG524921LFB	LFB	08/09/21 16:17	MS210727-5	.05005		.05117	mg/L	102	85	115			
L67236-01AS	AS	08/09/21 16:20	MS210727-5	2.5025	.53	3.09892	mg/L	103	70	130			
L67236-01ASD	ASD	08/09/21 16:22	MS210727-5	2.5025	.53	3.15194	mg/L	105	70	130	2	20	
WG524921CCV1	CCV	08/09/21 16:31	MS210806-2	.1001		.0984	mg/L	98	90	110			
WG524921CCB1	CCB	08/09/21 16:33				U	mg/L		-0.0006	0.0006			
WG524921CCV2	CCV	08/09/21 16:53	MS210806-2	.1001		.09918	mg/L	99	90	110			
WG524921CCB2	CCB	08/09/21 16:55				U	mg/L		-0.0006	0.0006			
WG524921CCV3	CCV	08/09/21 17:10	MS210806-2	.1001		.09751	mg/L	97	90	110			
WG524921CCB3	CCB	08/09/21 17:11				U	mg/L		-0.0006	0.0006			

Arsenic, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524692													
WG524692ICV	ICV	08/04/21 16:29	MS210727-2	.05		.0491	mg/L	98	90	110			
WG524692ICB	ICB	08/04/21 16:30				.00044	mg/L		-0.0006	0.0006			
WG524524LRB	LRB	08/04/21 16:32				U	mg/L		-0.00044	0.00044			
WG524524LFB	LFB	08/04/21 16:34	MS210727-5	.05005		.04891	mg/L	98	85	115			
L67260-05LFM	LFM	08/04/21 16:46	MS210727-5	.05005	.00061	.04954	mg/L	98	70	130			
L67260-05LFMD	LFMD	08/04/21 16:48	MS210727-5	.05005	.00061	.04976	mg/L	98	70	130	0	20	
WG524692CCV1	CCV	08/04/21 16:52	MS210719-2	.1001		.09898	mg/L	99	90	110			
WG524692CCB1	CCB	08/04/21 16:54				U	mg/L		-0.0006	0.0006			
WG524692CCV2	CCV	08/04/21 17:15	MS210719-2	.1001		.10009	mg/L	100	90	110			
WG524692CCB2	CCB	08/04/21 17:17				U	mg/L		-0.0006	0.0006			
WG524692CCV3	CCV	08/04/21 17:31	MS210719-2	.1001		.09768	mg/L	98	90	110			
WG524692CCB3	CCB	08/04/21 17:33				U	mg/L		-0.0006	0.0006			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Boron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	2		1.987	mg/L	99	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.09	0.09			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	.1001		.091	mg/L	91	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	.1001		.093	mg/L	93	80	120			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	.5005		.493	mg/L	99	85	115			
L67260-02AS	AS	07/28/21 15:47	II210714-2	.5005	.032	.531	mg/L	100	85	115			
L67260-02ASD	ASD	07/28/21 15:50	II210714-2	.5005	.032	.53	mg/L	100	85	115	0	20	
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	1		.971	mg/L	97	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.09	0.09			
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	1		.955	mg/L	96	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.09	0.09			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	1		.968	mg/L	97	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.09	0.09			

Boron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524442													
WG524442ICV	ICV	08/02/21 10:34	II210801-1	2		1.967	mg/L	98	95	105			
WG524442ICB	ICB	08/02/21 10:40				U	mg/L		-0.09	0.09			
WG524442PQV	PQV	08/02/21 10:43	II210707-2	.1001		.095	mg/L	95	70	130			
WG524442SIC	SIC	08/02/21 10:46	II210707-5	.1001		.09	mg/L	90	80	120			
WG524421LRB	LRB	08/02/21 10:52				U	mg/L		-0.066	0.066			
WG524421LFB	LFB	08/02/21 10:55	II210714-2	.5005		.521	mg/L	104	85	115			
L67260-03LFM	LFM	08/02/21 11:07	II210714-2	.5005	.037	.562	mg/L	105	70	130			
L67260-03LFMD	LFMD	08/02/21 11:10	II210714-2	.5005	.037	.567	mg/L	106	70	130	1	20	
WG524442CCV1	CCV	08/02/21 11:22	II210719-1	1		.989	mg/L	99	90	110			
WG524442CCB1	CCB	08/02/21 11:25				U	mg/L		-0.09	0.09			
WG524442CCV2	CCV	08/02/21 11:59	II210719-1	1		.998	mg/L	100	90	110			
WG524442CCB2	CCB	08/02/21 12:02				U	mg/L		-0.09	0.09			
WG524442CCV3	CCV	08/02/21 12:23	II210719-1	1		.987	mg/L	99	90	110			
WG524442CCB3	CCB	08/02/21 12:26				U	mg/L		-0.09	0.09			

Calcium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	100		100.35	mg/L	100	95	105			
WG524199ICB	ICB	07/28/21 15:17				.15	mg/L		-0.3	0.3			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	.50015		.5	mg/L	100	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	200.56015		202	mg/L	101	1	200			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	67.99734		68.51	mg/L	101	85	115			
L67260-02AS	AS	07/28/21 15:47	II210714-2	67.99734	30.6	97.23	mg/L	98	85	115			
L67260-02ASD	ASD	07/28/21 15:50	II210714-2	67.99734	30.6	97.52	mg/L	98	85	115	0	20	
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	50		49.14	mg/L	98	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.3	0.3			
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	50		48.33	mg/L	97	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.3	0.3			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	50		49.21	mg/L	98	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.3	0.3			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chloride

SM4500CI-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525247													
WG525247ICB	ICB	08/13/21 8:12				U	mg/L		-1.5	1.5			
WG525247ICV	ICV	08/13/21 8:12	WI210503-1	54.89		54.48	mg/L	99	90	110			
WG525247CCV1	CCV	08/13/21 12:03	WI210203-7	50.05		49.45	mg/L	99	90	110			
WG525247CCB1	CCB	08/13/21 12:03				U	mg/L		-1.5	1.5			
WG525247LFB1	LFB	08/13/21 12:03	WI200327-3	30.03		31.8	mg/L	106	90	110			
L67260-01AS	AS	08/13/21 12:03	WI200327-3	30.03	47.9	75.76	mg/L	93	90	110			
L67260-02DUP	DUP	08/13/21 12:03			47.9	47.41	mg/L				1	20	
WG525247CCV2	CCV	08/13/21 12:05	WI210203-7	50.05		49.81	mg/L	100	90	110			
WG525247CCB2	CCB	08/13/21 12:05				U	mg/L		-1.5	1.5			
WG525247CCV3	CCV	08/13/21 12:07	WI210203-7	50.05		49.35	mg/L	99	90	110			
WG525247CCB3	CCB	08/13/21 12:07				U	mg/L		-1.5	1.5			
WG525247CCV4	CCV	08/13/21 12:12	WI210203-7	50.05		49.53	mg/L	99	90	110			
WG525247CCB4	CCB	08/13/21 12:12				U	mg/L		-1.5	1.5			
WG525247CCV5	CCV	08/13/21 12:13	WI210203-7	50.05		48.91	mg/L	98	90	110			
WG525247CCB5	CCB	08/13/21 12:13				U	mg/L		-1.5	1.5			
WG525247CCV6	CCV	08/13/21 12:18	WI210203-7	50.05		49.18	mg/L	98	90	110			
WG525247CCB6	CCB	08/13/21 12:18				U	mg/L		-1.5	1.5			
WG525247CCV7	CCV	08/13/21 12:22	WI210203-7	50.05		49.41	mg/L	99	90	110			
WG525247CCB7	CCB	08/13/21 12:22				U	mg/L		-1.5	1.5			
WG525247CCV8	CCV	08/13/21 12:40	WI210203-7	50.05		49.36	mg/L	99	90	110			
WG525247CCB8	CCB	08/13/21 12:40				U	mg/L		-1.5	1.5			
WG525247LFB2	LFB	08/13/21 12:40	WI200327-3	30.03		30.64	mg/L	102	90	110			
WG525247CCV9	CCV	08/13/21 12:42	WI210203-7	50.05		49.41	mg/L	99	90	110			
WG525247CCB9	CCB	08/13/21 12:42				U	mg/L		-1.5	1.5			

Chromium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	2		1.954	mg/L	98	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.06	0.06			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	.0502		.039	mg/L	78	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	.1004		.109	mg/L	109	80	120			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	.502		.483	mg/L	96	85	115			
L67260-02AS	AS	07/28/21 15:47	II210714-2	.502	U	.485	mg/L	97	85	115			
L67260-02ASD	ASD	07/28/21 15:50	II210714-2	.502	U	.484	mg/L	96	85	115	0	20	
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	1		.961	mg/L	96	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.06	0.06			
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	1		.942	mg/L	94	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.06	0.06			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	1		.959	mg/L	96	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.06	0.06			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524442													
WG524442ICV	ICV	08/02/21 10:34	II210801-1	2		1.966	mg/L	98	95	105			
WG524442ICB	ICB	08/02/21 10:40				U	mg/L		-0.06	0.06			
WG524442PQV	PQV	08/02/21 10:43	II210707-2	.0502		.043	mg/L	86	70	130			
WG524442SIC	SIC	08/02/21 10:46	II210707-5	.1004		.09	mg/L	90	80	120			
WG524421LRB	LRB	08/02/21 10:52				U	mg/L		-0.044	0.044			
WG524421LFB	LFB	08/02/21 10:55	II210714-2	.502		.531	mg/L	106	85	115			
L67260-03LFM	LFM	08/02/21 11:07	II210714-2	.502	U	.526	mg/L	105	70	130			
L67260-03LFMD	LFMD	08/02/21 11:10	II210714-2	.502	U	.528	mg/L	105	70	130	0	20	
WG524442CCV1	CCV	08/02/21 11:22	II210719-1	1		.998	mg/L	100	90	110			
WG524442CCB1	CCB	08/02/21 11:25				U	mg/L		-0.06	0.06			
WG524442CCV2	CCV	08/02/21 11:59	II210719-1	1		1.015	mg/L	102	90	110			
WG524442CCB2	CCB	08/02/21 12:02				U	mg/L		-0.06	0.06			
WG524442CCV3	CCV	08/02/21 12:23	II210719-1	1		1	mg/L	100	90	110			
WG524442CCB3	CCB	08/02/21 12:26				U	mg/L		-0.06	0.06			

Copper, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	2		1.963	mg/L	98	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.03	0.03			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	.0502		.043	mg/L	86	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	.1004		.09	mg/L	90	80	120			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	.5		.485	mg/L	97	85	115			
L67260-02AS	AS	07/28/21 15:47	II210714-2	.5	U	.496	mg/L	99	85	115			
L67260-02ASD	ASD	07/28/21 15:50	II210714-2	.5	U	.493	mg/L	99	85	115	1	20	
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	1		.951	mg/L	95	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.03	0.03			
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	1		.944	mg/L	94	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.03	0.03			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	1		.954	mg/L	95	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.03	0.03			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524442													
WG524442ICV	ICV	08/02/21 10:34	II210801-1	2		1.927	mg/L	96	95	105			
WG524442ICB	ICB	08/02/21 10:40				U	mg/L		-0.03	0.03			
WG524442PQV	PQV	08/02/21 10:43	II210707-2	.0502		.043	mg/L	86	70	130			
WG524442SIC	SIC	08/02/21 10:46	II210707-5	.1004		.089	mg/L	89	80	120			
WG524421LRB	LRB	08/02/21 10:52				U	mg/L		-0.022	0.022			
WG524421LFB	LFB	08/02/21 10:55	II210714-2	.5		.518	mg/L	104	85	115			
L67260-03LFM	LFM	08/02/21 11:07	II210714-2	.5	U	.521	mg/L	104	70	130			
L67260-03LFMD	LFMD	08/02/21 11:10	II210714-2	.5	U	.518	mg/L	104	70	130	1	20	
WG524442CCV1	CCV	08/02/21 11:22	II210719-1	1		.973	mg/L	97	90	110			
WG524442CCB1	CCB	08/02/21 11:25				U	mg/L		-0.03	0.03			
WG524442CCV2	CCV	08/02/21 11:59	II210719-1	1		.976	mg/L	98	90	110			
WG524442CCB2	CCB	08/02/21 12:02				U	mg/L		-0.03	0.03			
WG524442CCV3	CCV	08/02/21 12:23	II210719-1	1		.975	mg/L	98	90	110			
WG524442CCB3	CCB	08/02/21 12:26				U	mg/L		-0.03	0.03			

Cyanide, WAD

SM4500-CN I,E-Colorimetric w/ distillation

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524503													
WG524503ICV	ICV	08/02/21 16:00	WI210802-7	.3		.3039	mg/L	101	90	110			
WG524503ICB	ICB	08/02/21 16:01				U	mg/L		-0.003	0.003			
WG524266LRB	LRB	08/02/21 16:01				U	mg/L		-0.003	0.003			
WG524266LFB	LFB	08/02/21 16:02	WI210717-5	.2		.1943	mg/L	97	90	110			
WG524503CCV1	CCV	08/02/21 16:10	WI210802-6	.25		.2534	mg/L	101	90	110			
WG524503CCB1	CCB	08/02/21 16:11				U	mg/L		-0.003	0.003			
L67272-06DUP	DUP	08/02/21 16:12			U	U	mg/L				0	20	RA
L67293-01LFM	LFM	08/02/21 16:14	WI210717-5	.2	U	.2005	mg/L	100	90	110			
WG524503CCV2	CCV	08/02/21 16:20	WI210802-6	.25		.2545	mg/L	102	90	110			
WG524503CCB2	CCB	08/02/21 16:21				U	mg/L		-0.003	0.003			
WG524503CCV3	CCV	08/02/21 16:29	WI210802-6	.25		.2563	mg/L	103	90	110			
WG524503CCB3	CCB	08/02/21 16:29				U	mg/L		-0.003	0.003			
WG524518													
WG524518ICV	ICV	08/02/21 16:56	WI210802-7	.3		.3036	mg/L	101	90	110			
WG524518ICB	ICB	08/02/21 16:57				U	mg/L		-0.003	0.003			
WG524345LRB	LRB	08/02/21 16:58				U	mg/L		-0.003	0.003			
WG524345LFB	LFB	08/02/21 16:59	WI210717-5	.2		.1916	mg/L	96	90	110			
WG524518CCV1	CCV	08/02/21 17:06	WI210802-6	.25		.2512	mg/L	100	90	110			
WG524518CCB1	CCB	08/02/21 17:07				U	mg/L		-0.003	0.003			
L67324-13DUP	DUP	08/02/21 17:09			U	U	mg/L				0	20	RA
L67325-02LFM	LFM	08/02/21 17:11	WI210717-5	.2	U	.1894	mg/L	95	90	110			
WG524518CCV2	CCV	08/02/21 17:17	WI210802-6	.25		.2514	mg/L	101	90	110			
WG524518CCB2	CCB	08/02/21 17:17				U	mg/L		-0.003	0.003			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride

SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524567													
WG524567ICV1	ICV	08/03/21 13:33	WC210803-1	2.002		2	mg/L	100	90	110			
WG524567ICB	ICB	08/03/21 13:39				U	mg/L		-0.3	0.3			
WG524567PQV	PQV	08/03/21 13:42	WC210803-3	.3514		.37	mg/L	105	70	130			
WG524567LFB1	LFB	08/03/21 13:45	WC210803-9	5.02		4.91	mg/L	98	90	110			
WG524567CCV1	CCV	08/03/21 14:49	WC210803-1	2.002		2.08	mg/L	104	90	110			
WG524567CCB1	CCB	08/03/21 14:56				U	mg/L		-0.3	0.3			
WG524567CCV2	CCV	08/03/21 16:09	WC210803-1	2.002		2.1	mg/L	105	90	110			
WG524567CCB2	CCB	08/03/21 16:17				U	mg/L		-0.3	0.3			
L67260-06AS	AS	08/03/21 16:29	WC210803-9	5.02	.32	5.19	mg/L	97	90	110			
L67260-06ASD	ASD	08/03/21 16:32	WC210803-9	5.02	.32	5.28	mg/L	99	90	110	2	20	
WG524567LFB2	LFB	08/03/21 16:42	WC210803-9	5.02		5.05	mg/L	101	90	110			
WG524567CCV3	CCV	08/03/21 17:17	WC210803-1	2.002		2.19	mg/L	109	90	110			
WG524567CCB3	CCB	08/03/21 17:22				U	mg/L		-0.3	0.3			
WG524567CCV4	CCV	08/03/21 18:34	WC210803-1	2.002		2.06	mg/L	103	90	110			
WG524567CCB4	CCB	08/03/21 18:42				U	mg/L		-0.3	0.3			
WG524567CCV5	CCV	08/03/21 20:15	WC210803-1	2.002		2.05	mg/L	102	90	110			
WG524567CCB5	CCB	08/03/21 20:23				U	mg/L		-0.3	0.3			

Iron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	2		1.976	mg/L	99	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.18	0.18			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	.15027		.148	mg/L	98	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	200.17027		195.3	mg/L	98	1	200			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	1.0001		.993	mg/L	99	85	115			
L67260-02AS	AS	07/28/21 15:47	II210714-2	1.0001	U	1.026	mg/L	103	85	115			
L67260-02ASD	ASD	07/28/21 15:50	II210714-2	1.0001	U	1.02	mg/L	102	85	115	1	20	
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	1		.964	mg/L	96	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.18	0.18			
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	1		.951	mg/L	95	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.18	0.18			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	1		.962	mg/L	96	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.18	0.18			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524442													
WG524442ICV	ICV	08/02/21 10:34	II210801-1	2		1.952	mg/L	98	95	105			
WG524442ICB	ICB	08/02/21 10:40				U	mg/L		-0.18	0.18			
WG524442PQV	PQV	08/02/21 10:43	II210707-2	.15027		.131	mg/L	87	70	130			
WG524442SIC	SIC	08/02/21 10:46	II210707-5	200.17027		192.8	mg/L	96	1	200			
WG524421LRB	LRB	08/02/21 10:52				U	mg/L		-0.132	0.132			
WG524421LFB	LFB	08/02/21 10:55	II210714-2	1.0001		1.055	mg/L	105	85	115			
L67260-03LFM	LFM	08/02/21 11:07	II210714-2	1.0001	.111	1.185	mg/L	107	70	130			
L67260-03LFMD	LFMD	08/02/21 11:10	II210714-2	1.0001	.111	1.183	mg/L	107	70	130	0	20	
WG524442CCV1	CCV	08/02/21 11:22	II210719-1	1		1.053	mg/L	105	90	110			
WG524442CCB1	CCB	08/02/21 11:25				U	mg/L		-0.18	0.18			
WG524442CCV2	CCV	08/02/21 11:59	II210719-1	1		1.078	mg/L	108	90	110			
WG524442CCB2	CCB	08/02/21 12:02				U	mg/L		-0.18	0.18			
WG524442CCV3	CCV	08/02/21 12:23	II210719-1	1		1.007	mg/L	101	90	110			
WG524442CCB3	CCB	08/02/21 12:26				U	mg/L		-0.18	0.18			

Lead, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524554													
WG524554ICV	ICV	08/03/21 11:46	MS210727-2	.05		.05313	mg/L	106	90	110			
WG524554ICB	ICB	08/03/21 11:48				U	mg/L		-0.00022	0.00022			
WG524554LFB	LFB	08/03/21 11:50	MS210727-5	.05005		.04819	mg/L	96	85	115			
L67260-02AS	AS	08/03/21 12:01	MS210727-5	.05005	U	.04843	mg/L	97	70	130			
L67260-02ASD	ASD	08/03/21 12:03	MS210727-5	.05005	U	.04796	mg/L	96	70	130	1	20	
WG524554CCV1	CCV	08/03/21 12:08	MS210719-2	.25025		.24032	mg/L	96	90	110			
WG524554CCB1	CCB	08/03/21 12:10				U	mg/L		-0.0003	0.0003			
WG524554CCV2	CCV	08/03/21 12:39	MS210719-2	.25025		.22875	mg/L	91	90	110			
WG524554CCB2	CCB	08/03/21 12:41				U	mg/L		-0.0003	0.0003			
WG524554CCV3	CCV	08/03/21 12:52	MS210719-2	.25025		.23205	mg/L	93	90	110			
WG524554CCB3	CCB	08/03/21 12:53				.00014	mg/L		-0.0003	0.0003			

Lead, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524692													
WG524692ICV	ICV	08/04/21 16:29	MS210727-2	.05		.04836	mg/L	97	90	110			
WG524692ICB	ICB	08/04/21 16:30				U	mg/L		-0.0003	0.0003			
WG524692LRB	LRB	08/04/21 16:32				U	mg/L		-0.00022	0.00022			
WG524692LFB	LFB	08/04/21 16:34	MS210727-5	.05005		.04815	mg/L	96	85	115			
L67260-05LFM	LFM	08/04/21 16:46	MS210727-5	.05005	U	.05134	mg/L	103	70	130			
L67260-05LFMD	LFMD	08/04/21 16:48	MS210727-5	.05005	U	.05183	mg/L	104	70	130	1	20	
WG524692CCV1	CCV	08/04/21 16:52	MS210719-2	.25025		.25877	mg/L	103	90	110			
WG524692CCB1	CCB	08/04/21 16:54				U	mg/L		-0.0003	0.0003			
WG524692CCV2	CCV	08/04/21 17:15	MS210719-2	.25025		.25345	mg/L	101	90	110			
WG524692CCB2	CCB	08/04/21 17:17				U	mg/L		-0.0003	0.0003			
WG524692CCV3	CCV	08/04/21 17:31	MS210719-2	.25025		.25141	mg/L	100	90	110			
WG524692CCB3	CCB	08/04/21 17:33				U	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	100		97.33	mg/L	97	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.6	0.6			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	1.0001		1.04	mg/L	104	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	201.0201		208.7	mg/L	104	1	200			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	50.00074		47.89	mg/L	96	85	115			
L67260-02AS	AS	07/28/21 15:47	II210714-2	50.00074	8.62	56.41	mg/L	96	85	115			
L67260-02ASD	ASD	07/28/21 15:50	II210714-2	50.00074	8.62	56.24	mg/L	95	85	115	0	20	
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	50		47.14	mg/L	94	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.6	0.6			
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	50		46.43	mg/L	93	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.6	0.6			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	50		46.92	mg/L	94	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.6	0.6			

Manganese, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	2		1.957	mg/L	98	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.03	0.03			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	.05005		.043	mg/L	86	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	50.10005		47.69	mg/L	95	1	200			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	.5005		.492	mg/L	98	85	115			
L67260-02AS	AS	07/28/21 15:47	II210714-2	.5005	.027	.527	mg/L	100	85	115			
L67260-02ASD	ASD	07/28/21 15:50	II210714-2	.5005	.027	.524	mg/L	99	85	115	1	20	
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	1		.962	mg/L	96	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.03	0.03			
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	1		.948	mg/L	95	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.03	0.03			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	1		.957	mg/L	96	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.03	0.03			

Manganese, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524442													
WG524442ICV	ICV	08/02/21 10:34	II210801-1	2		1.923	mg/L	96	95	105			
WG524442ICB	ICB	08/02/21 10:40				U	mg/L		-0.03	0.03			
WG524442PQV	PQV	08/02/21 10:43	II210707-2	.05005		.042	mg/L	84	70	130			
WG524442SIC	SIC	08/02/21 10:46	II210707-5	50.10005		45.53	mg/L	91	1	200			
WG524421LRB	LRB	08/02/21 10:52				U	mg/L		-0.022	0.022			
WG524421LFB	LFB	08/02/21 10:55	II210714-2	.5005		.52	mg/L	104	85	115			
L67260-03LFM	LFM	08/02/21 11:07	II210714-2	.5005	.012	.539	mg/L	105	70	130			
L67260-03LFMD	LFMD	08/02/21 11:10	II210714-2	.5005	.012	.539	mg/L	105	70	130	0	20	
WG524442CCV1	CCV	08/02/21 11:22	II210719-1	1		.986	mg/L	99	90	110			
WG524442CCB1	CCB	08/02/21 11:25				U	mg/L		-0.03	0.03			
WG524442CCV2	CCV	08/02/21 11:59	II210719-1	1		.991	mg/L	99	90	110			
WG524442CCB2	CCB	08/02/21 12:02				U	mg/L		-0.03	0.03			
WG524442CCV3	CCV	08/02/21 12:23	II210719-1	1		.978	mg/L	98	90	110			
WG524442CCB3	CCB	08/02/21 12:26				U	mg/L		-0.03	0.03			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, dissolved

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524176													
WG524176ICV	ICV	07/29/21 11:33	HG210701-3	.00501		.0051	mg/L	102	90	110			
WG524176ICB	ICB	07/29/21 11:34				U	mg/L		-0.0006	0.0006			
WG524177													
WG524177CCV1	CCV	07/29/21 14:07	HG210701-3	.00501		.00495	mg/L	99	90	110			
WG524177CCB1	CCB	07/29/21 14:08				U	mg/L		-0.0002	0.0002			
WG524177PQV	PQV	07/29/21 14:09	HG210728-2	.001001		.00081	mg/L	81	70	130			
WG524177LRB	LRB	07/29/21 14:10				U	mg/L		-0.00044	0.00044			
WG524177LFB	LFB	07/29/21 14:11	HG210709-9	.002002		.00186	mg/L	93	85	115			
L67167-02LFM	LFM	07/29/21 14:13	HG210728-3	.002002	U	.00185	mg/L	92	85	115			
L67167-02LFMD	LFMD	07/29/21 14:14	HG210728-3	.002002	U	.00187	mg/L	93	85	115	1	20	
WG524177CCV2	CCV	07/29/21 14:18	HG210701-3	.00501		.005	mg/L	100	90	110			
WG524177CCB2	CCB	07/29/21 14:19				U	mg/L		-0.0002	0.0002			
L67260-04LFM	LFM	07/29/21 14:26	HG210728-3	.002002	U	.00189	mg/L	94	85	115			
L67260-04LFMD	LFMD	07/29/21 14:27	HG210728-3	.002002	U	.00181	mg/L	90	85	115	4	20	
WG524177CCV3	CCV	07/29/21 14:30	HG210701-3	.00501		.00485	mg/L	97	90	110			
WG524177CCB3	CCB	07/29/21 14:31				U	mg/L		-0.0002	0.0002			
WG524177CCV4	CCV	07/29/21 14:38	HG210701-3	.00501		.00485	mg/L	97	90	110			
WG524177CCB4	CCB	07/29/21 14:39				U	mg/L		-0.0002	0.0002			

Mercury, total

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524176													
WG524176ICV	ICV	07/29/21 11:33	HG210701-3	.00501		.0051	mg/L	102	90	110			
WG524176ICB	ICB	07/29/21 11:34				U	mg/L		-0.0006	0.0006			
WG524178													
WG524178CCV1	CCV	07/29/21 12:14	HG210701-3	.00501		.00496	mg/L	99	90	110			
WG524178CCB1	CCB	07/29/21 12:15				U	mg/L		-0.0002	0.0002			
WG524178PQV	PQV	07/29/21 12:16	HG210728-2	.001001		.00091	mg/L	91	70	130			
WG524178LRB	LRB	07/29/21 12:17				U	mg/L		-0.00044	0.00044			
WG524178LFB	LFB	07/29/21 12:18	HG210728-3	.002002		.00193	mg/L	96	85	115			
L67260-01LFM	LFM	07/29/21 12:20	HG210728-3	.002002	U	.00193	mg/L	96	85	115			
L67260-01LFMD	LFMD	07/29/21 12:21	HG210728-3	.002002	U	.00185	mg/L	92	85	115	4	20	
WG524178CCV2	CCV	07/29/21 12:26	HG210701-3	.00501		.00496	mg/L	99	90	110			
WG524178CCB2	CCB	07/29/21 12:27				U	mg/L		-0.0002	0.0002			
WG524178CCV3	CCV	07/29/21 12:37	HG210701-3	.00501		.00486	mg/L	97	90	110			
WG524178CCB3	CCB	07/29/21 12:38				U	mg/L		-0.0002	0.0002			
WG524178CCV4	CCV	07/29/21 12:45	HG210701-3	.00501		.00488	mg/L	97	90	110			
WG524178CCB4	CCB	07/29/21 12:46				U	mg/L		-0.0002	0.0002			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Molybdenum, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524554													
WG524554ICV	ICV	08/03/21 11:46	MS210727-2	.01992		.02026	mg/L	102	90	110			
WG524554ICB	ICB	08/03/21 11:48				U	mg/L		-0.00044	0.00044			
WG524554LFB	LFB	08/03/21 11:50	MS210727-5	.0501		.04427	mg/L	88	85	115			
L67260-02AS	AS	08/03/21 12:01	MS210727-5	.0501	.00244	.0485	mg/L	92	70	130			
L67260-02ASD	ASD	08/03/21 12:03	MS210727-5	.0501	.00244	.04668	mg/L	88	70	130	4	20	
WG524554CCV1	CCV	08/03/21 12:08	MS210719-2	.1002		.09579	mg/L	96	90	110			
WG524554CCB1	CCB	08/03/21 12:10				U	mg/L		-0.0006	0.0006			
WG524554CCV2	CCV	08/03/21 12:39	MS210719-2	.1002		.09217	mg/L	92	90	110			
WG524554CCB2	CCB	08/03/21 12:41				U	mg/L		-0.0006	0.0006			
WG524554CCV3	CCV	08/03/21 12:52	MS210719-2	.1002		.0907	mg/L	91	90	110			
WG524554CCB3	CCB	08/03/21 12:53				U	mg/L		-0.0006	0.0006			

Molybdenum, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524692													
WG524692ICV	ICV	08/04/21 16:29	MS210727-2	.01992		.01879	mg/L	94	90	110			
WG524692ICB	ICB	08/04/21 16:30				U	mg/L		-0.0006	0.0006			
WG524524LRB	LRB	08/04/21 16:32				U	mg/L		-0.00044	0.00044			
WG524524LFB	LFB	08/04/21 16:34	MS210727-5	.0501		.0465	mg/L	93	85	115			
L67260-05LFM	LFM	08/04/21 16:46	MS210727-5	.0501	.00129	.04827	mg/L	94	70	130			
L67260-05LFMD	LFMD	08/04/21 16:48	MS210727-5	.0501	.00129	.04841	mg/L	94	70	130	0	20	
WG524692CCV1	CCV	08/04/21 16:52	MS210719-2	.1002		.10131	mg/L	101	90	110			
WG524692CCB1	CCB	08/04/21 16:54				U	mg/L		-0.0006	0.0006			
WG524692CCV2	CCV	08/04/21 17:15	MS210719-2	.1002		.101	mg/L	101	90	110			
WG524692CCB2	CCB	08/04/21 17:17				U	mg/L		-0.0006	0.0006			
WG524692CCV3	CCV	08/04/21 17:31	MS210719-2	.1002		.09947	mg/L	99	90	110			
WG524692CCB3	CCB	08/04/21 17:33				U	mg/L		-0.0006	0.0006			

Nitrate/Nitrite as N

M353.2 - H2SO4 preserved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524782													
WG524782ICV	ICV	08/05/21 23:58	WI210603-7	2.416		2.314	mg/L	96	90	110			
WG524782ICB	ICB	08/06/21 0:00				U	mg/L		-0.02	0.02			
WG524787													
WG524787CCV1	CCV	08/06/21 2:08	WI210804-1	2		2.028	mg/L	101	90	110			
WG524787CCB1	CCB	08/06/21 2:12				U	mg/L		-0.02	0.02			
WG524787LFB	LFB	08/06/21 2:13	WI210331-13	2		1.993	mg/L	100	90	110			
L65076-18AS	AS	08/06/21 2:15	WI210331-13	2	U	2.016	mg/L	101	90	110			
L67260-01DUP	DUP	08/06/21 2:18			.03	.037	mg/L				21	20	RA
WG524787CCV2	CCV	08/06/21 2:26	WI210804-1	2		2.008	mg/L	100	90	110			
WG524787CCB2	CCB	08/06/21 2:29				U	mg/L		-0.02	0.02			
WG524787CCV3	CCV	08/06/21 2:43	WI210804-1	2		2.001	mg/L	100	90	110			
WG524787CCB3	CCB	08/06/21 2:46				U	mg/L		-0.02	0.02			
WG524787CCV4	CCV	08/06/21 2:55	WI210804-1	2		2.017	mg/L	101	90	110			
WG524787CCB4	CCB	08/06/21 2:58				U	mg/L		-0.02	0.02			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Phosphorus, total M365.1 - Auto Ascorbic Acid (digest)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524401													
WG524401ICV	ICV	07/31/21 0:40	WI210603-3	.65228		.649	mg/L	99	90	110			
WG524401ICB	ICB	07/31/21 0:42				U	mg/L		-0.01	0.01			
WG524404													
WG524404CCV1	CCV	07/31/21 1:08	WI210603-4	.5		.5	mg/L	100	90	110			
WG524404CCB1	CCB	07/31/21 1:09				U	mg/L		-0.01	0.01			
WG523973LRB	LRB	07/31/21 1:10				U	mg/L		-0.01	0.01			
WG523973LFB	LFB	07/31/21 1:11	WI210716-2	.5		.465	mg/L	93	90	110			
L67260-01LFM	LFM	07/31/21 1:14	WI210716-2	.5	.012	.469	mg/L	91	90	110			
L67260-02DUP	DUP	07/31/21 1:16			.013	.011	mg/L				17	20	RA
WG524404CCV2	CCV	07/31/21 1:22	WI210603-4	.5		.499	mg/L	100	90	110			
WG524404CCB2	CCB	07/31/21 1:23				U	mg/L		-0.01	0.01			
WG524404CCV4	CCV	07/31/21 1:47	WI210603-4	.5		.481	mg/L	96	90	110			
WG524404CCB4	CCB	07/31/21 1:48				U	mg/L		-0.01	0.01			
WG524404CCV5	CCV	07/31/21 2:01	WI210603-4	.5		.495	mg/L	99	90	110			
WG524404CCB5	CCB	07/31/21 2:02				U	mg/L		-0.01	0.01			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	20		19.91	mg/L	100	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.6	0.6			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	1.004		.99	mg/L	99	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	1.004		1.01	mg/L	101	80	120			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	99.99574		98.1	mg/L	98	85	115			
L67260-02AS	AS	07/28/21 15:47	II210714-2	99.99574	1.81	101.2	mg/L	99	85	115			
L67260-02ASD	ASD	07/28/21 15:50	II210714-2	99.99574	1.81	100.7	mg/L	99	85	115	0	20	
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	10		9.67	mg/L	97	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.6	0.6			
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	10		9.59	mg/L	96	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.6	0.6			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	10		9.65	mg/L	97	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG523759													
WG523759PBW	PBW	07/21/21 14:45				U	mg/L		-20	20			
WG523759LCSW	LCSW	07/21/21 14:46	PCN63563	1000		990	mg/L	99	80	120			
L67260-05DUP	DUP	07/21/21 15:29			200	196	mg/L				2	10	
WG523776													
WG523776PBW	PBW	07/21/21 19:10				U	mg/L		-20	20			
WG523776LCSW	LCSW	07/21/21 19:12	PCN63563	1000		996	mg/L	100	80	120			
L67266-04DUP	DUP	07/21/21 20:10			536	534	mg/L				0	10	

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ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Residue, Non-Filterable (TSS) @105C SM2540D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG523821													
WG523821PBW	PBW	07/22/21 11:30				U	mg/L		-5	5			
WG523821LCSW	LCSW	07/22/21 11:31	PCN63563	100		110	mg/L	110	80	120			
L67260-05DUP	DUP	07/22/21 12:09			U	6	mg/L				200	10	RA
WG523843													
WG523843PBW	PBW	07/22/21 14:00				U	mg/L		-5	5			
WG523843LCSW	LCSW	07/22/21 14:01	PCN63561	100		104	mg/L	104	80	120			
L67292-03DUP	DUP	07/22/21 14:44			9	11	mg/L				20	10	RA

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524554													
WG524554ICV	ICV	08/03/21 11:46	MS210727-2	.05		.05082	mg/L	102	90	110			
WG524554ICB	ICB	08/03/21 11:48				U	mg/L		-0.00022	0.00022			
WG524554LFB	LFB	08/03/21 11:50	MS210727-5	.05		.04419	mg/L	88	85	115			
L67260-02AS	AS	08/03/21 12:01	MS210727-5	.05	U	.05035	mg/L	101	70	130			
L67260-02ASD	ASD	08/03/21 12:03	MS210727-5	.05	U	.04895	mg/L	98	70	130	3	20	
WG524554CCV1	CCV	08/03/21 12:08	MS210719-2	.25		.24063	mg/L	96	90	110			
WG524554CCB1	CCB	08/03/21 12:10				.00015	mg/L		-0.0003	0.0003			
WG524554CCV2	CCV	08/03/21 12:39	MS210719-2	.25		.23005	mg/L	92	90	110			
WG524554CCB2	CCB	08/03/21 12:41				.00016	mg/L		-0.0003	0.0003			
WG524554CCV3	CCV	08/03/21 12:52	MS210719-2	.25		.23395	mg/L	94	90	110			
WG524554CCB3	CCB	08/03/21 12:53				.00017	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524692													
WG524692ICV	ICV	08/04/21 16:29	MS210727-2	.05		.0498	mg/L	100	90	110			
WG524692ICB	ICB	08/04/21 16:30				.00012	mg/L		-0.0003	0.0003			
WG524524LRB	LRB	08/04/21 16:32				U	mg/L		-0.00022	0.00022			
WG524524LFB	LFB	08/04/21 16:34	MS210727-5	.05		.04917	mg/L	98	85	115			
L67260-05LFM	LFM	08/04/21 16:46	MS210727-5	.05	.00011	.0491	mg/L	98	70	130			
L67260-05LFMD	LFMD	08/04/21 16:48	MS210727-5	.05	.00011	.05034	mg/L	100	70	130	2	20	
WG524692CCV1	CCV	08/04/21 16:52	MS210719-2	.25		.25291	mg/L	101	90	110			
WG524692CCB1	CCB	08/04/21 16:54				.00051	mg/L		-0.0003	0.0003			BE
WG524692CCV2	CCV	08/04/21 17:15	MS210719-2	.25		.24831	mg/L	99	90	110			
WG524692CCB2	CCB	08/04/21 17:17				.00052	mg/L		-0.0003	0.0003			BE
WG524692CCV3	CCV	08/04/21 17:31	MS210719-2	.25		.25378	mg/L	102	90	110			
WG524692CCB3	CCB	08/04/21 17:33				.00055	mg/L		-0.0003	0.0003			BE

WG524929

WG524929ICV	ICV	08/09/21 14:08	MS210727-2	.05		.04941	mg/L	99	90	110			
WG524929ICB	ICB	08/09/21 14:10				.00014	mg/L		-0.0003	0.0003			
WG524524LRB	LRB	08/09/21 14:12				U	mg/L		-0.00022	0.00022			
WG524524LFB	LFB	08/09/21 14:14	MS210727-5	.05		.04329	mg/L	87	85	115			
L67260-05LFM	LFM	08/09/21 14:23	MS210727-5	.05	U	.0472	mg/L	94	70	130			
L67260-05LFMD	LFMD	08/09/21 14:24	MS210727-5	.05	U	.04602	mg/L	92	70	130	3	20	
WG524929CCV1	CCV	08/09/21 14:28	MS210806-2	.25		.24449	mg/L	98	90	110			
WG524929CCB1	CCB	08/09/21 14:30				.0002	mg/L		-0.0003	0.0003			
WG524929CCV2	CCV	08/09/21 14:48	MS210806-2	.25		.23224	mg/L	93	90	110			
WG524929CCB2	CCB	08/09/21 14:49				.00012	mg/L		-0.0003	0.0003			
WG524929CCV3	CCV	08/09/21 15:00	MS210806-2	.25		.22786	mg/L	91	90	110			

Silver, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524921													
WG524921ICV	ICV	08/09/21 16:13	MS210727-2	.02		.01961	mg/L	98	90	110			
WG524921ICB	ICB	08/09/21 16:15				U	mg/L		-0.00022	0.00022			
WG524921LFB	LFB	08/09/21 16:17	MS210727-5	.01002		.01015	mg/L	101	85	115			
L67236-01AS	AS	08/09/21 16:20	MS210727-5	.501	U	.439	mg/L	88	70	130			
L67236-01ASD	ASD	08/09/21 16:22	MS210727-5	.501	U	.46326	mg/L	92	70	130	5	20	
WG524921CCV1	CCV	08/09/21 16:31	MS210806-2	.02505		.02498	mg/L	100	90	110			
WG524921CCB1	CCB	08/09/21 16:33				U	mg/L		-0.0003	0.0003			
WG524921CCV2	CCV	08/09/21 16:53	MS210806-2	.02505		.02477	mg/L	99	90	110			
WG524921CCB2	CCB	08/09/21 16:55				U	mg/L		-0.0003	0.0003			

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ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Silver, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524692													
WG524692ICV	ICV	08/04/21 16:29	MS210727-2	.02		.01809	mg/L	90	90	110			
WG524692ICB	ICB	08/04/21 16:30				U	mg/L		-0.0003	0.0003			
WG524524LRB	LRB	08/04/21 16:32				U	mg/L		-0.00022	0.00022			
WG524524LFB	LFB	08/04/21 16:34	MS210727-5	.01002		.00954	mg/L	95	85	115			
L67260-05LFM	LFM	08/04/21 16:46	MS210727-5	.01002	U	.00901	mg/L	90	70	130			
L67260-05LFMD	LFMD	08/04/21 16:48	MS210727-5	.01002	U	.00903	mg/L	90	70	130	0	20	
WG524692CCV1	CCV	08/04/21 16:52	MS210719-2	.02505		.02466	mg/L	98	90	110			
WG524692CCB1	CCB	08/04/21 16:54				U	mg/L		-0.0003	0.0003			
WG524692CCV2	CCV	08/04/21 17:15	MS210719-2	.02505		.02449	mg/L	98	90	110			
WG524692CCB2	CCB	08/04/21 17:17				U	mg/L		-0.0003	0.0003			
WG524692CCV3	CCV	08/04/21 17:31	MS210719-2	.02505		.02402	mg/L	96	90	110			
WG524692CCB3	CCB	08/04/21 17:33				U	mg/L		-0.0003	0.0003			

Sodium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	100		100.78	mg/L	101	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.6	0.6			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	1.0053		1.01	mg/L	100	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	1.0053		1.09	mg/L	108	80	120			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	100.0109		98.94	mg/L	99	85	115			
L67260-02AS	AS	07/28/21 15:47	II210714-2	100.0109	20.5	118.9	mg/L	98	85	115			
L67260-02ASD	ASD	07/28/21 15:50	II210714-2	100.0109	20.5	118.8	mg/L	98	85	115	0	20	
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	50		49.14	mg/L	98	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.6	0.6			
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	50		48.38	mg/L	97	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.6	0.6			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	50		48.98	mg/L	98	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.6	0.6			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate

D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524726													
WG524726ICB	ICB	08/06/21 11:13				U	mg/L		-3	3			
WG524726ICV	ICV	08/06/21 11:13	WI210802-8	20.46		19.6	mg/L	96	90	110			
WG524726CCV1	CCV	08/06/21 12:00	WI210802-9	25		25.2	mg/L	101	90	110			
WG524726CCB1	CCB	08/06/21 12:00				U	mg/L		-3	3			
WG524726LFB	LFB	08/06/21 12:00	WI210105-3	10		9.9	mg/L	99	90	110			
L67260-01AS	AS	08/06/21 12:01	WI210105-3	10	22.9	31.3	mg/L	84	90	110			M2
WG524726CCV2	CCV	08/06/21 12:03	WI210802-9	25		24.8	mg/L	99	90	110			
WG524726CCB2	CCB	08/06/21 12:03				U	mg/L		-3	3			
WG524726CCV3	CCV	08/06/21 12:04	WI210802-9	25		24.8	mg/L	99	90	110			
WG524726CCB3	CCB	08/06/21 12:04				U	mg/L		-3	3			
WG524726CCV4	CCV	08/06/21 12:06	WI210802-9	25		24.6	mg/L	98	90	110			
WG524726CCB4	CCB	08/06/21 12:06				U	mg/L		-3	3			
WG524726CCV5	CCV	08/06/21 12:08	WI210802-9	25		24.8	mg/L	99	90	110			
WG524726CCB5	CCB	08/06/21 12:08				U	mg/L		-3	3			
WG524726CCV6	CCV	08/06/21 12:10	WI210802-9	25		24.7	mg/L	99	90	110			
WG524726CCB6	CCB	08/06/21 12:10				U	mg/L		-3	3			
WG524726CCV7	CCV	08/06/21 12:13	WI210802-9	25		24.8	mg/L	99	90	110			
WG524726CCB7	CCB	08/06/21 12:13				U	mg/L		-3	3			
WG524726CCV8	CCV	08/06/21 12:31	WI210802-9	25		25.1	mg/L	100	90	110			
WG524726CCB8	CCB	08/06/21 12:31				U	mg/L		-3	3			
WG524726CCV9	CCV	08/06/21 12:33	WI210802-9	25		24.5	mg/L	98	90	110			
WG524726CCB9	CCB	08/06/21 12:33				U	mg/L		-3	3			
WG524726CCV10	CCV	08/06/21 12:44	WI210802-9	25		24.9	mg/L	100	90	110			
WG524726CCB10	CCB	08/06/21 12:44				U	mg/L		-3	3			
L67236-01DUP	DUP	08/06/21 12:45			534	538.9	mg/L				1	20	
WG524726CCV11	CCV	08/06/21 12:46	WI210802-9	25		24.6	mg/L	98	90	110			
WG524726CCB11	CCB	08/06/21 12:46				U	mg/L		-3	3			

Thallium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524554													
WG524554ICV	ICV	08/03/21 11:46	MS210727-2	.05		.05347	mg/L	107	90	110			
WG524554ICB	ICB	08/03/21 11:48				U	mg/L		-0.00022	0.00022			
WG524554LFB	LFB	08/03/21 11:50	MS210727-5	.05		.04656	mg/L	93	85	115			
L67260-02AS	AS	08/03/21 12:01	MS210727-5	.05	U	.04738	mg/L	95	70	130			
L67260-02ASD	ASD	08/03/21 12:03	MS210727-5	.05	U	.04726	mg/L	95	70	130	0	20	
WG524554CCV1	CCV	08/03/21 12:08	MS210719-2	.1		.09618	mg/L	96	90	110			
WG524554CCB1	CCB	08/03/21 12:10				U	mg/L		-0.0003	0.0003			
WG524554CCV2	CCV	08/03/21 12:39	MS210719-2	.1		.09191	mg/L	92	90	110			
WG524554CCB2	CCB	08/03/21 12:41				U	mg/L		-0.0003	0.0003			
WG524554CCV3	CCV	08/03/21 12:52	MS210719-2	.1		.0932	mg/L	93	90	110			
WG524554CCB3	CCB	08/03/21 12:53				U	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Thallium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524692													
WG524692ICV	ICV	08/04/21 16:29	MS210727-2	.05		.05088	mg/L	102	90	110			
WG524692ICB	ICB	08/04/21 16:30				U	mg/L		-0.0003	0.0003			
WG524524LRB	LRB	08/04/21 16:32				U	mg/L		-0.00022	0.00022			
WG524524LFB	LFB	08/04/21 16:34	MS210727-5	.05		.04921	mg/L	98	85	115			
L67260-05LFM	LFM	08/04/21 16:46	MS210727-5	.05	U	.05335	mg/L	107	70	130			
L67260-05LFMD	LFMD	08/04/21 16:48	MS210727-5	.05	U	.05352	mg/L	107	70	130	0	20	
WG524692CCV1	CCV	08/04/21 16:52	MS210719-2	.1		.1035	mg/L	104	90	110			
WG524692CCB1	CCB	08/04/21 16:54				U	mg/L		-0.0003	0.0003			
WG524692CCV2	CCV	08/04/21 17:15	MS210719-2	.1		.1024	mg/L	102	90	110			
WG524692CCB2	CCB	08/04/21 17:17				U	mg/L		-0.0003	0.0003			
WG524692CCV3	CCV	08/04/21 17:31	MS210719-2	.1		.10051	mg/L	101	90	110			
WG524692CCB3	CCB	08/04/21 17:33				U	mg/L		-0.0003	0.0003			

Uranium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524554													
WG524554ICV	ICV	08/03/21 11:46	MS210727-2	.05		.05054	mg/L	101	90	110			
WG524554ICB	ICB	08/03/21 11:48				U	mg/L		-0.00022	0.00022			
WG524554LFB	LFB	08/03/21 11:50	MS210727-5	.05		.04457	mg/L	89	85	115			
L67260-02AS	AS	08/03/21 12:01	MS210727-5	.05	.0206	.06716	mg/L	93	70	130			
L67260-02ASD	ASD	08/03/21 12:03	MS210727-5	.05	.0206	.06662	mg/L	92	70	130	1	20	
WG524554CCV1	CCV	08/03/21 12:08	MS210719-2	.1		.09358	mg/L	94	90	110			
WG524554CCB1	CCB	08/03/21 12:10				U	mg/L		-0.0003	0.0003			
WG524554CCV2	CCV	08/03/21 12:39	MS210719-2	.1		.08973	mg/L	90	90	110			
WG524554CCB2	CCB	08/03/21 12:41				U	mg/L		-0.0003	0.0003			
WG524554CCV3	CCV	08/03/21 12:52	MS210719-2	.1		.09077	mg/L	91	90	110			
WG524554CCB3	CCB	08/03/21 12:53				U	mg/L		-0.0003	0.0003			

Uranium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524692													
WG524692ICV	ICV	08/04/21 16:29	MS210727-2	.05		.04953	mg/L	99	90	110			
WG524692ICB	ICB	08/04/21 16:30				U	mg/L		-0.0003	0.0003			
WG524524LRB	LRB	08/04/21 16:32				U	mg/L		-0.00022	0.00022			
WG524524LFB	LFB	08/04/21 16:34	MS210727-5	.05		.04871	mg/L	97	85	115			
L67260-05LFM	LFM	08/04/21 16:46	MS210727-5	.05	.0219	.07681	mg/L	110	70	130			
L67260-05LFMD	LFMD	08/04/21 16:48	MS210727-5	.05	.0219	.07746	mg/L	111	70	130	1	20	
WG524692CCV1	CCV	08/04/21 16:52	MS210719-2	.1		.10317	mg/L	103	90	110			
WG524692CCB1	CCB	08/04/21 16:54				U	mg/L		-0.0003	0.0003			
WG524692CCV2	CCV	08/04/21 17:15	MS210719-2	.1		.1026	mg/L	103	90	110			
WG524692CCB2	CCB	08/04/21 17:17				U	mg/L		-0.0003	0.0003			
WG524692CCV3	CCV	08/04/21 17:31	MS210719-2	.1		.09998	mg/L	100	90	110			
WG524692CCB3	CCB	08/04/21 17:33				U	mg/L		-0.0003	0.0003			

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ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	2		1.989	mg/L	99	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.06	0.06			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	.05015		.042	mg/L	84	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	.1003		.1	mg/L	100	80	120			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	.50045		.51	mg/L	102	85	115			
L67260-02AS	AS	07/28/21 15:47	II210714-2	.50045	U	.508	mg/L	102	85	115			
L67260-02ASD	ASD	07/28/21 15:50	II210714-2	.50045	U	.502	mg/L	100	85	115	1	20	
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	1		.964	mg/L	96	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.06	0.06			
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	1		.94	mg/L	94	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.06	0.06			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	1		.948	mg/L	95	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.06	0.06			

Zinc, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524442													
WG524442ICV	ICV	08/02/21 10:34	II210801-1	2		1.962	mg/L	98	95	105			
WG524442ICB	ICB	08/02/21 10:40				U	mg/L		-0.06	0.06			
WG524442PQV	PQV	08/02/21 10:43	II210707-2	.05015		.046	mg/L	92	70	130			
WG524442SIC	SIC	08/02/21 10:46	II210707-5	.1003		.098	mg/L	98	80	120			
WG524421LRB	LRB	08/02/21 10:52				U	mg/L		-0.044	0.044			
WG524421LFB	LFB	08/02/21 10:55	II210714-2	.50045		.537	mg/L	107	85	115			
L67260-03LFM	LFM	08/02/21 11:07	II210714-2	.50045	U	.535	mg/L	107	70	130			
L67260-03LFMD	LFMD	08/02/21 11:10	II210714-2	.50045	U	.547	mg/L	109	70	130	2	20	
WG524442CCV1	CCV	08/02/21 11:22	II210719-1	1		.983	mg/L	98	90	110			
WG524442CCB1	CCB	08/02/21 11:25				U	mg/L		-0.06	0.06			
WG524442CCV2	CCV	08/02/21 11:59	II210719-1	1		1.012	mg/L	101	90	110			
WG524442CCB2	CCB	08/02/21 12:02				U	mg/L		-0.06	0.06			
WG524442CCV3	CCV	08/02/21 12:23	II210719-1	1		.982	mg/L	98	90	110			
WG524442CCB3	CCB	08/02/21 12:26				U	mg/L		-0.06	0.06			

Ensero Solutions

ACZ Project ID: **L67260**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67260-01	WG524503	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524787	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524404	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG523821	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG524726	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L67260-02	WG524503	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524787	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524404	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG523821	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG524726	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L67260-03	WG524503	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524787	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524404	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG523821	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG524726	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L67260-04	WG524518	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524787	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524404	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG523821	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG524692	Selenium, total	M200.8 ICP-MS	BE	Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
	WG524726	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

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Ensero Solutions

ACZ Project ID: **L67260**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67260-05	WG524503	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524787	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524404	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG523821	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524726	Sulfate	SM2540D D516-02/-07/-11 - TURBIDIMETRIC	Z3 M2	Sample volume yielded a residue less than 2.5 mg Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L67260-06	WG524503	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524787	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524404	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG523843	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524726	Sulfate	SM2540D D516-02/-07/-11 - TURBIDIMETRIC	Z3 M2	Sample volume yielded a residue less than 2.5 mg Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L67260-07	WG524503	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524787	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524404	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG523843	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524692	Selenium, total	SM2540D M200.8 ICP-MS	Z3 BE	Sample volume yielded a residue less than 2.5 mg Target analyte in continuing calibration blank (CCB) at or above the acceptance criteria. Target analyte was not detected in the sample [< MDL].
	WG524726	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-WEIR

Locator:

ACZ Sample ID: **L67260-01**

Date Sampled: 07/19/21 9:45

Date Received: 07/21/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 11:03		0.31			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:12		16	4.2	16	pCi/L	*	ess
Gross Beta	08/04/21 0:12		8.8	3.1	18	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/10/21 0:04		0.38	0.13	0.12	pCi/L		djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/10/21 0:02		0.31	0.11	0.09	pCi/L		djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/16/21 17:00		0.93	0.71	1.7	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-LLHG

Locator:

ACZ Sample ID: **L67260-02**

Date Sampled: 07/19/21 10:10

Date Received: 07/21/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 11:03		0.40			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:15		15	4	8.8	pCi/L	*	ess
Gross Beta	08/04/21 0:15		8.4	2.9	6.9	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/10/21 0:07		0.39	0.14	0.19	pCi/L		djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/10/21 0:05		0.4	0.17	0.19	pCi/L		djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/16/21 17:00		0.76	1.6	3.8	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-ARH

Locator:

ACZ Sample ID: **L67260-03**

Date Sampled: 07/19/21 10:40

Date Received: 07/21/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 11:03		0			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:17		16	4.2	6.7	pCi/L	*	ess
Gross Beta	08/04/21 0:17		7.8	2.9	5.2	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/10/21 0:10		0.18	0.09	0.03	pCi/L		djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/10/21 0:08		0.13	0.15	0.19	pCi/L		djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/16/21 17:00		0.2	0.72	1.8	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-FBRG

Locator:

ACZ Sample ID: **L67260-04**

Date Sampled: 07/19/21 11:15

Date Received: 07/21/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 11:03		0.35			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:18		21	4.7	5.7	pCi/L	*	ess
Gross Beta	08/04/21 0:18		9.1	3.2	9	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/10/21 0:12		0.26	0.14	0.11	pCi/L		djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/10/21 0:11		0.35	0.16	0.17	pCi/L		djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/17/21 13:31		0.15	0.67	1.6	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-BPL

Locator:

ACZ Sample ID: **L67260-05**

Date Sampled: 07/19/21 12:50

Date Received: 07/21/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 11:03		0.45			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:20		14	3.9	11	pCi/L	*	ess
Gross Beta	08/04/21 0:20		6.7	2.9	11	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/10/21 0:15		0.25	0.13	0.09	pCi/L		djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/10/21 0:14		0.45	0.17	0.16	pCi/L		djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/17/21 13:31		0.28	0.88	2.2	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-NWRP

Locator:

ACZ Sample ID: **L67260-06**

Date Sampled: 07/19/21 13:25

Date Received: 07/21/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 11:03		0.19			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:21		2.7	2	5.4	pCi/L	*	ess
Gross Beta	08/04/21 0:21		5.2	2.8	9.2	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/10/21 0:18		0.18	0.1	0.12	pCi/L	*	djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/10/21 0:17		0.19	0.13	0.13	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/17/21 13:31		-0.09	1.1	3	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-AWD

Locator:

ACZ Sample ID: **L67260-07**

Date Sampled: 07/19/21 13:55

Date Received: 07/21/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 11:03		0.17			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:23		0.5	1.4	7	pCi/L	*	ess
Gross Beta	08/04/21 0:23		3.4	2.6	6.7	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/10/21 0:21		0.07	0.09	0.42	pCi/L	*	djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/10/21 0:20		0.17	0.12	0.16	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/17/21 13:31		0.36	0.62	1.5	pCi/L	*	cer

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.
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Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alpha		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524240																
WG524240PBW	PBW	08/04/21						2.2	1.5	12			24			
WG524240LCSWA	LCSW	08/04/21	PCN62436	100				120	9.1	6	120	67	144			
L67041-06DUP	DUP-RPD	08/04/21			0.44	1.2	6.1	3.3	2	5.5				153	20	RG
L67041-06DUP	DUP-RER	08/04/21			0.44	1.2	6.1	3.3	2	5.5				1.23	2	
L67260-01MSA	MS	08/04/21	PCN62436	100	16	4.2	16	120	11	17	104	67	144			
L67355-05DUP	DUP-RPD	08/04/21			170	15	8.6	230	17	8.1				30	20	RM

Beta		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524240																
WG524240PBW	PBW	08/04/21						1.1	2.3	18			36			
WG524240LCSWB	LCSW	08/04/21	RC210621-11	49.9				56	4.9	5.1	112	82	122			
L67041-06DUP	DUP-RPD	08/04/21			2	2.5	6.6	2.7	2.8	8.1				30	20	RG
L67041-06DUP	DUP-RER	08/04/21			2	2.5	6.6	2.7	2.8	8.1				0.19	2	
L67355-03MSB	MS	08/04/21	RC210621-11	49.9	260	10	9.4	300	11	12	80	82	122			M2
L67355-05DUP	DUP-RPD	08/04/21			71	5.6	6.8	78	5.9	8.5				9	20	

Radium 226, dissolved		M903.1										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524570																
WG524570PBW	PBW	08/10/21						.13	0.14	0.14			0.28			
WG524570LCSW	LCSW	08/10/21	PCN62879	20				19	0.64	0.13	95	43	148			
L67261-01DUP1	DUP-RER	08/10/21			0.08	0.08	0.08	.03	0.18	0.22				0.25	2	
L67261-01DUP1	DUP-RPD	08/10/21			0.08	0.08	0.08	.03	0.18	0.22				91	20	RG
L67410-01MS	MS	08/10/21	PCN62879	40	0.64	0.21	0.63	34	1.1	0.44	83	43	148			
L67415-01DUP2	DUP-RPD	08/10/21			1.4	0.18	0.1	1.5	0.26	0.15				7	20	

Ensero Solutions

ACZ Project ID: **L67260**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Radium 228, total

M904.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524988																
WG524988LCSW	LCSW	08/16/21	PCN63356	9.55				8.2	1	1.8	86	47	123			
WG524988PBW	PBW	08/16/21						.04	0.7	1.8			3.6			
L67260-03DUP	DUP-RPD	08/16/21			0.2	0.72	1.8	.95	0.7	1.7				130	20	RG
L67260-03DUP	DUP-RER	08/16/21			0.2	0.72	1.8	.95	0.7	1.7				0.75	2	
L67442-02MS	MS	08/17/21	PCN63356	19.09	0.66	0.93	2.1	17	2.5	4.3	86	47	123			
L67442-03DUP	DUP-RPD	08/17/21			-0.28	0.94	2.1	.51	1.3	3.3				687	20	RG
L67442-03DUP	DUP-RER	08/17/21			-0.28	0.94	2.1	.51	1.3	3.3				0.49	2	

Ensero Solutions

ACZ Project ID: **L67260**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67260-01	WG524240	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L67260-02	WG524240	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L67260-03	WG524240	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L67260-04	WG524240	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L67260-05	WG524240	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

Ensero Solutions

ACZ Project ID: **L67260**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67260-06	WG524240	Gross Alpha	M900.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524570	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L67260-07	WG524240	Gross Alpha	M900.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524570	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

Ensero Solutions
3100-PO205

ACZ Project ID: L67260
Date Received: 07/21/2021 11:25
Received By:
Date Printed: 7/22/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	☐	☐	☒
2) Is the Chain of Custody form or other directive shipping papers present?	☒	☐	☐
3) Does this project require special handling procedures such as CLP protocol?	☐	☒	☐
4) Are any samples NRC licensable material?	☐	☐	☒
5) If samples are received past hold time, proceed with requested short hold time analyses?	☒	☐	☐
6) Is the Chain of Custody form complete and accurate?	☒	☐	☐
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	☐	☒	☐

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	☒	☐	☐
9) Are all labels on containers and are they intact and legible?	☒	☐	☐
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	☒	☐	☐
11) For preserved bottle types, was the pH checked and within limits? ¹	☒	☐	☐
12) Is there sufficient sample volume to perform all requested work?	☒	☐	☐
13) Is the custody seal intact on all containers?	☐	☐	☒
14) Are samples that require zero headspace acceptable?	☐	☐	☒
15) Are all sample containers appropriate for analytical requirements?	☒	☐	☐
16) Is there an Hg-1631 trip blank present?	☐	☐	☒
17) Is there a VOA trip blank present?	☐	☐	☒
18) Were all samples received within hold time?	☒	☐	☐

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
-----	-----	-----	-----	-----
6263	10.9	NA	15	N/A
NA35505	18.5	NA	15	N/A
NA35506	1.6	<=6.0	15	N/A
6721	4.3	<=6.0	15	N/A
2815	5.9	<=6.0	15	N/A

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Ensero Solutions
3100-PO205

ACZ Project ID: L67260

Date Received: 07/21/2021 11:25

Received By:

Date Printed: 7/22/2021

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).



Laboratories, Inc. L67260

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Christie Brizinski	Address: 131 E. Lincoln Ave Ste. 200
Company: Ensero Solutions	Fort Collins, CO 80524
E-mail: cbrizinski@ensero.com	Telephone: 867-668-6463, ext 229

Copy of Report to:

Name: Evan Valencia	E-mail: evalencia@ensero.com
Company: Ensero Solutions	Telephone: 818-688-1839

Invoice to:

Name: Pauline Wong	Address: 131 E. Lincoln Ave Ste. 200
Company: Ensero Solutions	Fort Collins, CO 80524
E-mail: ap@ensero.com	Telephone: 778-404-1182

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ☒ NO ☐

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified.

Are samples for SDWA Compliance Monitoring? Yes ☐ No ☒

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: EV Sampler's Site Information State CO Zip code 80401 Time Zone MTN

*Sampler's Signature: [Signature] *I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

ANALYSES REQUESTED (attach list or use quote number)

Quote #: Ensero-2020			# of Containers	TSS	Sample suite #1	Sample suite #2	COD	LLHG trip blank	Sample suite #3	TDS	
PO#: 3100-PO205											
Reporting state for compliance testing: CO											
Check box if samples include NRC licensed material? ☐											
SAMPLE IDENTIFICATION	DATE:TIME	Matrix									
SW-WEIR	7-19-2021: 9:45	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
SW-LLHG	7-19-2021: 10:10	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
SW-ARH	7-19-2021: 10:40	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
SW-FBRG	7-19-2021: 11:15	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
SW-BPL	7-19-2021: 12:50	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
SW-NWRP	7-19-2021: 13:25	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
SW-AWD	7-19-2021: 13:55	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐

Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

63 containers accounted for by this COC. Shipped 7/20/2021.
Cooler 1 of 5 accounted for by this COC

Please also send reports to importer@alexco.ehsdata.com

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
<u>E. Valencia</u>	<u>7/20/21:1530</u>	<u>[Signature]</u>	<u>7/21/21</u>

FRMAD050.06.14.14

White - Return with sample. Yellow - Retain for your records.

L67260 Chain of Custody

August 18, 2021

Report to:

Christie Brizinski
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

Bill to:

Pauline Wong
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

cc: Ensero/Alexco Importer, Evan Valencia

Project ID: 3100-PO205

ACZ Project ID: L67261

Christie Brizinski:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 21, 2021. This project has been assigned to ACZ's project number, L67261. Please reference this number in all future inquiries.

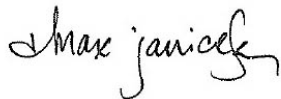
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L67261. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 17, 2021. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Max Janicek has reviewed and
approved this report.



Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-BPL

ACZ Sample ID: **L67261-01**

Date Sampled: 07/19/21 12:50

Date Received: 07/21/21

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						07/30/21 12:26	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/26/21 13:13	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/03/21 8:40	mfm
Total Hot Plate Digestion	M200.2 ICP								08/01/21 16:35	kja
Total Recoverable Digestion	M200.2 ICP-MS								07/27/21 10:40	mfm
Total Recoverable Digestion	M200.2 ICP								07/28/21 14:19	jlw

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total recoverable	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	07/28/21 21:24	bsu
Arsenic, total	M200.8 ICP-MS	1	0.00060	B		mg/L	0.0002	0.001	08/04/21 16:58	mfm
Boron, total	M200.7 ICP	1	0.038	B		mg/L	0.03	0.1	08/02/21 11:32	kja
Chromium, total recoverable	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/29/21 11:08	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 16:15	kja
Molybdenum, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	07/28/21 16:15	kja
Molybdenum, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	08/02/21 11:32	kja
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:42	bsu
Thallium, total recoverable	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	07/28/21 21:24	bsu
Uranium, dissolved	M200.8 ICP-MS	1	0.0195			mg/L	0.0001	0.0005	08/03/21 12:26	mfm
Uranium, total	M200.8 ICP-MS	1	0.0221			mg/L	0.0001	0.0005	08/04/21 16:58	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 16:15	kja

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/02/21 17:01	md
Fluoride	SM4500F-C	1	0.29	B		mg/L	0.15	0.35	08/03/21 16:39	eep
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1	0.142		*	mg/L	0.02	0.1	08/06/21 2:31	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	07/31/21 1:50	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	204			mg/L	20	40	07/21/21 19:54	jck
Residue, Non-Filterable (TSS) @105C	SM2540D	1	5.0	B	*	mg/L	5	20	07/22/21 14:29	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	15.3		*	mg/L	1	5	08/06/21 12:03	syw

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-AWD

ACZ Sample ID: **L67261-02**

Date Sampled: 07/19/21 13:55

Date Received: 07/21/21

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						07/30/21 12:35	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/26/21 13:23	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/03/21 8:40	mfm
Total Hot Plate Digestion	M200.2 ICP								08/01/21 16:49	kja
Total Recoverable Digestion	M200.2 ICP-MS								07/27/21 10:40	mfm
Total Recoverable Digestion	M200.2 ICP								07/28/21 14:33	jlw

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total recoverable	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	07/28/21 21:26	bsu
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/04/21 17:00	mfm
Boron, total	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	08/02/21 11:35	kja
Chromium, total recoverable	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/29/21 11:11	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/28/21 16:18	kja
Molybdenum, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	07/28/21 16:18	kja
Molybdenum, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	08/02/21 11:35	kja
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:44	bsu
Thallium, total recoverable	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	07/28/21 21:26	bsu
Uranium, dissolved	M200.8 ICP-MS	1	0.00109			mg/L	0.0001	0.0005	08/03/21 12:28	mfm
Uranium, total	M200.8 ICP-MS	1	0.00127			mg/L	0.0001	0.0005	08/04/21 17:00	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/28/21 16:18	kja

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/02/21 17:01	md
Fluoride	SM4500F-C	1	0.28	B	*	mg/L	0.15	0.35	08/06/21 16:35	eep
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1	<0.02	U	*	mg/L	0.02	0.1	08/06/21 2:33	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	07/31/21 1:51	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	234			mg/L	20	40	07/21/21 19:57	jck
Residue, Non-Filterable (TSS) @105C	SM2540D	1	7.0	B	*	mg/L	5	20	07/22/21 14:31	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	12.2		*	mg/L	1	5	08/06/21 12:03	syw

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.
(5)	Standard Methods for the Examination of Water and Wastewater.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5)	If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

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ACZ Project ID: **L67261**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Antimony, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524254													
WG524254ICV	ICV	07/28/21 21:16	MS210727-2	.0201		.01887	mg/L	94	90	110			
WG524254ICB	ICB	07/28/21 21:18				U	mg/L		-0.0012	0.0012			
WG524048LRB	LRB	07/28/21 21:20				U	mg/L		-0.00088	0.00088			
WG524048LFB	LFB	07/28/21 21:22	MS210702-2	.01		.01048	mg/L	105	85	115			
L67269-01LFM	LFM	07/28/21 21:29	MS210702-2	.01	U	.01065	mg/L	107	70	130			
L67269-01LFMD	LFMD	07/28/21 21:31	MS210702-2	.01	U	.01075	mg/L	108	70	130	1	20	
WG524254CCV1	CCV	07/28/21 21:35	MS210719-2	.0125		.01259	mg/L	101	90	110			
WG524254CCB1	CCB	07/28/21 21:37				U	mg/L		-0.0012	0.0012			

Arsenic, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524692													
WG524692ICV	ICV	08/04/21 16:29	MS210727-2	.05		.0491	mg/L	98	90	110			
WG524692ICB	ICB	08/04/21 16:30				.00044	mg/L		-0.0006	0.0006			
WG524524LRB	LRB	08/04/21 16:32				U	mg/L		-0.00044	0.00044			
WG524524LFB	LFB	08/04/21 16:34	MS210727-5	.05005		.04891	mg/L	98	85	115			
L67260-05LFM	LFM	08/04/21 16:46	MS210727-5	.05005	.00061	.04954	mg/L	98	70	130			
L67260-05LFMD	LFMD	08/04/21 16:48	MS210727-5	.05005	.00061	.04976	mg/L	98	70	130	0	20	
WG524692CCV1	CCV	08/04/21 16:52	MS210719-2	.1001		.09898	mg/L	99	90	110			
WG524692CCB1	CCB	08/04/21 16:54				U	mg/L		-0.0006	0.0006			
WG524692CCV2	CCV	08/04/21 17:15	MS210719-2	.1001		.10009	mg/L	100	90	110			
WG524692CCB2	CCB	08/04/21 17:17				U	mg/L		-0.0006	0.0006			
WG524692CCV3	CCV	08/04/21 17:31	MS210719-2	.1001		.09768	mg/L	98	90	110			
WG524692CCB3	CCB	08/04/21 17:33				U	mg/L		-0.0006	0.0006			

Boron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524442													
WG524442ICV	ICV	08/02/21 10:34	II210801-1	2		1.967	mg/L	98	95	105			
WG524442ICB	ICB	08/02/21 10:40				U	mg/L		-0.09	0.09			
WG524442PQV	PQV	08/02/21 10:43	II210707-2	.1001		.095	mg/L	95	70	130			
WG524442SIC	SIC	08/02/21 10:46	II210707-5	.1001		.09	mg/L	90	80	120			
WG524421LRB	LRB	08/02/21 10:52				U	mg/L		-0.066	0.066			
WG524421LFB	LFB	08/02/21 10:55	II210714-2	.5005		.521	mg/L	104	85	115			
L67260-03LFM	LFM	08/02/21 11:07	II210714-2	.5005	.037	.562	mg/L	105	70	130			
L67260-03LFMD	LFMD	08/02/21 11:10	II210714-2	.5005	.037	.567	mg/L	106	70	130	1	20	
WG524442CCV1	CCV	08/02/21 11:22	II210719-1	1		.989	mg/L	99	90	110			
WG524442CCB1	CCB	08/02/21 11:25				U	mg/L		-0.09	0.09			
WG524442CCV2	CCV	08/02/21 11:59	II210719-1	1		.998	mg/L	100	90	110			
WG524442CCB2	CCB	08/02/21 12:02				U	mg/L		-0.09	0.09			
WG524442CCV3	CCV	08/02/21 12:23	II210719-1	1		.987	mg/L	99	90	110			
WG524442CCB3	CCB	08/02/21 12:26				U	mg/L		-0.09	0.09			

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ACZ Project ID: **L67261**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524283													
WG524283ICV	ICV	07/29/21 10:07	II210720-1	2		1.931	mg/L	97	95	105			
WG524283ICB	ICB	07/29/21 10:13				U	mg/L		-0.06	0.06			
WG524283PQV	PQV	07/29/21 10:16	II210707-2	.0502		.044	mg/L	88	70	130			
WG524283SIC	SIC	07/29/21 10:19	II210707-4	.1004		.092	mg/L	92	80	120			
WG524173LRB	LRB	07/29/21 10:25				U	mg/L		-0.044	0.044			
WG524173LFB	LFB	07/29/21 10:28	II210714-2	.502		.478	mg/L	95	85	115			
WG524283CCV1	CCV	07/29/21 10:56	II210720-2	1		.963	mg/L	96	90	110			
WG524283CCB1	CCB	07/29/21 10:59				U	mg/L		-0.06	0.06			
WG524283CCV2	CCV	07/29/21 11:33	II210720-2	1		.97	mg/L	97	90	110			
WG524283CCB2	CCB	07/29/21 11:36				U	mg/L		-0.06	0.06			
L67269-09LFM	LFM	07/29/21 11:48	II210714-2	.502	U	.546	mg/L	109	70	130			
L67269-09LFMD	LFMD	07/29/21 11:51	II210714-2	.502	U	.543	mg/L	108	70	130	1	20	
WG524283CCV3	CCV	07/29/21 11:57	II210720-2	1		.949	mg/L	95	90	110			
WG524283CCB3	CCB	07/29/21 12:00				U	mg/L		-0.06	0.06			

Copper, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	2		1.963	mg/L	98	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.03	0.03			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	.0502		.043	mg/L	86	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	.1004		.09	mg/L	90	80	120			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	.5		.485	mg/L	97	85	115			
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	1		.951	mg/L	95	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.03	0.03			
L67357-03AS	AS	07/28/21 16:31	II210714-2	.5	U	.491	mg/L	98	85	115			
L67357-03ASD	ASD	07/28/21 16:34	II210714-2	.5	U	.49	mg/L	98	85	115	0	20	
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	1		.944	mg/L	94	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.03	0.03			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	1		.954	mg/L	95	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.03	0.03			

Cyanide, WAD

SM4500-CN I,E-Colorimetric w/ distillation

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524518													
WG524518ICV	ICV	08/02/21 16:56	WI210802-7	.3		.3036	mg/L	101	90	110			
WG524518ICB	ICB	08/02/21 16:57				U	mg/L		-0.003	0.003			
WG524345LRB	LRB	08/02/21 16:58				U	mg/L		-0.003	0.003			
WG524345LFB	LFB	08/02/21 16:59	WI210717-5	.2		.1916	mg/L	96	90	110			
WG524518CCV1	CCV	08/02/21 17:06	WI210802-6	.25		.2512	mg/L	100	90	110			
WG524518CCB1	CCB	08/02/21 17:07				U	mg/L		-0.003	0.003			
L67324-13DUP	DUP	08/02/21 17:09			U	U	mg/L				0	20	RA
L67325-02LFM	LFM	08/02/21 17:11	WI210717-5	.2	U	.1894	mg/L	95	90	110			
WG524518CCV2	CCV	08/02/21 17:17	WI210802-6	.25		.2514	mg/L	101	90	110			
WG524518CCB2	CCB	08/02/21 17:17				U	mg/L		-0.003	0.003			

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ACZ Project ID: **L67261**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride

SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524567													
WG524567ICV1	ICV	08/03/21 13:33	WC210803-1	2.002		2	mg/L	100	90	110			
WG524567ICB	ICB	08/03/21 13:39				U	mg/L		-0.3	0.3			
WG524567PQV	PQV	08/03/21 13:42	WC210803-3	.3514		.37	mg/L	105	70	130			
WG524567LFB1	LFB	08/03/21 13:45	WC210803-9	5.02		4.91	mg/L	98	90	110			
WG524567CCV1	CCV	08/03/21 14:49	WC210803-1	2.002		2.08	mg/L	104	90	110			
WG524567CCB1	CCB	08/03/21 14:56				U	mg/L		-0.3	0.3			
WG524567CCV2	CCV	08/03/21 16:09	WC210803-1	2.002		2.1	mg/L	105	90	110			
WG524567CCB2	CCB	08/03/21 16:17				U	mg/L		-0.3	0.3			
L67260-06AS	AS	08/03/21 16:29	WC210803-9	5.02	.32	5.19	mg/L	97	90	110			
L67260-06ASD	ASD	08/03/21 16:32	WC210803-9	5.02	.32	5.28	mg/L	99	90	110	2	20	
WG524567LFB2	LFB	08/03/21 16:42	WC210803-9	5.02		5.05	mg/L	101	90	110			
WG524567CCV3	CCV	08/03/21 17:17	WC210803-1	2.002		2.19	mg/L	109	90	110			
WG524567CCB3	CCB	08/03/21 17:22				U	mg/L		-0.3	0.3			
WG524567CCV4	CCV	08/03/21 18:34	WC210803-1	2.002		2.06	mg/L	103	90	110			
WG524567CCB4	CCB	08/03/21 18:42				U	mg/L		-0.3	0.3			
WG524567CCV5	CCV	08/03/21 20:15	WC210803-1	2.002		2.05	mg/L	102	90	110			
WG524567CCB5	CCB	08/03/21 20:23				U	mg/L		-0.3	0.3			
WG524814													
WG524814ICV	ICV	08/06/21 12:24	WC210803-1	2.002		2.12	mg/L	106	90	110			
WG524814ICB	ICB	08/06/21 12:29				U	mg/L		-0.3	0.3			
WG524816													
WG524816ICV	ICV	08/06/21 14:44	WC210803-1	2.002		2.06	mg/L	103	90	110			
WG524816ICB	ICB	08/06/21 14:52				U	mg/L		-0.3	0.3			
WG524816PQV	PQV	08/06/21 14:56	WC210803-3	.3514		.37	mg/L	105	70	130			
WG524816LFB1	LFB	08/06/21 14:59	WC210803-9	5.02		5.17	mg/L	103	90	110			
WG524816CCV1	CCV	08/06/21 15:54	WC210803-1	2.002		2.04	mg/L	102	90	110			
WG524816CCB1	CCB	08/06/21 16:02				U	mg/L		-0.3	0.3			
L67374-02AS	AS	08/06/21 16:52	WC210803-9	5.02	.57	4.8	mg/L	84	90	110			M2
L67374-02ASD	ASD	08/06/21 16:56	WC210803-9	5.02	.57	4.8	mg/L	84	90	110	0	20	M2
WG524816CCV2	CCV	08/06/21 17:07	WC210803-1	2.002		2.12	mg/L	106	90	110			
WG524816CCB2	CCB	08/06/21 17:15				U	mg/L		-0.3	0.3			
WG524816LFB2	LFB	08/06/21 17:49	WC210803-9	5.02		5.33	mg/L	106	90	110			
WG524816CCV3	CCV	08/06/21 18:20	WC210803-1	2.002		2.07	mg/L	103	90	110			
WG524816CCB3	CCB	08/06/21 18:28				U	mg/L		-0.3	0.3			
WG524816CCV4	CCV	08/06/21 19:55	WC210803-1	2.002		2.11	mg/L	105	90	110			
WG524816CCB4	CCB	08/06/21 20:03				U	mg/L		-0.3	0.3			
WG524816CCV5	CCV	08/06/21 21:21	WC210803-1	2.002		2.1	mg/L	105	90	110			
WG524816CCB5	CCB	08/06/21 21:29				U	mg/L		-0.3	0.3			

Ensero Solutions

ACZ Project ID: **L67261**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Molybdenum, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	2		2.01	mg/L	101	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.06	0.06			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	.1002		.091	mg/L	91	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	.1002		.086	mg/L	86	80	120			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	.501		.495	mg/L	99	85	115			
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	1		.988	mg/L	99	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.06	0.06			
L67357-03AS	AS	07/28/21 16:31	II210714-2	.501	U	.487	mg/L	97	85	115			
L67357-03ASD	ASD	07/28/21 16:34	II210714-2	.501	U	.486	mg/L	97	85	115	0	20	
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	1		.965	mg/L	97	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.06	0.06			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	1		.984	mg/L	98	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.06	0.06			

Molybdenum, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524442													
WG524442ICV	ICV	08/02/21 10:34	II210801-1	2		1.964	mg/L	98	95	105			
WG524442ICB	ICB	08/02/21 10:40				U	mg/L		-0.06	0.06			
WG524442PQV	PQV	08/02/21 10:43	II210707-2	.1002		.095	mg/L	95	70	130			
WG524442SIC	SIC	08/02/21 10:46	II210707-5	.1002		.088	mg/L	88	80	120			
WG524421LRB	LRB	08/02/21 10:52				U	mg/L		-0.044	0.044			
WG524421LFB	LFB	08/02/21 10:55	II210714-2	.501		.513	mg/L	102	85	115			
L67260-03LFM	LFM	08/02/21 11:07	II210714-2	.501	U	.515	mg/L	103	70	130			
L67260-03LFMD	LFMD	08/02/21 11:10	II210714-2	.501	U	.518	mg/L	103	70	130	1	20	
WG524442CCV1	CCV	08/02/21 11:22	II210719-1	1		.998	mg/L	100	90	110			
WG524442CCB1	CCB	08/02/21 11:25				U	mg/L		-0.06	0.06			
WG524442CCV2	CCV	08/02/21 11:59	II210719-1	1		1.004	mg/L	100	90	110			
WG524442CCB2	CCB	08/02/21 12:02				U	mg/L		-0.06	0.06			
WG524442CCV3	CCV	08/02/21 12:23	II210719-1	1		.993	mg/L	99	90	110			
WG524442CCB3	CCB	08/02/21 12:26				U	mg/L		-0.06	0.06			

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ACZ Project ID: **L67261**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrate/Nitrite as N

M353.2 - H2SO4 preserved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524782													
WG524782ICV	ICV	08/05/21 23:58	WI210603-7	2.416		2.314	mg/L	96	90	110			
WG524782ICB	ICB	08/06/21 0:00				U	mg/L		-0.02	0.02			
WG524787													
WG524787CCV1	CCV	08/06/21 2:08	WI210804-1	2		2.028	mg/L	101	90	110			
WG524787CCB1	CCB	08/06/21 2:12				U	mg/L		-0.02	0.02			
WG524787LFB	LFB	08/06/21 2:13	WI210331-13	2		1.993	mg/L	100	90	110			
L65076-18AS	AS	08/06/21 2:15	WI210331-13	2	U	2.016	mg/L	101	90	110			
L67260-01DUP	DUP	08/06/21 2:18			.03	.037	mg/L				21	20	RA
WG524787CCV2	CCV	08/06/21 2:26	WI210804-1	2		2.008	mg/L	100	90	110			
WG524787CCB2	CCB	08/06/21 2:29				U	mg/L		-0.02	0.02			
WG524787CCV3	CCV	08/06/21 2:43	WI210804-1	2		2.001	mg/L	100	90	110			
WG524787CCB3	CCB	08/06/21 2:46				U	mg/L		-0.02	0.02			
WG524787CCV4	CCV	08/06/21 2:55	WI210804-1	2		2.017	mg/L	101	90	110			
WG524787CCB4	CCB	08/06/21 2:58				U	mg/L		-0.02	0.02			

Phosphorus, total

M365.1 - Auto Ascorbic Acid (digest)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524401													
WG524401ICV	ICV	07/31/21 0:40	WI210603-3	.65228		.649	mg/L	99	90	110			
WG524401ICB	ICB	07/31/21 0:42				U	mg/L		-0.01	0.01			
WG524404													
WG524404CCV1	CCV	07/31/21 1:08	WI210603-4	.5		.5	mg/L	100	90	110			
WG524404CCB1	CCB	07/31/21 1:09				U	mg/L		-0.01	0.01			
WG523973LRB	LRB	07/31/21 1:10				U	mg/L		-0.01	0.01			
WG523973LFB	LFB	07/31/21 1:11	WI210716-2	.5		.465	mg/L	93	90	110			
L67260-01LFM	LFM	07/31/21 1:14	WI210716-2	.5	.012	.469	mg/L	91	90	110			
L67260-02DUP	DUP	07/31/21 1:16			.013	.011	mg/L				17	20	RA
WG524404CCV2	CCV	07/31/21 1:22	WI210603-4	.5		.499	mg/L	100	90	110			
WG524404CCB2	CCB	07/31/21 1:23				U	mg/L		-0.01	0.01			
WG524404CCV4	CCV	07/31/21 1:47	WI210603-4	.5		.481	mg/L	96	90	110			
WG524404CCB4	CCB	07/31/21 1:48				U	mg/L		-0.01	0.01			
WG524404CCV5	CCV	07/31/21 2:01	WI210603-4	.5		.495	mg/L	99	90	110			
WG524404CCB5	CCB	07/31/21 2:02				U	mg/L		-0.01	0.01			

Residue, Filterable (TDS) @180C

SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG523776													
WG523776PBW	PBW	07/21/21 19:10				U	mg/L		-20	20			
WG523776LCSW	LCSW	07/21/21 19:12	PCN63563	1000		996	mg/L	100	80	120			
L67266-04DUP	DUP	07/21/21 20:10			536	534	mg/L				0	10	

Residue, Non-Filterable (TSS) @105C

SM2540D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG523843													
WG523843PBW	PBW	07/22/21 14:00				U	mg/L		-5	5			
WG523843LCSW	LCSW	07/22/21 14:01	PCN63561	100		104	mg/L	104	80	120			
L67292-03DUP	DUP	07/22/21 14:44			9	11	mg/L				20	10	RA

Ensero Solutions

ACZ Project ID: **L67261**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Silver, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524921													
WG524921ICV	ICV	08/09/21 16:13	MS210727-2	.02		.01961	mg/L	98	90	110			
WG524921ICB	ICB	08/09/21 16:15				U	mg/L		-0.00022	0.00022			
WG524921LFB	LFB	08/09/21 16:17	MS210727-5	.01002		.01015	mg/L	101	85	115			
L67236-01AS	AS	08/09/21 16:20	MS210727-5	.501	U	.439	mg/L	88	70	130			
L67236-01ASD	ASD	08/09/21 16:22	MS210727-5	.501	U	.46326	mg/L	92	70	130	5	20	
WG524921CCV1	CCV	08/09/21 16:31	MS210806-2	.02505		.02498	mg/L	100	90	110			
WG524921CCB1	CCB	08/09/21 16:33				U	mg/L		-0.0003	0.0003			
L67261-02AS	AS	08/09/21 16:46	MS210727-5	.01002	U	.01016	mg/L	101	70	130			
L67261-02ASD	ASD	08/09/21 16:48	MS210727-5	.01002	U	.01017	mg/L	101	70	130	0	20	
WG524921CCV2	CCV	08/09/21 16:53	MS210806-2	.02505		.02477	mg/L	99	90	110			
WG524921CCB2	CCB	08/09/21 16:55				U	mg/L		-0.0003	0.0003			

Sulfate

D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524726													
WG524726ICB	ICB	08/06/21 11:13				U	mg/L		-3	3			
WG524726ICV	ICV	08/06/21 11:13	WI210802-8	20.46		19.6	mg/L	96	90	110			
WG524726CCV1	CCV	08/06/21 12:00	WI210802-9	25		25.2	mg/L	101	90	110			
WG524726CCB1	CCB	08/06/21 12:00				U	mg/L		-3	3			
WG524726LFB	LFB	08/06/21 12:00	WI210105-3	10		9.9	mg/L	99	90	110			
L67260-01AS	AS	08/06/21 12:01	WI210105-3	10	22.9	31.3	mg/L	84	90	110			M2
WG524726CCV2	CCV	08/06/21 12:03	WI210802-9	25		24.8	mg/L	99	90	110			
WG524726CCB2	CCB	08/06/21 12:03				U	mg/L		-3	3			
WG524726CCV3	CCV	08/06/21 12:04	WI210802-9	25		24.8	mg/L	99	90	110			
WG524726CCB3	CCB	08/06/21 12:04				U	mg/L		-3	3			
WG524726CCV4	CCV	08/06/21 12:06	WI210802-9	25		24.6	mg/L	98	90	110			
WG524726CCB4	CCB	08/06/21 12:06				U	mg/L		-3	3			
WG524726CCV5	CCV	08/06/21 12:08	WI210802-9	25		24.8	mg/L	99	90	110			
WG524726CCB5	CCB	08/06/21 12:08				U	mg/L		-3	3			
WG524726CCV6	CCV	08/06/21 12:10	WI210802-9	25		24.7	mg/L	99	90	110			
WG524726CCB6	CCB	08/06/21 12:10				U	mg/L		-3	3			
WG524726CCV7	CCV	08/06/21 12:13	WI210802-9	25		24.8	mg/L	99	90	110			
WG524726CCB7	CCB	08/06/21 12:13				U	mg/L		-3	3			
WG524726CCV8	CCV	08/06/21 12:31	WI210802-9	25		25.1	mg/L	100	90	110			
WG524726CCB8	CCB	08/06/21 12:31				U	mg/L		-3	3			
WG524726CCV9	CCV	08/06/21 12:33	WI210802-9	25		24.5	mg/L	98	90	110			
WG524726CCB9	CCB	08/06/21 12:33				U	mg/L		-3	3			
WG524726CCV10	CCV	08/06/21 12:44	WI210802-9	25		24.9	mg/L	100	90	110			
WG524726CCB10	CCB	08/06/21 12:44				U	mg/L		-3	3			
L67236-01DUP	DUP	08/06/21 12:45			534	538.9	mg/L				1	20	
WG524726CCV11	CCV	08/06/21 12:46	WI210802-9	25		24.6	mg/L	98	90	110			
WG524726CCB11	CCB	08/06/21 12:46				U	mg/L		-3	3			

Ensero Solutions

ACZ Project ID: **L67261**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Thallium, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524254													
WG524254ICV	ICV	07/28/21 21:16	MS210727-2	.05		.05211	mg/L	104	90	110			
WG524254ICB	ICB	07/28/21 21:18				U	mg/L		-0.0003	0.0003			
WG524048LRB	LRB	07/28/21 21:20				U	mg/L		-0.00022	0.00022			
WG524048LFB	LFB	07/28/21 21:22	MS210702-2	.05		.04806	mg/L	96	85	115			
L67269-01LFM	LFM	07/28/21 21:29	MS210702-2	.05	U	.04995	mg/L	100	70	130			
L67269-01LFMD	LFMD	07/28/21 21:31	MS210702-2	.05	U	.05028	mg/L	101	70	130	1	20	
WG524254CCV1	CCV	07/28/21 21:35	MS210719-2	.1		.10241	mg/L	102	90	110			
WG524254CCB1	CCB	07/28/21 21:37				U	mg/L		-0.0003	0.0003			
WG524254CCV2	CCV	07/28/21 21:57	MS210719-2	.1		.10316	mg/L	103	90	110			
WG524254CCB2	CCB	07/28/21 21:59				U	mg/L		-0.0003	0.0003			
WG524254CCV3	CCV	07/28/21 22:20	MS210719-2	.1		.10218	mg/L	102	90	110			
WG524254CCB3	CCB	07/28/21 22:21				U	mg/L		-0.0003	0.0003			
WG524254CCV4	CCV	07/28/21 22:34	MS210719-2	.1		.1016	mg/L	102	90	110			
WG524254CCB4	CCB	07/28/21 22:36				U	mg/L		-0.0003	0.0003			

Uranium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524554													
WG524554ICV	ICV	08/03/21 11:46	MS210727-2	.05		.05054	mg/L	101	90	110			
WG524554ICB	ICB	08/03/21 11:48				U	mg/L		-0.00022	0.00022			
WG524554LFB	LFB	08/03/21 11:50	MS210727-5	.05		.04457	mg/L	89	85	115			
WG524554CCV1	CCV	08/03/21 12:08	MS210719-2	.1		.09358	mg/L	94	90	110			
WG524554CCB1	CCB	08/03/21 12:10				U	mg/L		-0.0003	0.0003			
L67339-01AS	AS	08/03/21 12:37	MS210727-5	.05	.00024	.04599	mg/L	92	70	130			
WG524554CCV2	CCV	08/03/21 12:39	MS210719-2	.1		.08973	mg/L	90	90	110			
WG524554CCB2	CCB	08/03/21 12:41				U	mg/L		-0.0003	0.0003			
L67339-01ASD	ASD	08/03/21 12:42	MS210727-5	.05	.00024	.04327	mg/L	86	70	130	6	20	
WG524554CCV3	CCV	08/03/21 12:52	MS210719-2	.1		.09077	mg/L	91	90	110			
WG524554CCB3	CCB	08/03/21 12:53				U	mg/L		-0.0003	0.0003			

Uranium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524692													
WG524692ICV	ICV	08/04/21 16:29	MS210727-2	.05		.04953	mg/L	99	90	110			
WG524692ICB	ICB	08/04/21 16:30				U	mg/L		-0.0003	0.0003			
WG524524LRB	LRB	08/04/21 16:32				U	mg/L		-0.00022	0.00022			
WG524524LFB	LFB	08/04/21 16:34	MS210727-5	.05		.04871	mg/L	97	85	115			
L67260-05LFM	LFM	08/04/21 16:46	MS210727-5	.05	.0219	.07681	mg/L	110	70	130			
L67260-05LFMD	LFMD	08/04/21 16:48	MS210727-5	.05	.0219	.07746	mg/L	111	70	130	1	20	
WG524692CCV1	CCV	08/04/21 16:52	MS210719-2	.1		.10317	mg/L	103	90	110			
WG524692CCB1	CCB	08/04/21 16:54				U	mg/L		-0.0003	0.0003			
WG524692CCV2	CCV	08/04/21 17:15	MS210719-2	.1		.1026	mg/L	103	90	110			
WG524692CCB2	CCB	08/04/21 17:17				U	mg/L		-0.0003	0.0003			
WG524692CCV3	CCV	08/04/21 17:31	MS210719-2	.1		.09998	mg/L	100	90	110			
WG524692CCB3	CCB	08/04/21 17:33				U	mg/L		-0.0003	0.0003			

Ensero SolutionsACZ Project ID: **L67261**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524199													
WG524199ICV	ICV	07/28/21 15:11	II210720-1	2		1.989	mg/L	99	95	105			
WG524199ICB	ICB	07/28/21 15:17				U	mg/L		-0.06	0.06			
WG524199PQV	PQV	07/28/21 15:20	II210707-2	.05015		.042	mg/L	84	70	130			
WG524199SIC	SIC	07/28/21 15:23	II210707-4	.1003		.1	mg/L	100	80	120			
WG524199LFB	LFB	07/28/21 15:29	II210714-2	.50045		.51	mg/L	102	85	115			
WG524199CCV1	CCV	07/28/21 16:00	II210720-2	1		.964	mg/L	96	90	110			
WG524199CCB1	CCB	07/28/21 16:03				U	mg/L		-0.06	0.06			
L67357-03AS	AS	07/28/21 16:31	II210714-2	.50045	.169	.664	mg/L	100	85	115			
L67357-03ASD	ASD	07/28/21 16:34	II210714-2	.50045	.169	.667	mg/L	101	85	115	0	20	
WG524199CCV2	CCV	07/28/21 16:37	II210720-2	1		.94	mg/L	94	90	110			
WG524199CCB2	CCB	07/28/21 16:40				U	mg/L		-0.06	0.06			
WG524199CCV3	CCV	07/28/21 16:58	II210720-2	1		.948	mg/L	95	90	110			
WG524199CCB3	CCB	07/28/21 17:01				U	mg/L		-0.06	0.06			

Ensero Solutions

ACZ Project ID: **L67261**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67261-01	WG524518	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524787	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524404	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG523843	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG524726	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
L67261-02	WG524518	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524816	Fluoride	SM4500F-C	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524787	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524404	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG523843	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG524726	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-BPL

Locator:

ACZ Sample ID: **L67261-01**

Date Sampled: 07/19/21 12:50

Date Received: 07/21/21

Sample Matrix: *Surface Water*

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 11:05		0.08			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:24		14	3.9	6.3	pCi/L	*	ess
Gross Beta	08/04/21 0:24		8.6	3.1	8.2	pCi/L	*	ess

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/10/21 0:23		0.08	0.08	0.08	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/17/21 13:31		0.62	0.65	1.5	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-AWD

Locator:

ACZ Sample ID: **L67261-02**

Date Sampled: 07/19/21 13:55

Date Received: 07/21/21

Sample Matrix: *Surface Water*

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 11:05		0.24			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:25		2.5	2	17	pCi/L	*	ess
Gross Beta	08/04/21 0:25		4.5	2.9	18	pCi/L	*	ess

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/10/21 0:25		0.24	0.11	0.13	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/17/21 13:31		0.17	0.73	1.7	pCi/L	*	cer

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.
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Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Ensero Solutions

ACZ Project ID: **L67261**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alpha		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524240																
WG524240PBW	PBW	08/04/21						2.2	1.5	12			24			
WG524240LCSWA	LCSW	08/04/21	PCN62436	100				120	9.1	6	120	67	144			
L67041-06DUP	DUP-RPD	08/04/21			0.44	1.2	6.1	3.3	2	5.5				153	20	RG
L67041-06DUP	DUP-RER	08/04/21			0.44	1.2	6.1	3.3	2	5.5				1.23	2	
L67260-01MSA	MS	08/04/21	PCN62436	100	16	4.2	16	120	11	17	104	67	144			
L67355-05DUP	DUP-RPD	08/04/21			170	15	8.6	230	17	8.1				30	20	RM

Beta		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524240																
WG524240PBW	PBW	08/04/21						1.1	2.3	18			36			
WG524240LCSWB	LCSW	08/04/21	RC210621-11	49.9				56	4.9	5.1	112	82	122			
L67041-06DUP	DUP-RPD	08/04/21			2	2.5	6.6	2.7	2.8	8.1				30	20	RG
L67041-06DUP	DUP-RER	08/04/21			2	2.5	6.6	2.7	2.8	8.1				0.19	2	
L67355-03MSB	MS	08/04/21	RC210621-11	49.9	260	10	9.4	300	11	12	80	82	122			M2
L67355-05DUP	DUP-RPD	08/04/21			71	5.6	6.8	78	5.9	8.5				9	20	

Radium 226, total		M903.1										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524570																
WG524570PBW	PBW	08/10/21						.13	0.14	0.14			0.28			
WG524570LCSW	LCSW	08/10/21	PCN62879	20				19	0.64	0.13	95	43	148			
L67261-01DUP1	DUP-RER	08/10/21			0.08	0.08	0.08	.03	0.18	0.22				0.25	2	
L67261-01DUP1	DUP-RPD	08/10/21			0.08	0.08	0.08	.03	0.18	0.22				91	20	RG
L67410-01MS	MS	08/10/21	PCN62879	40	0.64	0.21	0.63	34	1.1	0.44	83	43	148			
L67415-01DUP2	DUP-RPD	08/10/21			1.4	0.18	0.1	1.5	0.26	0.15				7	20	

Ensero Solutions

ACZ Project ID: **L67261**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Radium 228, total

M904.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524988																
WG524988LCSW	LCSW	08/16/21	PCN63356	9.55				8.2	1	1.8	86	47	123			
WG524988PBW	PBW	08/16/21						.04	0.7	1.8			3.6			
L67260-03DUP	DUP-RPD	08/16/21			0.2	0.72	1.8	.95	0.7	1.7				130	20	RG
L67260-03DUP	DUP-RER	08/16/21			0.2	0.72	1.8	.95	0.7	1.7				0.75	2	
L67442-02MS	MS	08/17/21	PCN63356	19.09	0.66	0.93	2.1	17	2.5	4.3	86	47	123			
L67442-03DUP	DUP-RPD	08/17/21			-0.28	0.94	2.1	.51	1.3	3.3				687	20	RG
L67442-03DUP	DUP-RER	08/17/21			-0.28	0.94	2.1	.51	1.3	3.3				0.49	2	

Ensero Solutions

ACZ Project ID: **L67261**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67261-01	WG524240	Gross Alpha	M900.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524570	Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L67261-02	WG524240	Gross Alpha	M900.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524570	Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

Ensero Solutions

ACZ Project ID: **L67261**

No certification qualifiers associated with this analysis

Ensero Solutions
3100-PO205

ACZ Project ID: L67261
Date Received: 07/21/2021 11:26
Received By:
Date Printed: 7/22/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	☐	☐	☒
2) Is the Chain of Custody form or other directive shipping papers present?	☒	☐	☐
3) Does this project require special handling procedures such as CLP protocol?	☐	☒	☐
4) Are any samples NRC licensable material?	☐	☐	☒
5) If samples are received past hold time, proceed with requested short hold time analyses?	☒	☐	☐
6) Is the Chain of Custody form complete and accurate?	☒	☐	☐
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	☐	☒	☐

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	☒	☐	☐
9) Are all labels on containers and are they intact and legible?	☒	☐	☐
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	☒	☐	☐
11) For preserved bottle types, was the pH checked and within limits? ¹	☒	☐	☐
12) Is there sufficient sample volume to perform all requested work?	☒	☐	☐
13) Is the custody seal intact on all containers?	☐	☐	☒
14) Are samples that require zero headspace acceptable?	☐	☐	☒
15) Are all sample containers appropriate for analytical requirements?	☒	☐	☐
16) Is there an Hg-1631 trip blank present?	☐	☐	☒
17) Is there a VOA trip blank present?	☐	☐	☒
18) Were all samples received within hold time?	☒	☐	☐

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
-----	-----	-----	-----	-----
6881	5.4	<=6.0	15	N/A

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Ensero Solutions
3100-PO205

ACZ Project ID: L67261

Date Received: 07/21/2021 11:26

Received By:

Date Printed: 7/22/2021

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

August 18, 2021

Report to:

Christie Brizinski
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

Bill to:

Pauline Wong
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

cc: Ensero/Alexco Importer, Evan Valencia

Project ID: 3100-PO205

ACZ Project ID: L67355

Christie Brizinski:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 23, 2021. This project has been assigned to ACZ's project number, L67355. Please reference this number in all future inquiries.

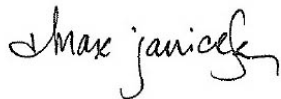
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L67355. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 17, 2021. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Max Janicek has reviewed and
approved this report.



Ensero Solutions

August 18, 2021

Project ID: 3100-PO205

ACZ Project ID: L67355

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 7 miscellaneous samples from Ensero Solutions on July 23, 2021. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L67355. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic, radiochemistry parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition, the following has been noted with this specific project:

The below is from WG525033

Qualifier: N1

Applies to:

L67355-01/RADIUM 226

L67355-01/RADIUM 226

L67355-02/RADIUM 226

L67355-02/RADIUM 226

RER used for precision assessment because the RPD is greater than 20 and the sample activity is less than 5x detection limit. The RER is outside the acceptance limits (observed RER=2.2, high limit=2.0), and precision is considered questionable within the context of the calculated error (or uncertainty). However, the reported error is very small (0.19 pCi/L for the duplicate and 0.12 pCi/L for the parent sample. Consequently, measurements within 3 standard deviations of each other is likely adequate for meeting data quality objectives.

Ensero Solutions

Project ID: 3100-PO205
Sample ID: SUMPS

ACZ Sample ID: **L67355-01**
Date Sampled: 07/20/21 09:40
Date Received: 07/23/21
Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						08/04/21 11:23	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/28/21 10:45	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/06/21 9:35	mfm
Total Hot Plate Digestion	M200.2 ICP								08/06/21 15:36	jlw

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SUMPS

ACZ Sample ID: **L67355-01**

Date Sampled: 07/20/21 09:40

Date Received: 07/23/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/04/21 15:30	kja
Aluminum, total	M200.7 ICP	1	0.061	B		mg/L	0.05	0.25	08/08/21 13:33	kja
Antimony, dissolved	M200.8 ICP-MS	1	0.00205			mg/L	0.0004	0.002	08/09/21 15:34	mfm
Antimony, total	M200.8 ICP-MS	1	0.00114	B		mg/L	0.0004	0.002	08/09/21 16:37	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 15:34	mfm
Arsenic, total	M200.8 ICP-MS	1	0.00092	B		mg/L	0.0002	0.001	08/09/21 16:37	mfm
Boron, dissolved	M200.7 ICP	1	0.061	B		mg/L	0.03	0.1	08/04/21 15:30	kja
Boron, total	M200.7 ICP	1	0.078	B		mg/L	0.03	0.1	08/08/21 13:33	kja
Calcium, dissolved	M200.7 ICP	1	154			mg/L	0.1	0.5	08/04/21 15:30	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/04/21 15:30	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/08/21 13:33	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/04/21 15:30	kja
Copper, total	M200.7 ICP	1	0.061			mg/L	0.01	0.05	08/08/21 13:33	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/04/21 15:30	kja
Iron, total	M200.7 ICP	1	0.450			mg/L	0.06	0.15	08/08/21 13:33	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:34	mfm
Lead, total	M200.8 ICP-MS	1	0.00014	B		mg/L	0.0001	0.0005	08/09/21 16:37	mfm
Magnesium, dissolved	M200.7 ICP	1	64.9			mg/L	0.2	1	08/04/21 15:30	kja
Manganese, dissolved	M200.7 ICP	1	0.068			mg/L	0.01	0.05	08/04/21 15:30	kja
Manganese, total	M200.7 ICP	1	0.074			mg/L	0.01	0.05	08/08/21 13:33	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 15:02	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 12:44	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.0502			mg/L	0.0002	0.0005	08/09/21 15:34	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.0490			mg/L	0.0002	0.0005	08/09/21 16:37	mfm
Potassium, dissolved	M200.7 ICP	1	7.79			mg/L	0.2	1	08/04/21 15:30	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00105			mg/L	0.0001	0.00025	08/09/21 15:34	mfm
Selenium, total	M200.8 ICP-MS	1	0.00101			mg/L	0.0001	0.00025	08/09/21 16:37	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:34	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:37	mfm
Sodium, dissolved	M200.7 ICP	1	29.4			mg/L	0.2	1	08/04/21 15:30	kja
Thallium, dissolved	M200.8 ICP-MS	1	0.00015	B		mg/L	0.0001	0.0005	08/09/21 15:34	mfm
Thallium, total	M200.8 ICP-MS	1	0.00019	B		mg/L	0.0001	0.0005	08/09/21 16:37	mfm
Uranium, dissolved	M200.8 ICP-MS	1	1.39		*	mg/L	0.0001	0.0005	08/09/21 15:34	mfm
Uranium, total	M200.8 ICP-MS	1	1.37			mg/L	0.0001	0.0005	08/09/21 16:37	mfm
Zinc, dissolved	M200.7 ICP	1	0.097			mg/L	0.02	0.05	08/04/21 15:30	kja
Zinc, total	M200.7 ICP	1	0.127			mg/L	0.02	0.05	08/08/21 13:33	kja

Ensero Solutions

Project ID: 3100-PO205
Sample ID: SUMPS

ACZ Sample ID: **L67355-01**

Date Sampled: 07/20/21 09:40

Date Received: 07/23/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	162			mg/L	2	20	07/29/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Total Alkalinity		1	162			mg/L	2	20	07/29/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			0.0			%			08/18/21 0:00	calc
Sum of Anions			15			meq/L			08/18/21 0:00	calc
Sum of Cations			15			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	26.2		*	mg/L	0.5	2	08/14/21 11:13	wtc
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	08/04/21 15:00	md
Fluoride	SM4500F-C	1	0.45			mg/L	0.15	0.35	08/10/21 13:24	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	1.39		*	mg/L	0.02	0.1	08/11/21 0:55	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	07/31/21 19:44	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	998			mg/L	20	40	07/27/21 14:02	emk
Residue, Non-Filterable (TSS) @105C	SM2540D	1	5.0	B	*	mg/L	5	20	07/26/21 18:54	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	20	540		*	mg/L	20	100	08/16/21 11:07	syw
TDS (calculated)	Calculation		922			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.08						08/18/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205
 Sample ID: MW-07

ACZ Sample ID: **L67355-02**
 Date Sampled: 07/20/21 10:40
 Date Received: 07/23/21
 Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						08/04/21 11:33	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/28/21 11:00	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/06/21 9:35	mfm
Total Hot Plate Digestion	M200.2 ICP								08/06/21 15:50	jlw

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Project ID: 3100-PO205

Sample ID: MW-07

ACZ Sample ID: **L67355-02**

Date Sampled: 07/20/21 10:40

Date Received: 07/23/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/04/21 15:33	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/08/21 13:36	kja
Antimony, dissolved	M200.8 ICP-MS	1	0.00090	B		mg/L	0.0004	0.002	08/09/21 15:45	mfm
Antimony, total	M200.8 ICP-MS	1	0.00062	B		mg/L	0.0004	0.002	08/09/21 16:39	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 15:45	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 16:39	mfm
Boron, dissolved	M200.7 ICP	1	0.053	B		mg/L	0.03	0.1	08/04/21 15:33	kja
Boron, total	M200.7 ICP	1	0.073	B		mg/L	0.03	0.1	08/08/21 13:36	kja
Calcium, dissolved	M200.7 ICP	1	133			mg/L	0.1	0.5	08/04/21 15:33	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/04/21 15:33	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/08/21 13:36	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/04/21 15:33	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/08/21 13:36	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/04/21 15:33	kja
Iron, total	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/08/21 13:36	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:45	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:39	mfm
Magnesium, dissolved	M200.7 ICP	1	56.5			mg/L	0.2	1	08/04/21 15:33	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/04/21 15:33	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/08/21 13:36	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 15:03	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 12:44	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.0343			mg/L	0.0002	0.0005	08/09/21 15:45	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.0343			mg/L	0.0002	0.0005	08/09/21 16:39	mfm
Potassium, dissolved	M200.7 ICP	1	6.40			mg/L	0.2	1	08/04/21 15:33	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00118			mg/L	0.0001	0.00025	08/09/21 15:45	mfm
Selenium, total	M200.8 ICP-MS	1	0.00111			mg/L	0.0001	0.00025	08/09/21 16:39	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:45	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:39	mfm
Sodium, dissolved	M200.7 ICP	1	33.5			mg/L	0.2	1	08/04/21 15:33	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:45	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:39	mfm
Uranium, dissolved	M200.8 ICP-MS	1	1.10		*	mg/L	0.0001	0.0005	08/09/21 15:45	mfm
Uranium, total	M200.8 ICP-MS	1	1.11			mg/L	0.0001	0.0005	08/09/21 16:39	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/04/21 15:33	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/08/21 13:36	kja

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Project ID: 3100-PO205
Sample ID: MW-07

ACZ Sample ID: **L67355-02**
Date Sampled: 07/20/21 10:40
Date Received: 07/23/21
Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	179			mg/L	2	20	07/29/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Total Alkalinity		1	179			mg/L	2	20	07/29/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			0.0			%			08/18/21 0:00	calc
Sum of Anions			13			meq/L			08/18/21 0:00	calc
Sum of Cations			13			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	27.5		*	mg/L	0.5	2	08/14/21 11:13	wtc
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	UH	*	mg/L	0.003	0.01	08/04/21 15:01	md
Fluoride	SM4500F-C	1	0.42			mg/L	0.15	0.35	08/10/21 13:28	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	1.56		*	mg/L	0.02	0.1	08/11/21 0:56	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	07/31/21 19:46	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	890			mg/L	20	40	07/27/21 14:04	emk
Residue, Non-Filterable (TSS) @105C	SM2540D	1	5.0	B	*	mg/L	5	20	07/27/21 14:49	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	20	418		*	mg/L	20	100	08/16/21 11:19	syw
TDS (calculated)	Calculation		785			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.13						08/18/21 0:00	calc

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Project ID: 3100-PO205

Sample ID: MW-06

ACZ Sample ID: **L67355-03**

Date Sampled: 07/21/21 09:58

Date Received: 07/23/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						08/02/21 14:27	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/28/21 11:15	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/06/21 9:35	mfm
Total Hot Plate Digestion	M200.2 ICP								08/06/21 16:04	jlw

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Project ID: 3100-PO205

Sample ID: MW-06

ACZ Sample ID: **L67355-03**

Date Sampled: 07/21/21 09:58

Date Received: 07/23/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/04/21 15:36	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/08/21 13:39	kja
Antimony, dissolved	M200.8 ICP-MS	1	0.00053	B		mg/L	0.0004	0.002	08/09/21 15:47	mfm
Antimony, total	M200.8 ICP-MS	1	0.00041	B		mg/L	0.0004	0.002	08/09/21 16:41	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	0.00026	B		mg/L	0.0002	0.001	08/09/21 15:47	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 16:41	mfm
Boron, dissolved	M200.7 ICP	1	0.030	B		mg/L	0.03	0.1	08/04/21 15:36	kja
Boron, total	M200.7 ICP	1	0.053	B		mg/L	0.03	0.1	08/08/21 13:39	kja
Calcium, dissolved	M200.7 ICP	1	94.7			mg/L	0.1	0.5	08/04/21 15:36	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/04/21 15:36	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/08/21 13:39	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/04/21 15:36	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/08/21 13:39	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/04/21 15:36	kja
Iron, total	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/08/21 13:39	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:47	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:41	mfm
Magnesium, dissolved	M200.7 ICP	1	40.3			mg/L	0.2	1	08/04/21 15:36	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/04/21 15:36	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/08/21 13:39	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 15:06	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	08/03/21 12:29	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.0367			mg/L	0.0002	0.0005	08/09/21 15:47	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.0371			mg/L	0.0002	0.0005	08/09/21 16:41	mfm
Potassium, dissolved	M200.7 ICP	1	5.15			mg/L	0.2	1	08/04/21 15:36	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00098			mg/L	0.0001	0.00025	08/09/21 15:47	mfm
Selenium, total	M200.8 ICP-MS	1	0.00093			mg/L	0.0001	0.00025	08/09/21 16:41	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:47	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:41	mfm
Sodium, dissolved	M200.7 ICP	1	24.3			mg/L	0.2	1	08/04/21 15:36	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:47	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:41	mfm
Uranium, dissolved	M200.8 ICP-MS	1	1.30		*	mg/L	0.0001	0.0005	08/09/21 15:47	mfm
Uranium, total	M200.8 ICP-MS	1	1.30			mg/L	0.0001	0.0005	08/09/21 16:41	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/04/21 15:36	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/08/21 13:39	kja

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Project ID: 3100-PO205
Sample ID: MW-06

ACZ Sample ID: **L67355-03**
Date Sampled: 07/21/21 09:58
Date Received: 07/23/21
Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	193			mg/L	2	20	07/29/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Total Alkalinity		1	193			mg/L	2	20	07/29/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-3.7			%			08/18/21 0:00	calc
Sum of Anions			9.9			meq/L			08/18/21 0:00	calc
Sum of Cations			9.2			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	25.7		*	mg/L	0.5	2	08/14/21 11:13	wtc
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/03/21 15:58	md
Fluoride	SM4500F-C	1	0.43			mg/L	0.15	0.35	08/10/21 13:31	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	1.43		*	mg/L	0.02	0.1	08/11/21 0:58	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	07/31/21 19:49	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	614			mg/L	20	40	07/28/21 12:34	eep
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	07/27/21 14:51	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	10	254		*	mg/L	10	50	08/16/21 11:11	syw
TDS (calculated)	Calculation		562			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.09						08/18/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-19

ACZ Sample ID: **L67355-04**

Date Sampled: 07/21/21 11:04

Date Received: 07/23/21

Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						08/02/21 14:35	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/28/21 11:22	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/06/21 9:35	mfm
Total Hot Plate Digestion	M200.2 ICP								08/06/21 16:18	jlw

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-19

ACZ Sample ID: **L67355-04**

Date Sampled: 07/21/21 11:04

Date Received: 07/23/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/04/21 15:39	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/08/21 13:42	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 15:49	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 16:43	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 15:49	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 16:43	mfm
Boron, dissolved	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	08/04/21 15:39	kja
Boron, total	M200.7 ICP	1	0.048	B		mg/L	0.03	0.1	08/08/21 13:42	kja
Calcium, dissolved	M200.7 ICP	1	57.6			mg/L	0.1	0.5	08/04/21 15:39	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/04/21 15:39	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/08/21 13:42	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/04/21 15:39	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/08/21 13:42	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/04/21 15:39	kja
Iron, total	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/08/21 13:42	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:49	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:43	mfm
Magnesium, dissolved	M200.7 ICP	1	37.0			mg/L	0.2	1	08/04/21 15:39	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/04/21 15:39	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/08/21 13:42	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 15:07	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	08/03/21 12:32	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.0381			mg/L	0.0002	0.0005	08/09/21 15:49	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.0381			mg/L	0.0002	0.0005	08/09/21 16:43	mfm
Potassium, dissolved	M200.7 ICP	1	4.00			mg/L	0.2	1	08/04/21 15:39	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00055			mg/L	0.0001	0.00025	08/09/21 15:49	mfm
Selenium, total	M200.8 ICP-MS	1	0.00051			mg/L	0.0001	0.00025	08/09/21 16:43	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:49	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:43	mfm
Sodium, dissolved	M200.7 ICP	1	20.8			mg/L	0.2	1	08/04/21 15:39	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:49	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:43	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.916		*	mg/L	0.0001	0.0005	08/09/21 15:49	mfm
Uranium, total	M200.8 ICP-MS	1	0.928			mg/L	0.0001	0.0005	08/09/21 16:43	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/04/21 15:39	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/08/21 13:42	kja

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Project ID: 3100-PO205
Sample ID: MW-19

ACZ Sample ID: **L67355-04**
Date Sampled: 07/21/21 11:04
Date Received: 07/23/21
Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	173			mg/L	2	20	07/29/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Total Alkalinity		1	173			mg/L	2	20	07/29/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-0.7			%			08/18/21 0:00	calc
Sum of Anions			7.0			meq/L			08/18/21 0:00	calc
Sum of Cations			6.9			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	18.2		*	mg/L	0.5	2	08/14/21 11:13	wtc
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/03/21 15:58	md
Fluoride	SM4500F-C	1	0.45			mg/L	0.15	0.35	08/10/21 13:50	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.730		*	mg/L	0.02	0.1	08/11/21 1:03	pjb
Phosphate, total	Calculation based on total Phosphorus		0.0372	B		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.012	B	*	mg/L	0.01	0.05	07/31/21 19:50	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	434			mg/L	20	40	07/28/21 12:36	eep
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	07/27/21 14:53	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	144		*	mg/L	5	25	08/16/21 11:11	syw
TDS (calculated)	Calculation		388			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.12						08/18/21 0:00	calc

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Project ID: 3100-PO205
Sample ID: MW-0

ACZ Sample ID: **L67355-05**
Date Sampled: 07/21/21 13:19
Date Received: 07/23/21
Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						08/02/21 14:43	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/28/21 11:30	emh
Total Hot Plate Digestion	M200.2 ICP								08/06/21 16:32	jlw
Total Hot Plate Digestion	M200.2 ICP-MS								08/06/21 9:35	mfm

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Project ID: 3100-PO205

Sample ID: MW-0

ACZ Sample ID: **L67355-05**

Date Sampled: 07/21/21 13:19

Date Received: 07/23/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/04/21 15:48	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/08/21 13:46	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 15:51	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 16:48	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 15:51	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 16:48	mfm
Boron, dissolved	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	08/04/21 15:48	kja
Boron, total	M200.7 ICP	1	0.038	B		mg/L	0.03	0.1	08/08/21 13:46	kja
Calcium, dissolved	M200.7 ICP	1	68.4			mg/L	0.1	0.5	08/04/21 15:48	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/04/21 15:48	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/08/21 13:46	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/04/21 15:48	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/08/21 13:46	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/04/21 15:48	kja
Iron, total	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/08/21 13:46	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:51	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:48	mfm
Magnesium, dissolved	M200.7 ICP	1	21.3			mg/L	0.2	1	08/04/21 15:48	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/04/21 15:48	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/08/21 13:46	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 15:09	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	08/03/21 12:33	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.0119			mg/L	0.0002	0.0005	08/09/21 15:51	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.0120			mg/L	0.0002	0.0005	08/09/21 16:48	mfm
Potassium, dissolved	M200.7 ICP	1	3.22			mg/L	0.2	1	08/04/21 15:48	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00012	B		mg/L	0.0001	0.00025	08/09/21 15:51	mfm
Selenium, total	M200.8 ICP-MS	1	0.00023	B		mg/L	0.0001	0.00025	08/09/21 16:48	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:51	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:48	mfm
Sodium, dissolved	M200.7 ICP	1	15.7			mg/L	0.2	1	08/04/21 15:48	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:51	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:48	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.316		*	mg/L	0.0001	0.0005	08/09/21 15:51	mfm
Uranium, total	M200.8 ICP-MS	1	0.322			mg/L	0.0001	0.0005	08/09/21 16:48	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/04/21 15:48	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/08/21 13:46	kja

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Project ID: 3100-PO205
Sample ID: MW-0

ACZ Sample ID: **L67355-05**
Date Sampled: 07/21/21 13:19
Date Received: 07/23/21
Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	185			mg/L	2	20	07/29/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Total Alkalinity		1	185			mg/L	2	20	07/29/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			0.0			%			08/18/21 0:00	calc
Sum of Anions			5.9			meq/L			08/18/21 0:00	calc
Sum of Cations			5.9			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	19.2		*	mg/L	0.5	2	08/14/21 11:19	wtc
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/03/21 15:59	md
Fluoride	SM4500F-C	1	0.27	B		mg/L	0.15	0.35	08/10/21 13:54	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.755		*	mg/L	0.02	0.1	08/11/21 1:04	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	07/31/21 19:51	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	372			mg/L	20	40	07/28/21 12:37	eep
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	07/27/21 14:55	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	78.9		*	mg/L	5	25	08/16/21 11:11	syw
TDS (calculated)	Calculation		320			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.16						08/18/21 0:00	calc

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Project ID: 3100-PO205
Sample ID: MW-00

ACZ Sample ID: **L67355-06**
Date Sampled: 07/21/21 14:30
Date Received: 07/23/21
Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						08/02/21 14:51	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/28/21 11:37	emh
Total Hot Plate Digestion	M200.2 ICP-MS								08/06/21 9:35	mfm
Total Hot Plate Digestion	M200.2 ICP								08/06/21 16:46	jlw

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Project ID: 3100-PO205

Sample ID: MW-00

ACZ Sample ID: **L67355-06**

Date Sampled: 07/21/21 14:30

Date Received: 07/23/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/04/21 15:51	kja
Aluminum, total	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/08/21 13:49	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 15:53	mfm
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/09/21 16:50	mfm
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 15:53	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/09/21 16:50	mfm
Boron, dissolved	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	08/04/21 15:51	kja
Boron, total	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	08/08/21 13:49	kja
Calcium, dissolved	M200.7 ICP	1	40.9			mg/L	0.1	0.5	08/04/21 15:51	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/04/21 15:51	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/08/21 13:49	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/04/21 15:51	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/08/21 13:49	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/04/21 15:51	kja
Iron, total	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/08/21 13:49	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:53	mfm
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:50	mfm
Magnesium, dissolved	M200.7 ICP	1	11.6			mg/L	0.2	1	08/04/21 15:51	kja
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/04/21 15:51	kja
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/08/21 13:49	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 16:20	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/04/21 14:26	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00057			mg/L	0.0002	0.0005	08/09/21 15:53	mfm
Molybdenum, total	M200.8 ICP-MS	1	0.00054			mg/L	0.0002	0.0005	08/09/21 16:50	mfm
Potassium, dissolved	M200.7 ICP	1	1.97			mg/L	0.2	1	08/04/21 15:51	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00023	B		mg/L	0.0001	0.00025	08/09/21 15:53	mfm
Selenium, total	M200.8 ICP-MS	1	0.00020	B		mg/L	0.0001	0.00025	08/09/21 16:50	mfm
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:53	mfm
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:50	mfm
Sodium, dissolved	M200.7 ICP	1	15.3			mg/L	0.2	1	08/04/21 15:51	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 15:53	mfm
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/09/21 16:50	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.00482		*	mg/L	0.0001	0.0005	08/09/21 15:53	mfm
Uranium, total	M200.8 ICP-MS	1	0.00496			mg/L	0.0001	0.0005	08/09/21 16:50	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/04/21 15:51	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/08/21 13:49	kja

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Project ID: 3100-PO205
Sample ID: MW-00

ACZ Sample ID: **L67355-06**
Date Sampled: 07/21/21 14:30
Date Received: 07/23/21
Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	117		*	mg/L	2	20	07/29/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	07/29/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	07/29/21 0:00	emk
Total Alkalinity		1	117		*	mg/L	2	20	07/29/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-2.6			%			08/18/21 0:00	calc
Sum of Anions			3.9			meq/L			08/18/21 0:00	calc
Sum of Cations			3.7			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	40.1		*	mg/L	0.5	2	08/14/21 11:19	wtc
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/03/21 16:02	md
Fluoride	SM4500F-C	1	0.29	B	*	mg/L	0.15	0.35	08/10/21 14:02	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.115		*	mg/L	0.02	0.1	08/11/21 1:05	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	07/31/21 19:52	pjb
Residue, Filterable (TDS) @180C	SM2540C	1	228		*	mg/L	20	40	07/28/21 12:39	eep
Residue, Non-Filterable (TSS) @105C	SM2540D	1	5.0	B	*	mg/L	5	20	07/27/21 14:58	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	18.9		*	mg/L	1	5	08/16/21 10:39	syw
TDS (calculated)	Calculation		200			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.14						08/18/21 0:00	calc

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Project ID: 3100-PO205
Sample ID: RAW FEED

ACZ Sample ID: **L67355-07**
Date Sampled: 07/21/21 15:15
Date Received: 07/23/21
Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						08/02/21 14:58	md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								07/28/21 11:45	emh
Total Hot Plate Digestion	M200.2 ICP								08/06/21 17:00	jlw
Total Hot Plate Digestion	M200.2 ICP-MS								08/06/21 9:35	mfm

Ensero Solutions

Project ID: 3100-PO205

Sample ID: RAW FEED

ACZ Sample ID: **L67355-07**

Date Sampled: 07/21/21 15:15

Date Received: 07/23/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	08/04/21 15:54	kja
Aluminum, total	M200.7 ICP	2	<0.1	U		mg/L	0.1	0.5	08/08/21 13:52	kja
Antimony, dissolved	M200.8 ICP-MS	2	<0.0008	U		mg/L	0.0008	0.004	08/09/21 15:54	mfm
Antimony, total	M200.8 ICP-MS	2	<0.0008	U		mg/L	0.0008	0.004	08/09/21 16:55	mfm
Arsenic, dissolved	M200.8 ICP-MS	2	0.0302			mg/L	0.0004	0.002	08/09/21 15:54	mfm
Arsenic, total	M200.8 ICP-MS	2	0.0277			mg/L	0.0004	0.002	08/09/21 16:55	mfm
Boron, dissolved	M200.7 ICP	2	0.293			mg/L	0.06	0.2	08/04/21 15:54	kja
Boron, total	M200.7 ICP	2	0.319			mg/L	0.06	0.2	08/08/21 13:52	kja
Calcium, dissolved	M200.7 ICP	2	349			mg/L	0.2	1	08/04/21 15:54	kja
Chromium, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/04/21 15:54	kja
Chromium, total	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/08/21 13:52	kja
Copper, dissolved	M200.7 ICP	2	<0.02	U		mg/L	0.02	0.1	08/04/21 15:54	kja
Copper, total	M200.7 ICP	2	0.039	B		mg/L	0.02	0.1	08/08/21 13:52	kja
Iron, dissolved	M200.7 ICP	2	10.00			mg/L	0.12	0.3	08/04/21 15:54	kja
Iron, total	M200.7 ICP	2	10.2			mg/L	0.12	0.3	08/08/21 13:52	kja
Lead, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	08/09/21 15:54	mfm
Lead, total	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	08/09/21 16:55	mfm
Magnesium, dissolved	M200.7 ICP	2	271			mg/L	0.4	2	08/04/21 15:54	kja
Manganese, dissolved	M200.7 ICP	2	0.806			mg/L	0.02	0.1	08/04/21 15:54	kja
Manganese, total	M200.7 ICP	2	0.853			mg/L	0.02	0.1	08/08/21 13:52	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/29/21 16:21	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/04/21 14:29	mlh
Molybdenum, dissolved	M200.8 ICP-MS	2	1.18			mg/L	0.0004	0.001	08/09/21 15:54	mfm
Molybdenum, total	M200.8 ICP-MS	2	1.21			mg/L	0.0004	0.001	08/09/21 16:55	mfm
Potassium, dissolved	M200.7 ICP	2	30.2			mg/L	0.4	2	08/04/21 15:54	kja
Selenium, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.0005	08/09/21 15:54	mfm
Selenium, total	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.0005	08/09/21 16:55	mfm
Silver, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	08/09/21 15:54	mfm
Silver, total	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	08/09/21 16:55	mfm
Sodium, dissolved	M200.7 ICP	2	297			mg/L	0.4	2	08/04/21 15:54	kja
Thallium, dissolved	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	08/09/21 15:54	mfm
Thallium, total	M200.8 ICP-MS	2	<0.0002	U		mg/L	0.0002	0.001	08/09/21 16:55	mfm
Uranium, dissolved	M200.8 ICP-MS	200	18.7			mg/L	0.02	0.1	08/10/21 12:50	bsu
Uranium, total	M200.8 ICP-MS	200	19.9			mg/L	0.02	0.1	08/10/21 18:01	bsu
Zinc, dissolved	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/04/21 15:54	kja
Zinc, total	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.1	08/08/21 13:52	kja

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Project ID: 3100-PO205
Sample ID: RAW FEED

ACZ Sample ID: **L67355-07**
Date Sampled: 07/21/21 15:15
Date Received: 07/23/21
Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	846			mg/L	2	20	07/29/21 0:00	emk
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/29/21 0:00	emk
Total Alkalinity		1	846		*	mg/L	2	20	07/29/21 0:00	emk
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-1.8			%			08/18/21 0:00	calc
Sum of Anions			56			meq/L			08/18/21 0:00	calc
Sum of Cations			54			meq/L			08/18/21 0:00	calc
Chloride	SM4500Cl-E	1	55.0		*	mg/L	0.5	2	08/14/21 11:19	wtc
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/03/21 16:03	md
Fluoride	SM4500F-C	1	1.52			mg/L	0.15	0.35	08/10/21 14:11	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	<0.02	U	*	mg/L	0.02	0.1	08/11/21 1:07	pjb
Phosphate, total	Calculation based on total Phosphorus		0.27			mg/L	0.03	0.2	08/18/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	0.086		*	mg/L	0.01	0.05	07/31/21 19:55	pjb
Residue, Filterable (TDS) @180C	SM2540C	5	3260			mg/L	100	200	07/28/21 12:41	eep
Residue, Non-Filterable (TSS) @105C	SM2540D	1	32.0		*	mg/L	5	20	07/27/21 15:00	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	50	1790		*	mg/L	50	250	08/16/21 11:18	syw
TDS (calculated)	Calculation		3320			mg/L			08/18/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		0.98						08/18/21 0:00	calc


Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.
(5)	Standard Methods for the Examination of Water and Wastewater.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5)	If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

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ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3

SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524234													
WG524234PBW1	PBW	07/28/21 17:21				U	mg/L		-20	20			
WG524234LCSW3	LCSW	07/28/21 17:40	WC210721-3	820.0001		804.8	mg/L	98	90	110			
WG524234LCSW6	LCSW	07/28/21 21:22	WC210721-3	820.0001		822.7	mg/L	100	90	110			
WG524234PBW2	PBW	07/28/21 21:29				U	mg/L		-20	20			
WG524234LCSW9	LCSW	07/29/21 0:52	WC210721-3	820.0001		811.9	mg/L	99	90	110			
WG524234PBW3	PBW	07/29/21 0:59				U	mg/L		-20	20			
L67355-05DUP	DUP	07/29/21 3:55			185	184.8	mg/L				0	20	
WG524234LCSW12	LCSW	07/29/21 4:15	WC210721-3	820.0001		813.6	mg/L	99	90	110			
WG524234PBW4	PBW	07/29/21 4:22				U	mg/L		-20	20			
L67357-01DUP	DUP	07/29/21 5:57			2.5	2.2	mg/L				13	20	RA
WG524234LCSW15	LCSW	07/29/21 7:47	WC210721-3	820.0001		816.7	mg/L	100	90	110			

Aluminum, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524648													
WG524648ICV	ICV	08/04/21 15:09	II210803-4	2		1.957	mg/L	98	95	105			
WG524648ICB	ICB	08/04/21 15:15				U	mg/L		-0.15	0.15			
WG524648PQV	PQV	08/04/21 15:18	II210804-2	.250325		.236	mg/L	94	70	130			
WG524648SIC	SIC	08/04/21 15:21	II210707-4	200.410325		202	mg/L	101	1	200			
WG524648LFB	LFB	08/04/21 15:27	II210714-2	1.0008		1.009	mg/L	101	85	115			
L67355-04AS	AS	08/04/21 15:42	II210714-2	1.0008	U	1.003	mg/L	100	85	115			
L67355-04ASD	ASD	08/04/21 15:45	II210714-2	1.0008	U	1.002	mg/L	100	85	115	0	20	
WG524648CCV1	CCV	08/04/21 15:58	II210803-5	1		.964	mg/L	96	90	110			
WG524648CCB1	CCB	08/04/21 16:01				U	mg/L		-0.15	0.15			
WG524648CCV2	CCV	08/04/21 16:35	II210803-5	1		.947	mg/L	95	90	110			
WG524648CCB2	CCB	08/04/21 16:38				U	mg/L		-0.15	0.15			
WG524648CCV3	CCV	08/04/21 16:57	II210803-5	1		.946	mg/L	95	90	110			
WG524648CCB3	CCB	08/04/21 17:00				U	mg/L		-0.15	0.15			

Aluminum, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524871													
WG524871ICV	ICV	08/08/21 13:06	II210801-1	2		1.943	mg/L	97	95	105			
WG524871ICB	ICB	08/08/21 13:12				U	mg/L		-0.15	0.15			
WG524871PQV	PQV	08/08/21 13:15	II210804-2	.250325		.244	mg/L	97	70	130			
WG524871SIC	SIC	08/08/21 13:18	II210707-5	200.410325		201.5	mg/L	101	1	200			
WG524812LRB	LRB	08/08/21 13:24				U	mg/L		-0.11	0.11			
WG524812LFB	LFB	08/08/21 13:27	II210805-2	1.0008		1.023	mg/L	102	85	115			
WG524871CCV1	CCV	08/08/21 13:55	II210719-1	1		.966	mg/L	97	90	110			
WG524871CCB1	CCB	08/08/21 13:58				U	mg/L		-0.15	0.15			
L67362-01LFM	LFM	08/08/21 14:04	II210805-2	1.0008	U	1.025	mg/L	102	70	130			
L67362-01LFMD	LFMD	08/08/21 14:07	II210805-2	1.0008	U	1.045	mg/L	104	70	130	2	20	
WG524871CCV2	CCV	08/08/21 14:31	II210719-1	1		.95	mg/L	95	90	110			
WG524871CCB2	CCB	08/08/21 14:34				U	mg/L		-0.15	0.15			
WG524871CCV3	CCV	08/08/21 14:56	II210719-1	1		.954	mg/L	95	90	110			
WG524871CCB3	CCB	08/08/21 14:59				U	mg/L		-0.15	0.15			

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ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Antimony, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524943													
WG524943ICV	ICV	08/09/21 15:16	MS210727-2	.0201		.01967	mg/L	98	90	110			
WG524943ICB	ICB	08/09/21 15:18				U	mg/L		-0.00088	0.00088			
WG524943LFB	LFB	08/09/21 15:20	MS210727-5	.01		.00913	mg/L	91	85	115			
L67355-01AS	AS	08/09/21 15:36	MS210727-5	.01	.00205	.0108	mg/L	88	70	130			
WG524943CCV1	CCV	08/09/21 15:38	MS210806-2	.0125		.01273	mg/L	102	90	110			
WG524943CCB1	CCB	08/09/21 15:40				U	mg/L		-0.0012	0.0012			
L67355-01ASD	ASD	08/09/21 15:44	MS210727-5	.01	.00205	.01035	mg/L	83	70	130	4	20	
L67453-02AS	AS	08/09/21 16:00	MS210727-5	.02	.00442	.02285	mg/L	92	70	130			
WG524943CCV2	CCV	08/09/21 16:02	MS210806-2	.0125		.01267	mg/L	101	90	110			
WG524943CCB2	CCB	08/09/21 16:03				U	mg/L		-0.0012	0.0012			
L67453-02ASD	ASD	08/09/21 16:05	MS210727-5	.02	.00442	.02298	mg/L	93	70	130	1	20	
WG524943CCV3	CCV	08/09/21 16:14	MS210806-2	.0125		.01248	mg/L	100	90	110			
WG524943CCB3	CCB	08/09/21 16:16				U	mg/L		-0.0012	0.0012			

Antimony, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524949													
WG524949ICV	ICV	08/09/21 16:30	MS210727-2	.0201		.01917	mg/L	95	90	110			
WG524949ICB	ICB	08/09/21 16:32				U	mg/L		-0.0012	0.0012			
WG524949LRB	LRB	08/09/21 16:34				U	mg/L		-0.00088	0.00088			
WG524949LFB	LFB	08/09/21 16:36	MS210727-5	.01		.00987	mg/L	99	85	115			
L67355-04LFM	LFM	08/09/21 16:44	MS210727-5	.01	U	.01017	mg/L	102	70	130			
L67355-04LFMD	LFMD	08/09/21 16:46	MS210727-5	.01	U	.01017	mg/L	102	70	130	0	20	
WG524949CCV1	CCV	08/09/21 16:52	MS210806-2	.0125		.01207	mg/L	97	90	110			
WG524949CCB1	CCB	08/09/21 16:53				U	mg/L		-0.0012	0.0012			
WG524949CCV2	CCV	08/09/21 17:13	MS210806-2	.0125		.01204	mg/L	96	90	110			
WG524949CCB2	CCB	08/09/21 17:15				U	mg/L		-0.0012	0.0012			

Arsenic, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524943													
WG524943ICV	ICV	08/09/21 15:16	MS210727-2	.05		.0495	mg/L	99	90	110			
WG524943ICB	ICB	08/09/21 15:18				U	mg/L		-0.00044	0.00044			
WG524943LFB	LFB	08/09/21 15:20	MS210727-5	.05005		.05233	mg/L	105	85	115			
L67355-01AS	AS	08/09/21 15:36	MS210727-5	.05005	U	.05561	mg/L	111	70	130			
WG524943CCV1	CCV	08/09/21 15:38	MS210806-2	.1001		.10187	mg/L	102	90	110			
WG524943CCB1	CCB	08/09/21 15:40				U	mg/L		-0.0006	0.0006			
L67355-01ASD	ASD	08/09/21 15:44	MS210727-5	.05005	U	.05319	mg/L	106	70	130	4	20	
L67453-02AS	AS	08/09/21 16:00	MS210727-5	.1001	.0337	.12949	mg/L	96	70	130			
WG524943CCV2	CCV	08/09/21 16:02	MS210806-2	.1001		.1006	mg/L	100	90	110			
WG524943CCB2	CCB	08/09/21 16:03				U	mg/L		-0.0006	0.0006			
L67453-02ASD	ASD	08/09/21 16:05	MS210727-5	.1001	.0337	.12613	mg/L	92	70	130	3	20	
WG524943CCV3	CCV	08/09/21 16:14	MS210806-2	.1001		.10146	mg/L	101	90	110			
WG524943CCB3	CCB	08/09/21 16:16				U	mg/L		-0.0006	0.0006			

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ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524949													
WG524949ICV	ICV	08/09/21 16:30	MS210727-2	.05		.04811	mg/L	96	90	110			
WG524949ICB	ICB	08/09/21 16:32				U	mg/L		-0.0006	0.0006			
WG524791LRB	LRB	08/09/21 16:34				U	mg/L		-0.00044	0.00044			
WG524791LFB	LFB	08/09/21 16:36	MS210727-5	.05005		.04663	mg/L	93	85	115			
L67355-04LFM	LFM	08/09/21 16:44	MS210727-5	.05005	U	.04694	mg/L	94	70	130			
L67355-04LFMD	LFMD	08/09/21 16:46	MS210727-5	.05005	U	.04669	mg/L	93	70	130	1	20	
WG524949CCV1	CCV	08/09/21 16:52	MS210806-2	.1001		.09821	mg/L	98	90	110			
WG524949CCB1	CCB	08/09/21 16:53				U	mg/L		-0.0006	0.0006			
WG524949CCV2	CCV	08/09/21 17:13	MS210806-2	.1001		.09756	mg/L	97	90	110			
WG524949CCB2	CCB	08/09/21 17:15				U	mg/L		-0.0006	0.0006			

Boron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524648													
WG524648ICV	ICV	08/04/21 15:09	II210803-4	2		1.981	mg/L	99	95	105			
WG524648ICB	ICB	08/04/21 15:15				U	mg/L		-0.09	0.09			
WG524648PQV	PQV	08/04/21 15:18	II210804-2	.1001		.084	mg/L	84	70	130			
WG524648SIC	SIC	08/04/21 15:21	II210707-4	.1001		.086	mg/L	86	80	120			
WG524648LFB	LFB	08/04/21 15:27	II210714-2	.5005		.494	mg/L	99	85	115			
L67355-04AS	AS	08/04/21 15:42	II210714-2	.5005	U	.529	mg/L	106	85	115			
L67355-04ASD	ASD	08/04/21 15:45	II210714-2	.5005	U	.535	mg/L	107	85	115	1	20	
WG524648CCV1	CCV	08/04/21 15:58	II210803-5	1		.956	mg/L	96	90	110			
WG524648CCB1	CCB	08/04/21 16:01				U	mg/L		-0.09	0.09			
WG524648CCV2	CCV	08/04/21 16:35	II210803-5	1		.971	mg/L	97	90	110			
WG524648CCB2	CCB	08/04/21 16:38				U	mg/L		-0.09	0.09			
WG524648CCV3	CCV	08/04/21 16:57	II210803-5	1		.955	mg/L	96	90	110			
WG524648CCB3	CCB	08/04/21 17:00				U	mg/L		-0.09	0.09			

Boron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524871													
WG524871ICV	ICV	08/08/21 13:06	II210801-1	2		1.931	mg/L	97	95	105			
WG524871ICB	ICB	08/08/21 13:12				U	mg/L		-0.09	0.09			
WG524871PQV	PQV	08/08/21 13:15	II210804-2	.1001		.111	mg/L	111	70	130			
WG524871SIC	SIC	08/08/21 13:18	II210707-5	.1001		.108	mg/L	108	80	120			
WG524812LRB	LRB	08/08/21 13:24				U	mg/L		-0.066	0.066			
WG524812LFB	LFB	08/08/21 13:27	II210805-2	.5005		.501	mg/L	100	85	115			
WG524871CCV1	CCV	08/08/21 13:55	II210719-1	1		.966	mg/L	97	90	110			
WG524871CCB1	CCB	08/08/21 13:58				U	mg/L		-0.09	0.09			
L67362-01LFM	LFM	08/08/21 14:04	II210805-2	.5005	.039	.535	mg/L	99	70	130			
L67362-01LFMD	LFMD	08/08/21 14:07	II210805-2	.5005	.039	.537	mg/L	100	70	130	0	20	
WG524871CCV2	CCV	08/08/21 14:31	II210719-1	1		.953	mg/L	95	90	110			
WG524871CCB2	CCB	08/08/21 14:34				U	mg/L		-0.09	0.09			
WG524871CCV3	CCV	08/08/21 14:56	II210719-1	1		.956	mg/L	96	90	110			
WG524871CCB3	CCB	08/08/21 14:59				U	mg/L		-0.09	0.09			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524648													
WG524648ICV	ICV	08/04/21 15:09	II210803-4	100		98.7	mg/L	99	95	105			
WG524648ICB	ICB	08/04/21 15:15				U	mg/L		-0.3	0.3			
WG524648PQV	PQV	08/04/21 15:18	II210804-2	.50015		.49	mg/L	98	70	130			
WG524648SIC	SIC	08/04/21 15:21	II210707-4	200.56015		195.1	mg/L	97	1	200			
WG524648LFB	LFB	08/04/21 15:27	II210714-2	67.99734		68.35	mg/L	101	85	115			
L67355-04AS	AS	08/04/21 15:42	II210714-2	67.99734	57.6	123.1	mg/L	96	85	115			
L67355-04ASD	ASD	08/04/21 15:45	II210714-2	67.99734	57.6	124.1	mg/L	98	85	115	1	20	
WG524648CCV1	CCV	08/04/21 15:58	II210803-5	50		48.27	mg/L	97	90	110			
WG524648CCB1	CCB	08/04/21 16:01				U	mg/L		-0.3	0.3			
WG524648CCV2	CCV	08/04/21 16:35	II210803-5	50		48.33	mg/L	97	90	110			
WG524648CCB2	CCB	08/04/21 16:38				U	mg/L		-0.3	0.3			
WG524648CCV3	CCV	08/04/21 16:57	II210803-5	50		48.18	mg/L	96	90	110			
WG524648CCB3	CCB	08/04/21 17:00				U	mg/L		-0.3	0.3			

Chloride

SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525283													
WG525283ICB	ICB	08/14/21 10:42				U	mg/L		-1.5	1.5			
WG525283ICV	ICV	08/14/21 10:42	WI210503-1	54.89		56.71	mg/L	103	90	110			
WG525283CCV1	CCV	08/14/21 11:09	WI210203-7	50.05		49.23	mg/L	98	90	110			
WG525283CCB1	CCB	08/14/21 11:09				U	mg/L		-1.5	1.5			
WG525283LFB1	LFB	08/14/21 11:09	WI200327-3	30.03		31.35	mg/L	104	90	110			
WG525283CCV2	CCV	08/14/21 11:11	WI210203-7	50.05		49.37	mg/L	99	90	110			
WG525283CCB2	CCB	08/14/21 11:11				U	mg/L		-1.5	1.5			
WG525283CCV3	CCV	08/14/21 11:13	WI210203-7	50.05		49.49	mg/L	99	90	110			
WG525283CCB3	CCB	08/14/21 11:13				U	mg/L		-1.5	1.5			
WG525283LFB2	LFB	08/14/21 11:13	WI200327-3	30.03		31.49	mg/L	105	90	110			
WG525283CCV4	CCV	08/14/21 11:18	WI210203-7	50.05		48.93	mg/L	98	90	110			
WG525283CCB4	CCB	08/14/21 11:18				U	mg/L		-1.5	1.5			
L67363-02AS	AS	08/14/21 11:19	WI200327-3	30.03	36.5	62.64	mg/L	87	90	110			M2
L67386-04DUP	DUP	08/14/21 11:19			1.59	1.35	mg/L				16	20	RA
WG525283CCV5	CCV	08/14/21 11:20	WI210203-7	50.05		49.53	mg/L	99	90	110			
WG525283CCB5	CCB	08/14/21 11:20				U	mg/L		-1.5	1.5			
WG525283CCV6	CCV	08/14/21 11:40	WI210203-7	50.05		49.13	mg/L	98	90	110			
WG525283CCB6	CCB	08/14/21 11:40				U	mg/L		-1.5	1.5			
WG525283CCV7	CCV	08/14/21 11:40	WI210203-7	50.05		48.89	mg/L	98	90	110			
WG525283CCB7	CCB	08/14/21 11:40				U	mg/L		-1.5	1.5			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524648													
WG524648ICV	ICV	08/04/21 15:09	II210803-4	2		1.933	mg/L	97	95	105			
WG524648ICB	ICB	08/04/21 15:15				U	mg/L		-0.06	0.06			
WG524648PQV	PQV	08/04/21 15:18	II210804-2	.0502		.044	mg/L	88	70	130			
WG524648SIC	SIC	08/04/21 15:21	II210707-4	.1004		.098	mg/L	98	80	120			
WG524648LFB	LFB	08/04/21 15:27	II210714-2	.502		.483	mg/L	96	85	115			
L67355-04AS	AS	08/04/21 15:42	II210714-2	.502	U	.483	mg/L	96	85	115			
L67355-04ASD	ASD	08/04/21 15:45	II210714-2	.502	U	.489	mg/L	97	85	115	1	20	
WG524648CCV1	CCV	08/04/21 15:58	II210803-5	1		.943	mg/L	94	90	110			
WG524648CCB1	CCB	08/04/21 16:01				U	mg/L		-0.06	0.06			
WG524648CCV2	CCV	08/04/21 16:35	II210803-5	1		.948	mg/L	95	90	110			
WG524648CCB2	CCB	08/04/21 16:38				U	mg/L		-0.06	0.06			
WG524648CCV3	CCV	08/04/21 16:57	II210803-5	1		.941	mg/L	94	90	110			
WG524648CCB3	CCB	08/04/21 17:00				U	mg/L		-0.06	0.06			

Chromium, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524871													
WG524871ICV	ICV	08/08/21 13:06	II210801-1	2		1.904	mg/L	95	95	105			
WG524871ICB	ICB	08/08/21 13:12				U	mg/L		-0.06	0.06			
WG524871PQV	PQV	08/08/21 13:15	II210804-2	.0502		.057	mg/L	114	70	130			
WG524871SIC	SIC	08/08/21 13:18	II210707-5	.1004		.104	mg/L	104	80	120			
WG524871LRB	LRB	08/08/21 13:24				U	mg/L		-0.044	0.044			
WG524871LFB	LFB	08/08/21 13:27	II210805-2	.502		.499	mg/L	99	85	115			
WG524871CCV1	CCV	08/08/21 13:55	II210719-1	1		.952	mg/L	95	90	110			
WG524871CCB1	CCB	08/08/21 13:58				U	mg/L		-0.06	0.06			
L67362-01LFM	LFM	08/08/21 14:04	II210805-2	.502	U	.502	mg/L	100	70	130			
L67362-01LFMD	LFMD	08/08/21 14:07	II210805-2	.502	U	.502	mg/L	100	70	130	0	20	
WG524871CCV2	CCV	08/08/21 14:31	II210719-1	1		.95	mg/L	95	90	110			
WG524871CCB2	CCB	08/08/21 14:34				U	mg/L		-0.06	0.06			
WG524871CCV3	CCV	08/08/21 14:56	II210719-1	1		.953	mg/L	95	90	110			
WG524871CCB3	CCB	08/08/21 14:59				U	mg/L		-0.06	0.06			

Copper, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524648													
WG524648ICV	ICV	08/04/21 15:09	II210803-4	2		1.933	mg/L	97	95	105			
WG524648ICB	ICB	08/04/21 15:15				U	mg/L		-0.03	0.03			
WG524648PQV	PQV	08/04/21 15:18	II210804-2	.0502		.05	mg/L	100	70	130			
WG524648SIC	SIC	08/04/21 15:21	II210707-4	.1004		.092	mg/L	92	80	120			
WG524648LFB	LFB	08/04/21 15:27	II210714-2	.5		.482	mg/L	96	85	115			
L67355-04AS	AS	08/04/21 15:42	II210714-2	.5	U	.486	mg/L	97	85	115			
L67355-04ASD	ASD	08/04/21 15:45	II210714-2	.5	U	.492	mg/L	98	85	115	1	20	
WG524648CCV1	CCV	08/04/21 15:58	II210803-5	1		.951	mg/L	95	90	110			
WG524648CCB1	CCB	08/04/21 16:01				U	mg/L		-0.03	0.03			
WG524648CCV2	CCV	08/04/21 16:35	II210803-5	1		.951	mg/L	95	90	110			
WG524648CCB2	CCB	08/04/21 16:38				U	mg/L		-0.03	0.03			
WG524648CCV3	CCV	08/04/21 16:57	II210803-5	1		.943	mg/L	94	90	110			
WG524648CCB3	CCB	08/04/21 17:00				U	mg/L		-0.03	0.03			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524871													
WG524871ICV	ICV	08/08/21 13:06	II210801-1	2		1.906	mg/L	95	95	105			
WG524871ICB	ICB	08/08/21 13:12				U	mg/L		-0.03	0.03			
WG524871PQV	PQV	08/08/21 13:15	II210804-2	.0502		.053	mg/L	106	70	130			
WG524871SIC	SIC	08/08/21 13:18	II210707-5	.1004		.097	mg/L	97	80	120			
WG524812LRB	LRB	08/08/21 13:24				U	mg/L		-0.022	0.022			
WG524812LFB	LFB	08/08/21 13:27	II210805-2	.5		.499	mg/L	100	85	115			
WG524871CCV1	CCV	08/08/21 13:55	II210719-1	1		.947	mg/L	95	90	110			
WG524871CCB1	CCB	08/08/21 13:58				U	mg/L		-0.03	0.03			
L67362-01LFM	LFM	08/08/21 14:04	II210805-2	.5	U	.513	mg/L	103	70	130			
L67362-01LFMD	LFMD	08/08/21 14:07	II210805-2	.5	U	.513	mg/L	103	70	130	0	20	
WG524871CCV2	CCV	08/08/21 14:31	II210719-1	1		.944	mg/L	94	90	110			
WG524871CCB2	CCB	08/08/21 14:34				U	mg/L		-0.03	0.03			
WG524871CCV3	CCV	08/08/21 14:56	II210719-1	1		.933	mg/L	93	90	110			
WG524871CCB3	CCB	08/08/21 14:59				U	mg/L		-0.03	0.03			

Cyanide, WAD

SM4500-CN I,E-Colorimetric w/ distillation

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524573													
WG524573ICV	ICV	08/03/21 15:40	WI210802-7	.3		.3038	mg/L	101	90	110			
WG524573ICB	ICB	08/03/21 15:41				U	mg/L		-0.003	0.003			
WG524438LRB	LRB	08/03/21 15:41				U	mg/L		-0.003	0.003			
WG524438LFB	LFB	08/03/21 15:42	WI210802-4	.2		.1999	mg/L	100	90	110			
WG524573CCV1	CCV	08/03/21 15:50	WI210802-6	.25		.2516	mg/L	101	90	110			
WG524573CCB1	CCB	08/03/21 15:51				U	mg/L		-0.003	0.003			
WG524573CCV2	CCV	08/03/21 16:00	WI210802-6	.25		.252	mg/L	101	90	110			
WG524573CCB2	CCB	08/03/21 16:01				U	mg/L		-0.003	0.003			
L67371-01DUP	DUP	08/03/21 16:04			U	U	mg/L				0	20	RA
L67373-01LFM	LFM	08/03/21 16:06	WI210802-4	.2	U	.2021	mg/L	101	90	110			
WG524573CCV3	CCV	08/03/21 16:09	WI210802-6	.25		.2524	mg/L	101	90	110			
WG524573CCB3	CCB	08/03/21 16:09				U	mg/L		-0.003	0.003			
WG524676													
WG524676ICV	ICV	08/04/21 14:51	WI210802-7	.3		.3017	mg/L	101	90	110			
WG524676ICB	ICB	08/04/21 14:52				U	mg/L		-0.003	0.003			
WG524628LRB	LRB	08/04/21 14:53				U	mg/L		-0.003	0.003			
WG524628LFB	LFB	08/04/21 14:54	WI210802-4	.2		.2011	mg/L	101	90	110			
WG524676CCV1	CCV	08/04/21 15:02	WI210802-6	.25		.2517	mg/L	101	90	110			
WG524676CCB1	CCB	08/04/21 15:02				U	mg/L		-0.003	0.003			
L67390-01DUP	DUP	08/04/21 15:04			U	U	mg/L				0	20	RA
L67400-01LFM	LFM	08/04/21 15:06	WI210802-4	.2	U	.2025	mg/L	101	90	110			
WG524676CCV2	CCV	08/04/21 15:12	WI210802-6	.25		.2518	mg/L	101	90	110			
WG524676CCB2	CCB	08/04/21 15:13				U	mg/L		-0.003	0.003			
WG524676CCV3	CCV	08/04/21 15:20	WI210802-6	.25		.2522	mg/L	101	90	110			
WG524676CCB3	CCB	08/04/21 15:21				U	mg/L		-0.003	0.003			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride

SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524986													
WG524986ICV	ICV	08/10/21 13:07	WC210803-1	2.002		2.19	mg/L	109	90	110			
WG524986ICB	ICB	08/10/21 13:13				U	mg/L		-0.3	0.3			
WG524986PQV	PQV	08/10/21 13:16	WC210803-3	.3514		.39	mg/L	111	70	130			
WG524986LFB1	LFB	08/10/21 13:20	WC210803-9	5.02		5.21	mg/L	104	90	110			
L67355-03AS	AS	08/10/21 13:35	WC210803-9	5.02	.43	5.48	mg/L	101	90	110			
L67355-03ASD	ASD	08/10/21 13:42	WC210803-9	5.02	.43	5.48	mg/L	101	90	110	0	20	
WG524986CCV1	CCV	08/10/21 14:14	WC210803-1	2.002		2.16	mg/L	108	90	110			
WG524986CCB1	CCB	08/10/21 14:22				U	mg/L		-0.3	0.3			
WG524986CCV3	CCV	08/10/21 15:26	WC210803-1	2.002		2.16	mg/L	108	90	110			
WG524986CCB3	CCB	08/10/21 15:34				U	mg/L		-0.3	0.3			
WG524986LFB2	LFB	08/10/21 16:07	WC210803-9	5.02		5.19	mg/L	103	90	110			
WG524986CCV4	CCV	08/10/21 16:46	WC210803-1	2.002		2.07	mg/L	103	90	110			
WG524986CCB4	CCB	08/10/21 16:54				U	mg/L		-0.3	0.3			
WG524986CCV5	CCV	08/10/21 18:02	WC210803-1	2.002		2.12	mg/L	106	90	110			
WG524986CCB5	CCB	08/10/21 18:10				U	mg/L		-0.3	0.3			
WG524986CCV6	CCV	08/10/21 19:25	WC210803-1	2.002		2.14	mg/L	107	90	110			
WG524986CCB6	CCB	08/10/21 19:31				U	mg/L		-0.3	0.3			

Iron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524648													
WG524648ICV	ICV	08/04/21 15:09	II210803-4	2		1.957	mg/L	98	95	105			
WG524648ICB	ICB	08/04/21 15:15				U	mg/L		-0.18	0.18			
WG524648PQV	PQV	08/04/21 15:18	II210804-2	.15027		.15	mg/L	100	70	130			
WG524648SIC	SIC	08/04/21 15:21	II210707-4	200.17027		188.8	mg/L	94	1	200			
WG524648LFB	LFB	08/04/21 15:27	II210714-2	1.0001		.987	mg/L	99	85	115			
L67355-04AS	AS	08/04/21 15:42	II210714-2	1.0001	U	.985	mg/L	98	85	115			
L67355-04ASD	ASD	08/04/21 15:45	II210714-2	1.0001	U	.998	mg/L	100	85	115	1	20	
WG524648CCV1	CCV	08/04/21 15:58	II210803-5	1		.961	mg/L	96	90	110			
WG524648CCB1	CCB	08/04/21 16:01				U	mg/L		-0.18	0.18			
WG524648CCV2	CCV	08/04/21 16:35	II210803-5	1		.963	mg/L	96	90	110			
WG524648CCB2	CCB	08/04/21 16:38				U	mg/L		-0.18	0.18			
WG524648CCV3	CCV	08/04/21 16:57	II210803-5	1		.957	mg/L	96	90	110			
WG524648CCB3	CCB	08/04/21 17:00				U	mg/L		-0.18	0.18			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524871													
WG524871ICV	ICV	08/08/21 13:06	II210801-1	2		1.94	mg/L	97	95	105			
WG524871ICB	ICB	08/08/21 13:12				U	mg/L		-0.18	0.18			
WG524871PQV	PQV	08/08/21 13:15	II210804-2	.15027		.163	mg/L	108	70	130			
WG524871SIC	SIC	08/08/21 13:18	II210707-5	200.17027		190.2	mg/L	95	1	200			
WG524812LRB	LRB	08/08/21 13:24				U	mg/L		-0.132	0.132			
WG524812LFB	LFB	08/08/21 13:27	II210805-2	1.0001		1.012	mg/L	101	85	115			
WG524871CCV1	CCV	08/08/21 13:55	II210719-1	1		.967	mg/L	97	90	110			
WG524871CCB1	CCB	08/08/21 13:58				U	mg/L		-0.18	0.18			
L67362-01LFM	LFM	08/08/21 14:04	II210805-2	1.0001	U	1.024	mg/L	102	70	130			
L67362-01LFMD	LFMD	08/08/21 14:07	II210805-2	1.0001	U	1.026	mg/L	103	70	130	0	20	
WG524871CCV2	CCV	08/08/21 14:31	II210719-1	1		.985	mg/L	99	90	110			
WG524871CCB2	CCB	08/08/21 14:34				U	mg/L		-0.18	0.18			
WG524871CCV3	CCV	08/08/21 14:56	II210719-1	1		.984	mg/L	98	90	110			
WG524871CCB3	CCB	08/08/21 14:59				U	mg/L		-0.18	0.18			

Lead, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524943													
WG524943ICV	ICV	08/09/21 15:16	MS210727-2	.05		.05291	mg/L	106	90	110			
WG524943ICB	ICB	08/09/21 15:18				U	mg/L		-0.00022	0.00022			
WG524943LFB	LFB	08/09/21 15:20	MS210727-5	.05005		.05324	mg/L	106	85	115			
L67355-01AS	AS	08/09/21 15:36	MS210727-5	.05005	U	.0546	mg/L	109	70	130			
WG524943CCV1	CCV	08/09/21 15:38	MS210806-2	.25025		.2413	mg/L	96	90	110			
WG524943CCB1	CCB	08/09/21 15:40				U	mg/L		-0.0003	0.0003			
L67355-01ASD	ASD	08/09/21 15:44	MS210727-5	.05005	U	.05427	mg/L	108	70	130	1	20	
L67453-02AS	AS	08/09/21 16:00	MS210727-5	.1001	.00034	.11423	mg/L	114	70	130			
WG524943CCV2	CCV	08/09/21 16:02	MS210806-2	.25025		.24518	mg/L	98	90	110			
WG524943CCB2	CCB	08/09/21 16:03				.00029	mg/L		-0.0003	0.0003			
L67453-02ASD	ASD	08/09/21 16:05	MS210727-5	.1001	.00034	.10824	mg/L	108	70	130	5	20	
WG524943CCV3	CCV	08/09/21 16:14	MS210806-2	.25025		.25238	mg/L	101	90	110			
WG524943CCB3	CCB	08/09/21 16:16				U	mg/L		-0.0003	0.0003			

Lead, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524949													
WG524949ICV	ICV	08/09/21 16:30	MS210727-2	.05		.05113	mg/L	102	90	110			
WG524949ICB	ICB	08/09/21 16:32				U	mg/L		-0.0003	0.0003			
WG524791LRB	LRB	08/09/21 16:34				U	mg/L		-0.00022	0.00022			
WG524791LFB	LFB	08/09/21 16:36	MS210727-5	.05005		.04931	mg/L	99	85	115			
L67355-04LFM	LFM	08/09/21 16:44	MS210727-5	.05005	U	.05093	mg/L	102	70	130			
L67355-04LFMD	LFMD	08/09/21 16:46	MS210727-5	.05005	U	.05045	mg/L	101	70	130	1	20	
WG524949CCV1	CCV	08/09/21 16:52	MS210806-2	.25025		.24357	mg/L	97	90	110			
WG524949CCB1	CCB	08/09/21 16:53				U	mg/L		-0.0003	0.0003			
WG524949CCV2	CCV	08/09/21 17:13	MS210806-2	.25025		.24732	mg/L	99	90	110			
WG524949CCB2	CCB	08/09/21 17:15				.0001	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524648													
WG524648ICV	ICV	08/04/21 15:09	II210803-4	100		95.39	mg/L	95	95	105			
WG524648ICB	ICB	08/04/21 15:15				U	mg/L		-0.6	0.6			
WG524648PQV	PQV	08/04/21 15:18	II210804-2	1.0001		1	mg/L	100	70	130			
WG524648SIC	SIC	08/04/21 15:21	II210707-4	201.0201		200.6	mg/L	100	1	200			
WG524648LFB	LFB	08/04/21 15:27	II210714-2	50.00074		47.93	mg/L	96	85	115			
L67355-04AS	AS	08/04/21 15:42	II210714-2	50.00074	37	83.16	mg/L	92	85	115			
L67355-04ASD	ASD	08/04/21 15:45	II210714-2	50.00074	37	83.92	mg/L	94	85	115	1	20	
WG524648CCV1	CCV	08/04/21 15:58	II210803-5	50		45.59	mg/L	91	90	110			
WG524648CCB1	CCB	08/04/21 16:01				U	mg/L		-0.6	0.6			
WG524648CCV2	CCV	08/04/21 16:35	II210803-5	50		45.83	mg/L	92	90	110			
WG524648CCB2	CCB	08/04/21 16:38				U	mg/L		-0.6	0.6			
WG524648CCV3	CCV	08/04/21 16:57	II210803-5	50		45.57	mg/L	91	90	110			
WG524648CCB3	CCB	08/04/21 17:00				U	mg/L		-0.6	0.6			

Manganese, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524648													
WG524648ICV	ICV	08/04/21 15:09	II210803-4	2		1.932	mg/L	97	95	105			
WG524648ICB	ICB	08/04/21 15:15				U	mg/L		-0.03	0.03			
WG524648PQV	PQV	08/04/21 15:18	II210804-2	.05005		.048	mg/L	96	70	130			
WG524648SIC	SIC	08/04/21 15:21	II210707-4	50.10005		46.55	mg/L	93	1	200			
WG524648LFB	LFB	08/04/21 15:27	II210714-2	.5005		.489	mg/L	98	85	115			
L67355-04AS	AS	08/04/21 15:42	II210714-2	.5005	U	.487	mg/L	97	85	115			
L67355-04ASD	ASD	08/04/21 15:45	II210714-2	.5005	U	.493	mg/L	99	85	115	1	20	
WG524648CCV1	CCV	08/04/21 15:58	II210803-5	1		.954	mg/L	95	90	110			
WG524648CCB1	CCB	08/04/21 16:01				U	mg/L		-0.03	0.03			
WG524648CCV2	CCV	08/04/21 16:35	II210803-5	1		.952	mg/L	95	90	110			
WG524648CCB2	CCB	08/04/21 16:38				U	mg/L		-0.03	0.03			
WG524648CCV3	CCV	08/04/21 16:57	II210803-5	1		.947	mg/L	95	90	110			
WG524648CCB3	CCB	08/04/21 17:00				U	mg/L		-0.03	0.03			

Manganese, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524871													
WG524871ICV	ICV	08/08/21 13:06	II210801-1	2		1.905	mg/L	95	95	105			
WG524871ICB	ICB	08/08/21 13:12				U	mg/L		-0.03	0.03			
WG524871PQV	PQV	08/08/21 13:15	II210804-2	.05005		.051	mg/L	102	70	130			
WG524871SIC	SIC	08/08/21 13:18	II210707-5	50.10005		45.56	mg/L	91	1	200			
WG524812LRB	LRB	08/08/21 13:24				U	mg/L		-0.022	0.022			
WG524812LFB	LFB	08/08/21 13:27	II210805-2	.5005		.505	mg/L	101	85	115			
WG524871CCV1	CCV	08/08/21 13:55	II210719-1	1		.966	mg/L	97	90	110			
WG524871CCB1	CCB	08/08/21 13:58				U	mg/L		-0.03	0.03			
L67362-01LFM	LFM	08/08/21 14:04	II210805-2	.5005	U	.511	mg/L	102	70	130			
L67362-01LFMD	LFMD	08/08/21 14:07	II210805-2	.5005	U	.51	mg/L	102	70	130	0	20	
WG524871CCV2	CCV	08/08/21 14:31	II210719-1	1		.953	mg/L	95	90	110			
WG524871CCB2	CCB	08/08/21 14:34				U	mg/L		-0.03	0.03			
WG524871CCV3	CCV	08/08/21 14:56	II210719-1	1		.944	mg/L	94	90	110			
WG524871CCB3	CCB	08/08/21 14:59				U	mg/L		-0.03	0.03			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, dissolved

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524176													
WG524176ICV	ICV	07/29/21 11:33	HG210701-3	.00501		.0051	mg/L	102	90	110			
WG524176ICB	ICB	07/29/21 11:34				U	mg/L		-0.0006	0.0006			
WG524277													
WG524277CCV1	CCV	07/29/21 14:45	HG210701-3	.00501		.00491	mg/L	98	90	110			
WG524277CCB1	CCB	07/29/21 14:46				U	mg/L		-0.0002	0.0002			
WG524277PQV	PQV	07/29/21 14:47	HG210728-2	.001001		.00084	mg/L	84	70	130			
WG524277LRB	LRB	07/29/21 14:48				U	mg/L		-0.00044	0.00044			
WG524277LFB	LFB	07/29/21 14:49	HG210728-3	.002002		.00181	mg/L	90	85	115			
L67275-01LFM	LFM	07/29/21 14:51	HG210728-3	.002002	U	.0018	mg/L	90	85	115			
L67275-01LFMD	LFMD	07/29/21 14:51	HG210728-3	.002002	U	.00184	mg/L	92	85	115	2	20	
WG524277CCV2	CCV	07/29/21 14:56	HG210701-3	.00501		.00491	mg/L	98	90	110			
WG524277CCB2	CCB	07/29/21 14:57				U	mg/L		-0.0002	0.0002			
L67355-02LFM	LFM	07/29/21 15:04	HG210728-3	.002002	U	.00181	mg/L	90	85	115			
L67355-02LFMD	LFMD	07/29/21 15:05	HG210728-3	.002002	U	.00187	mg/L	93	85	115	3	20	
WG524277CCV3	CCV	07/29/21 15:08	HG210701-3	.00501		.00498	mg/L	99	90	110			
WG524277CCB3	CCB	07/29/21 15:08				U	mg/L		-0.0002	0.0002			
WG524277CCV4	CCV	07/29/21 15:16	HG210701-3	.00501		.0049	mg/L	98	90	110			
WG524277CCB4	CCB	07/29/21 15:17				U	mg/L		-0.0002	0.0002			
WG524294													
WG524294CCV1	CCV	07/29/21 15:59	HG210701-3	.00501		.00492	mg/L	98	90	110			
WG524294CCB1	CCB	07/29/21 16:00				U	mg/L		-0.0002	0.0002			
WG524294PQV	PQV	07/29/21 16:01	HG210728-2	.001001		.00085	mg/L	85	70	130			
WG524294LRB	LRB	07/29/21 16:02				U	mg/L		-0.00044	0.00044			
WG524294LFB	LFB	07/29/21 16:03	HG210728-3	.002002		.00182	mg/L	91	85	115			
WG524294CCV2	CCV	07/29/21 16:11	HG210701-3	.00501		.00493	mg/L	98	90	110			
WG524294CCB2	CCB	07/29/21 16:11				U	mg/L		-0.0002	0.0002			
L67334-02LFM	LFM	07/29/21 16:15	HG210728-3	.002002	U	.00183	mg/L	91	85	115			
L67334-02LFMD	LFMD	07/29/21 16:16	HG210728-3	.002002	U	.0019	mg/L	95	85	115	4	20	
WG524294CCV3	CCV	07/29/21 16:22	HG210701-3	.00501		.00495	mg/L	99	90	110			
WG524294CCB3	CCB	07/29/21 16:23				U	mg/L		-0.0002	0.0002			
WG524294CCV4	CCV	07/29/21 16:25	HG210701-3	.00501		.00491	mg/L	98	90	110			
WG524294CCB4	CCB	07/29/21 16:26				U	mg/L		-0.0002	0.0002			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, total

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524176													
WG524176ICV	ICV	07/29/21 11:33	HG210701-3	.00501		.0051	mg/L	102	90	110			
WG524176ICB	ICB	07/29/21 11:34				U	mg/L		-0.0006	0.0006			
WG524178													
WG524178CCV1	CCV	07/29/21 12:14	HG210701-3	.00501		.00496	mg/L	99	90	110			
WG524178CCB1	CCB	07/29/21 12:15				U	mg/L		-0.0002	0.0002			
WG524178PQV	PQV	07/29/21 12:16	HG210728-2	.001001		.00091	mg/L	91	70	130			
WG524178LRB	LRB	07/29/21 12:17				U	mg/L		-0.00044	0.00044			
WG524178LFB	LFB	07/29/21 12:18	HG210728-3	.002002		.00193	mg/L	96	85	115			
WG524178CCV2	CCV	07/29/21 12:26	HG210701-3	.00501		.00496	mg/L	99	90	110			
WG524178CCB2	CCB	07/29/21 12:27				U	mg/L		-0.0002	0.0002			
L67321-09LFM	LFM	07/29/21 12:33	HG210728-3	.002002	U	.00189	mg/L	94	85	115			
L67321-09LFMD	LFMD	07/29/21 12:34	HG210728-3	.002002	U	.00187	mg/L	93	85	115	1	20	
WG524178CCV3	CCV	07/29/21 12:37	HG210701-3	.00501		.00486	mg/L	97	90	110			
WG524178CCB3	CCB	07/29/21 12:38				U	mg/L		-0.0002	0.0002			
WG524178CCV4	CCV	07/29/21 12:45	HG210701-3	.00501		.00488	mg/L	97	90	110			
WG524178CCB4	CCB	07/29/21 12:46				U	mg/L		-0.0002	0.0002			
WG524527													
WG524527ICV	ICV	08/03/21 11:36	HG210701-3	.00501		.00485	mg/L	97	95	105			
WG524527ICB	ICB	08/03/21 11:37				U	mg/L		-0.0002	0.0002			
WG524528													
WG524528CCV1	CCV	08/03/21 12:12	HG210701-3	.00501		.00531	mg/L	106	90	110			
WG524528CCB1	CCB	08/03/21 12:13				U	mg/L		-0.0002	0.0002			
WG524528PQV	PQV	08/03/21 12:14	HG210728-2	.001001		.00085	mg/L	85	70	130			
WG524528LRB	LRB	08/03/21 12:15				U	mg/L		-0.00044	0.00044			
WG524528LFB	LFB	08/03/21 12:16	HG210728-3	.002002		.0017	mg/L	85	85	115			
WG524528CCV2	CCV	08/03/21 12:23	HG210701-3	.00501		.00499	mg/L	100	90	110			
WG524528CCB2	CCB	08/03/21 12:24				U	mg/L		-0.0002	0.0002			
L67355-03LFM	LFM	08/03/21 12:30	HG210728-3	.002002	U	.00175	mg/L	87	85	115			
L67355-03LFMD	LFMD	08/03/21 12:31	HG210728-3	.002002	U	.00184	mg/L	92	85	115	5	20	
WG524528CCV3	CCV	08/03/21 12:35	HG210701-3	.00501		.00497	mg/L	99	90	110			
WG524528CCB3	CCB	08/03/21 12:36				U	mg/L		-0.0002	0.0002			
L67450-08LFM	LFM	08/03/21 12:41	HG210728-3	.002002	U	.00184	mg/L	92	85	115			
L67450-08LFMD	LFMD	08/03/21 12:42	HG210728-3	.002002	U	.00173	mg/L	86	85	115	6	20	
WG524528CCV4	CCV	08/03/21 12:43	HG210701-3	.00501		.00501	mg/L	100	90	110			
WG524528CCB4	CCB	08/03/21 12:44				U	mg/L		-0.0002	0.0002			
WG524622													
WG524622ICV	ICV	08/04/21 13:08	HG210701-3	.00501		.00504	mg/L	101	95	105			
WG524622ICB	ICB	08/04/21 13:08				U	mg/L		-0.0002	0.0002			
WG524627													
WG524627CCV1	CCV	08/04/21 14:22	HG210701-3	.00501		.00533	mg/L	106	90	110			
WG524627CCB1	CCB	08/04/21 14:23				U	mg/L		-0.0002	0.0002			
WG524627PQV	PQV	08/04/21 14:24	HG210728-2	.001001		.00088	mg/L	88	70	130			
WG524627LRB	LRB	08/04/21 14:25				U	mg/L		-0.00044	0.00044			
L67355-06LFM	LFM	08/04/21 14:27	HG210728-3	.002002	U	.0017	mg/L	85	85	115			
L67355-06LFMD	LFMD	08/04/21 14:28	HG210728-3	.002002	U	.00167	mg/L	83	85	115	2	20	MA
WG524627CCV2	CCV	08/04/21 14:33	HG210701-3	.00501		.00499	mg/L	100	90	110			
WG524627CCB2	CCB	08/04/21 14:34				U	mg/L		-0.0002	0.0002			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

WG524627CCV3	CCV	08/04/21 14:39	HG210701-3	.00501	.005	mg/L	100	90	110				
WG524627CCB3	CCB	08/04/21 14:40			U	mg/L		-0.0002	0.0002				
WG524627LFB	LFB	08/04/21 14:42	HG210728-3	.002002	.00172	mg/L	86	85	115				
WG524627CCV4	CCV	08/04/21 14:43	HG210701-3	.00501	.00494	mg/L	99	90	110				
WG524627CCB4	CCB	08/04/21 14:44			U	mg/L		-0.0002	0.0002				

Molybdenum, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524943													
WG524943ICV	ICV	08/09/21 15:16	MS210727-2	.01992		.02001	mg/L	100	90	110			
WG524943ICB	ICB	08/09/21 15:18				U	mg/L		-0.00044	0.00044			
WG524943LFB	LFB	08/09/21 15:20	MS210727-5	.0501		.05018	mg/L	100	85	115			
L67355-01AS	AS	08/09/21 15:36	MS210727-5	.0501	.0502	.09885	mg/L	97	70	130			
WG524943CCV1	CCV	08/09/21 15:38	MS210806-2	.1002		.09581	mg/L	96	90	110			
WG524943CCB1	CCB	08/09/21 15:40				U	mg/L		-0.0006	0.0006			
L67355-01ASD	ASD	08/09/21 15:44	MS210727-5	.0501	.0502	.09716	mg/L	94	70	130	2	20	
L67453-02AS	AS	08/09/21 16:00	MS210727-5	.1002	.0238	.13155	mg/L	108	70	130			
WG524943CCV2	CCV	08/09/21 16:02	MS210806-2	.1002		.09803	mg/L	98	90	110			
WG524943CCB2	CCB	08/09/21 16:03				.00023	mg/L		-0.0006	0.0006			
L67453-02ASD	ASD	08/09/21 16:05	MS210727-5	.1002	.0238	.12854	mg/L	105	70	130	2	20	
WG524943CCV3	CCV	08/09/21 16:14	MS210806-2	.1002		.09986	mg/L	100	90	110			
WG524943CCB3	CCB	08/09/21 16:16				U	mg/L		-0.0006	0.0006			

Molybdenum, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524949													
WG524949ICV	ICV	08/09/21 16:30	MS210727-2	.01992		.01963	mg/L	99	90	110			
WG524949ICB	ICB	08/09/21 16:32				U	mg/L		-0.0006	0.0006			
WG524791LRB	LRB	08/09/21 16:34				U	mg/L		-0.00044	0.00044			
WG524791LFB	LFB	08/09/21 16:36	MS210727-5	.0501		.04801	mg/L	96	85	115			
L67355-04LFM	LFM	08/09/21 16:44	MS210727-5	.0501	.0381	.08837	mg/L	100	70	130			
L67355-04LFMD	LFMD	08/09/21 16:46	MS210727-5	.0501	.0381	.08738	mg/L	98	70	130	1	20	
WG524949CCV1	CCV	08/09/21 16:52	MS210806-2	.1002		.09666	mg/L	96	90	110			
WG524949CCB1	CCB	08/09/21 16:53				U	mg/L		-0.0006	0.0006			
WG524949CCV2	CCV	08/09/21 17:13	MS210806-2	.1002		.09951	mg/L	99	90	110			
WG524949CCB2	CCB	08/09/21 17:15				U	mg/L		-0.0006	0.0006			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Nitrate/Nitrite as N

M353.2 - H2SO4 preserved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525042													
WG525042ICV	ICV	08/10/21 23:32	WI210603-7	2.416		2.334	mg/L	97	90	110			
WG525042ICB	ICB	08/10/21 23:33				U	mg/L		-0.02	0.02			
WG525044													
WG525044CCV1	CCV	08/11/21 0:42	WI210804-1	2		1.996	mg/L	100	90	110			
WG525044CCB1	CCB	08/11/21 0:45				U	mg/L		-0.02	0.02			
WG525044LFB	LFB	08/11/21 0:46	WI210331-13	2		2.044	mg/L	102	90	110			
L67316-01AS	AS	08/11/21 0:49	WI210331-13	2	.021	2.159	mg/L	107	90	110			
L67317-01DUP	DUP	08/11/21 0:51			.031	U	mg/L				200	20	RA
WG525044CCV2	CCV	08/11/21 0:59	WI210804-1	2		1.98	mg/L	99	90	110			
WG525044CCB2	CCB	08/11/21 1:02				U	mg/L		-0.02	0.02			
L67355-07AS	AS	08/11/21 1:08	WI210331-13	2	U	2.087	mg/L	104	90	110			
L67363-01DUP	DUP	08/11/21 1:11			.024	.023	mg/L				4	20	RA
WG525044CCV3	CCV	08/11/21 1:16	WI210804-1	2		1.973	mg/L	99	90	110			
WG525044CCB3	CCB	08/11/21 1:18				U	mg/L		-0.02	0.02			
WG525044CCV4	CCV	08/11/21 1:29	WI210804-1	2		1.963	mg/L	98	90	110			
WG525044CCB4	CCB	08/11/21 1:32				U	mg/L		-0.02	0.02			

Phosphorus, total

M365.1 - Auto Ascorbic Acid (digest)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524406													
WG524406ICV	ICV	07/31/21 19:38	WI210603-3	.65228		.658	mg/L	101	90	110			
WG524406ICB	ICB	07/31/21 19:41				U	mg/L		-0.01	0.01			
WG524180LRB	LRB	07/31/21 19:42				U	mg/L		-0.01	0.01			
WG524180LFB	LFB	07/31/21 19:43	WI210716-2	.5		.465	mg/L	93	90	110			
L67355-01LFM	LFM	07/31/21 19:45	WI210716-2	.5	U	.466	mg/L	93	90	110			
L67355-02DUP	DUP	07/31/21 19:47			U	U	mg/L				0	20	RA
WG524406CCV1	CCV	07/31/21 19:53	WI210603-4	.5		.497	mg/L	99	90	110			
WG524406CCB1	CCB	07/31/21 19:54				U	mg/L		-0.01	0.01			
WG524406CCV2	CCV	07/31/21 20:07	WI210603-4	.5		.499	mg/L	100	90	110			
WG524406CCB2	CCB	07/31/21 20:08				U	mg/L		-0.01	0.01			

Potassium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524648													
WG524648ICV	ICV	08/04/21 15:09	II210803-4	20		19.53	mg/L	98	95	105			
WG524648ICB	ICB	08/04/21 15:15				U	mg/L		-0.6	0.6			
WG524648PQV	PQV	08/04/21 15:18	II210804-2	1.004		1	mg/L	100	70	130			
WG524648SIC	SIC	08/04/21 15:21	II210707-4	1.004		1.03	mg/L	103	80	120			
WG524648LFB	LFB	08/04/21 15:27	II210714-2	99.99574		98.72	mg/L	99	85	115			
L67355-04AS	AS	08/04/21 15:42	II210714-2	99.99574	4	102.3	mg/L	98	85	115			
L67355-04ASD	ASD	08/04/21 15:45	II210714-2	99.99574	4	102	mg/L	98	85	115	0	20	
WG524648CCV1	CCV	08/04/21 15:58	II210803-5	10		9.56	mg/L	96	90	110			
WG524648CCB1	CCB	08/04/21 16:01				U	mg/L		-0.6	0.6			
WG524648CCV2	CCV	08/04/21 16:35	II210803-5	10		9.55	mg/L	96	90	110			
WG524648CCB2	CCB	08/04/21 16:38				U	mg/L		-0.6	0.6			
WG524648CCV3	CCV	08/04/21 16:57	II210803-5	10		9.48	mg/L	95	90	110			
WG524648CCB3	CCB	08/04/21 17:00				U	mg/L		-0.6	0.6			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524113													
WG524113PBW	PBW	07/27/21 13:45				U	mg/L		-20	20			
WG524113LCSW	LCSW	07/27/21 13:46	PCN63561	1000		998	mg/L	100	80	120			
L67356-05DUP	DUP	07/27/21 14:08			234	230	mg/L				2	10	
WG524189													
WG524189PBW	PBW	07/28/21 12:10				U	mg/L		-20	20			
WG524189LCSW	LCSW	07/28/21 12:11	PCN63564	1000		986	mg/L	99	80	120			
WG524189PQV	PQV	07/28/21 12:13	WC210427-2	40		46	mg/L	115	50	150			
L67357-06DUP	DUP	07/28/21 12:49			68	66	mg/L				3	10	RA

Residue, Non-Filterable (TSS) @105C SM2540D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524043													
WG524043PBW	PBW	07/26/21 18:20				U	mg/L		-5	5			
WG524043LCSW	LCSW	07/26/21 18:22	PCN63561	100		116	mg/L	116	80	120			
L67374-06DUP	DUP	07/26/21 19:09			U	6	mg/L				200	10	RA
WG524118													
WG524118PBW	PBW	07/27/21 14:45				U	mg/L		-5	5			
WG524118LCSW	LCSW	07/27/21 14:47	PCN63564	100		92	mg/L	92	80	120			
L67357-04DUP	DUP	07/27/21 15:11			U	8	mg/L				200	10	RA

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524943													
WG524943ICV	ICV	08/09/21 15:16	MS210727-2	.05		.05092	mg/L	102	90	110			
WG524943ICB	ICB	08/09/21 15:18				U	mg/L		-0.00022	0.00022			
WG524943LFB	LFB	08/09/21 15:20	MS210727-5	.05		.05044	mg/L	101	85	115			
L67355-01AS	AS	08/09/21 15:36	MS210727-5	.05	.00105	.05538	mg/L	109	70	130			
WG524943CCV1	CCV	08/09/21 15:38	MS210806-2	.25		.2345	mg/L	94	90	110			
WG524943CCB1	CCB	08/09/21 15:40				.00023	mg/L		-0.0003	0.0003			
L67355-01ASD	ASD	08/09/21 15:44	MS210727-5	.05	.00105	.05367	mg/L	105	70	130	3	20	
L67453-02AS	AS	08/09/21 16:00	MS210727-5	.1	.00407	.10228	mg/L	98	70	130			
WG524943CCV2	CCV	08/09/21 16:02	MS210806-2	.25		.24734	mg/L	99	90	110			
WG524943CCB2	CCB	08/09/21 16:03				.00014	mg/L		-0.0003	0.0003			
L67453-02ASD	ASD	08/09/21 16:05	MS210727-5	.1	.00407	.09689	mg/L	93	70	130	5	20	
WG524943CCV3	CCV	08/09/21 16:14	MS210806-2	.25		.24236	mg/L	97	90	110			
WG524943CCB3	CCB	08/09/21 16:16				.00023	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Selenium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524949													
WG524949ICV	ICV	08/09/21 16:30	MS210727-2	.05		.0475	mg/L	95	90	110			
WG524949ICB	ICB	08/09/21 16:32				.00015	mg/L		-0.0003	0.0003			
WG524791LRB	LRB	08/09/21 16:34				U	mg/L		-0.00022	0.00022			
WG524791LFB	LFB	08/09/21 16:36	MS210727-5	.05		.04758	mg/L	95	85	115			
L67355-04LFM	LFM	08/09/21 16:44	MS210727-5	.05	.00051	.04839	mg/L	96	70	130			
L67355-04LFMD	LFMD	08/09/21 16:46	MS210727-5	.05	.00051	.04799	mg/L	95	70	130	1	20	
WG524949CCV1	CCV	08/09/21 16:52	MS210806-2	.25		.24548	mg/L	98	90	110			
WG524949CCB1	CCB	08/09/21 16:53				.00024	mg/L		-0.0003	0.0003			
WG524949CCV2	CCV	08/09/21 17:13	MS210806-2	.25		.24209	mg/L	97	90	110			
WG524949CCB2	CCB	08/09/21 17:15				.00024	mg/L		-0.0003	0.0003			

Silver, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524943													
WG524943ICV	ICV	08/09/21 15:16	MS210727-2	.02		.0205	mg/L	103	90	110			
WG524943ICB	ICB	08/09/21 15:18				U	mg/L		-0.00022	0.00022			
WG524943LFB	LFB	08/09/21 15:20	MS210727-5	.01002		.01036	mg/L	103	85	115			
L67355-01AS	AS	08/09/21 15:36	MS210727-5	.01002	U	.00981	mg/L	98	70	130			
WG524943CCV1	CCV	08/09/21 15:38	MS210806-2	.02505		.02462	mg/L	98	90	110			
WG524943CCB1	CCB	08/09/21 15:40				U	mg/L		-0.0003	0.0003			
L67355-01ASD	ASD	08/09/21 15:44	MS210727-5	.01002	U	.00967	mg/L	97	70	130	1	20	
L67453-02AS	AS	08/09/21 16:00	MS210727-5	.02004	U	.01838	mg/L	92	70	130			
WG524943CCV2	CCV	08/09/21 16:02	MS210806-2	.02505		.02516	mg/L	100	90	110			
WG524943CCB2	CCB	08/09/21 16:03				U	mg/L		-0.0003	0.0003			
L67453-02ASD	ASD	08/09/21 16:05	MS210727-5	.02004	U	.0184	mg/L	92	70	130	0	20	
WG524943CCV3	CCV	08/09/21 16:14	MS210806-2	.02505		.02567	mg/L	102	90	110			
WG524943CCB3	CCB	08/09/21 16:16				U	mg/L		-0.0003	0.0003			

Silver, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524949													
WG524949ICV	ICV	08/09/21 16:30	MS210727-2	.02		.01976	mg/L	99	90	110			
WG524949ICB	ICB	08/09/21 16:32				U	mg/L		-0.0003	0.0003			
WG524791LRB	LRB	08/09/21 16:34				U	mg/L		-0.00022	0.00022			
WG524791LFB	LFB	08/09/21 16:36	MS210727-5	.01002		.01002	mg/L	100	85	115			
L67355-04LFM	LFM	08/09/21 16:44	MS210727-5	.01002	U	.00946	mg/L	94	70	130			
L67355-04LFMD	LFMD	08/09/21 16:46	MS210727-5	.01002	U	.00946	mg/L	94	70	130	0	20	
WG524949CCV1	CCV	08/09/21 16:52	MS210806-2	.02505		.02476	mg/L	99	90	110			
WG524949CCB1	CCB	08/09/21 16:53				U	mg/L		-0.0003	0.0003			
WG524949CCV2	CCV	08/09/21 17:13	MS210806-2	.02505		.02543	mg/L	102	90	110			
WG524949CCB2	CCB	08/09/21 17:15				U	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sodium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524648													
WG524648ICV	ICV	08/04/21 15:09	II210803-4	100		99.12	mg/L	99	95	105			
WG524648ICB	ICB	08/04/21 15:15				U	mg/L		-0.6	0.6			
WG524648PQV	PQV	08/04/21 15:18	II210804-2	1.0053		.96	mg/L	95	70	130			
WG524648SIC	SIC	08/04/21 15:21	II210707-4	1.0053		1.03	mg/L	102	80	120			
WG524648LFB	LFB	08/04/21 15:27	II210714-2	100.0109		99.38	mg/L	99	85	115			
L67355-04AS	AS	08/04/21 15:42	II210714-2	100.0109	20.8	119.4	mg/L	99	85	115			
L67355-04ASD	ASD	08/04/21 15:45	II210714-2	100.0109	20.8	119.2	mg/L	98	85	115	0	20	
WG524648CCV1	CCV	08/04/21 15:58	II210803-5	50		48.83	mg/L	98	90	110			
WG524648CCB1	CCB	08/04/21 16:01				U	mg/L		-0.6	0.6			
WG524648CCV2	CCV	08/04/21 16:35	II210803-5	50		48.8	mg/L	98	90	110			
WG524648CCB2	CCB	08/04/21 16:38				U	mg/L		-0.6	0.6			
WG524648CCV3	CCV	08/04/21 16:57	II210803-5	50		48.62	mg/L	97	90	110			
WG524648CCB3	CCB	08/04/21 17:00				U	mg/L		-0.6	0.6			

Sulfate

D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525329													
WG525329ICB	ICB	08/16/21 9:23				U	mg/L		-3	3			
WG525329ICV	ICV	08/16/21 9:23	WI210802-8	20.46		19.3	mg/L	94	90	110			
WG525329CCV1	CCV	08/16/21 10:37	WI210802-9	25		25.5	mg/L	102	90	110			
WG525329CCB1	CCB	08/16/21 10:37				U	mg/L		-3	3			
WG525329LFB	LFB	08/16/21 10:37	WI210105-3	10		10	mg/L	100	90	110			
WG525329CCV2	CCV	08/16/21 10:39	WI210802-9	25		24.6	mg/L	98	90	110			
WG525329CCB2	CCB	08/16/21 10:39				U	mg/L		-3	3			
WG525329CCV3	CCV	08/16/21 10:41	WI210802-9	25		24	mg/L	96	90	110			
WG525329CCB3	CCB	08/16/21 10:41				U	mg/L		-3	3			
WG525329CCV4	CCV	08/16/21 11:07	WI210802-9	25		24.6	mg/L	98	90	110			
WG525329CCB4	CCB	08/16/21 11:07				U	mg/L		-3	3			
WG525329CCV5	CCV	08/16/21 11:09	WI210802-9	25		25.2	mg/L	101	90	110			
WG525329CCB5	CCB	08/16/21 11:09				U	mg/L		-3	3			
WG525329CCV6	CCV	08/16/21 11:13	WI210802-9	25		24.8	mg/L	99	90	110			
WG525329CCB6	CCB	08/16/21 11:13				U	mg/L		-3	3			
WG525329CCV7	CCV	08/16/21 11:15	WI210802-9	25		25.2	mg/L	101	90	110			
WG525329CCB7	CCB	08/16/21 11:15				U	mg/L		-3	3			
WG525329CCV8	CCV	08/16/21 11:20	WI210802-9	25		24.5	mg/L	98	90	110			
WG525329CCB8	CCB	08/16/21 11:20				U	mg/L		-3	3			
WG525329CCV9	CCV	08/16/21 11:22	WI210802-9	25		24.2	mg/L	97	90	110			
WG525329CCB9	CCB	08/16/21 11:22				1.2	mg/L		-3	3			
L67363-01DUP	DUP	08/16/21 11:27			2570	2533.5	mg/L				1	20	
L67363-02AS	AS	08/16/21 11:27	SO4TURB	10	3020	2795.3	mg/L	-2247	90	110			M3
WG525329CCV10	CCV	08/16/21 11:28	WI210802-9	25		24	mg/L	96	90	110			
WG525329CCB10	CCB	08/16/21 11:28				U	mg/L		-3	3			

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ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Thallium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524943													
WG524943ICV	ICV	08/09/21 15:16	MS210727-2	.05		.0517	mg/L	103	90	110			
WG524943ICB	ICB	08/09/21 15:18				U	mg/L		-0.00022	0.00022			
WG524943LFB	LFB	08/09/21 15:20	MS210727-5	.05		.05134	mg/L	103	85	115			
L67355-01AS	AS	08/09/21 15:36	MS210727-5	.05	.00015	.05363	mg/L	107	70	130			
WG524943CCV1	CCV	08/09/21 15:38	MS210806-2	.1		.09611	mg/L	96	90	110			
WG524943CCB1	CCB	08/09/21 15:40				U	mg/L		-0.0003	0.0003			
L67355-01ASD	ASD	08/09/21 15:44	MS210727-5	.05	.00015	.05125	mg/L	102	70	130	5	20	
L67453-02AS	AS	08/09/21 16:00	MS210727-5	.1	U	.10795	mg/L	108	70	130			
WG524943CCV2	CCV	08/09/21 16:02	MS210806-2	.1		.09871	mg/L	99	90	110			
WG524943CCB2	CCB	08/09/21 16:03				.00014	mg/L		-0.0003	0.0003			
L67453-02ASD	ASD	08/09/21 16:05	MS210727-5	.1	U	.10135	mg/L	101	70	130	6	20	
WG524943CCV3	CCV	08/09/21 16:14	MS210806-2	.1		.10155	mg/L	102	90	110			
WG524943CCB3	CCB	08/09/21 16:16				U	mg/L		-0.0003	0.0003			

Thallium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524949													
WG524949ICV	ICV	08/09/21 16:30	MS210727-2	.05		.05049	mg/L	101	90	110			
WG524949ICB	ICB	08/09/21 16:32				U	mg/L		-0.0003	0.0003			
WG524949LRB	LRB	08/09/21 16:34				U	mg/L		-0.00022	0.00022			
WG524949LFB	LFB	08/09/21 16:36	MS210727-5	.05		.04717	mg/L	94	85	115			
L67355-04LFM	LFM	08/09/21 16:44	MS210727-5	.05	U	.04882	mg/L	98	70	130			
L67355-04LFMD	LFMD	08/09/21 16:46	MS210727-5	.05	U	.04843	mg/L	97	70	130	1	20	
WG524949CCV1	CCV	08/09/21 16:52	MS210806-2	.1		.09659	mg/L	97	90	110			
WG524949CCB1	CCB	08/09/21 16:53				U	mg/L		-0.0003	0.0003			
WG524949CCV2	CCV	08/09/21 17:13	MS210806-2	.1		.09762	mg/L	98	90	110			
WG524949CCB2	CCB	08/09/21 17:15				U	mg/L		-0.0003	0.0003			

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ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Uranium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524943													
WG524943ICV	ICV	08/09/21 15:16	MS210727-2	.05		.05111	mg/L	102	90	110			
WG524943ICB	ICB	08/09/21 15:18				U	mg/L		-0.00022	0.00022			
WG524943LFB	LFB	08/09/21 15:20	MS210727-5	.05		.05083	mg/L	102	85	115			
L67355-01AS	AS	08/09/21 15:36	MS210727-5	.05	1.39	1.41499	mg/L	50	70	130			M3
WG524943CCV1	CCV	08/09/21 15:38	MS210806-2	.1		.09501	mg/L	95	90	110			
WG524943CCB1	CCB	08/09/21 15:40				.00012	mg/L		-0.0003	0.0003			
L67355-01ASD	ASD	08/09/21 15:44	MS210727-5	.05	1.39	1.39907	mg/L	18	70	130	1	20	M3
L67453-02AS	AS	08/09/21 16:00	MS210727-5	.1	.0165	.1289	mg/L	112	70	130			
WG524943CCV2	CCV	08/09/21 16:02	MS210806-2	.1		.10067	mg/L	101	90	110			
WG524943CCB2	CCB	08/09/21 16:03				.00033	mg/L		-0.0003	0.0003			BB
L67453-02ASD	ASD	08/09/21 16:05	MS210727-5	.1	.0165	.12341	mg/L	107	70	130	4	20	
WG524943CCV3	CCV	08/09/21 16:14	MS210806-2	.1		.09964	mg/L	100	90	110			
WG524943CCB3	CCB	08/09/21 16:16				U	mg/L		-0.0003	0.0003			
WG524991													
WG524991ICV	ICV	08/10/21 12:45	MS210727-2	.05		.05116	mg/L	102	90	110			
WG524991ICB	ICB	08/10/21 12:47				U	mg/L		-0.00022	0.00022			
WG524991LFB	LFB	08/10/21 12:48	MS210727-5	.05		.04703	mg/L	94	85	115			
WG524991CCV1	CCV	08/10/21 13:03	MS210806-2	.1		.10064	mg/L	101	90	110			
WG524991CCB1	CCB	08/10/21 13:05				U	mg/L		-0.0003	0.0003			
WG524991CCV2	CCV	08/10/21 13:25	MS210806-2	.1		.09904	mg/L	99	90	110			
WG524991CCB2	CCB	08/10/21 13:27				U	mg/L		-0.0003	0.0003			
WG524991CCV3	CCV	08/10/21 13:30	MS210806-2	.1		.10036	mg/L	100	90	110			
WG524991CCB3	CCB	08/10/21 13:32				U	mg/L		-0.0003	0.0003			
L67452-01AS	AS	08/10/21 13:36	MS210727-5	.5	U	.4735	mg/L	95	70	130			
L67452-01ASD	ASD	08/10/21 13:38	MS210727-5	.5	U	.47761	mg/L	96	70	130	1	20	
WG524991CCV4	CCV	08/10/21 13:45	MS210806-2	.1		.10084	mg/L	101	90	110			
WG524991CCB4	CCB	08/10/21 13:47				U	mg/L		-0.0003	0.0003			

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ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Uranium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524949													
WG524949ICV	ICV	08/09/21 16:30	MS210727-2	.05		.04893	mg/L	98	90	110			
WG524949ICB	ICB	08/09/21 16:32				U	mg/L		-0.0003	0.0003			
WG524791LRB	LRB	08/09/21 16:34				U	mg/L		-0.00022	0.00022			
WG524791LFB	LFB	08/09/21 16:36	MS210727-5	.05		.04739	mg/L	95	85	115			
L67355-04LFM	LFM	08/09/21 16:44	MS210727-5	.05	.928	.97879	mg/L	102	70	130			
L67355-04LFMD	LFMD	08/09/21 16:46	MS210727-5	.05	.928	.96565	mg/L	75	70	130	1	20	
WG524949CCV1	CCV	08/09/21 16:52	MS210806-2	.1		.09643	mg/L	96	90	110			
WG524949CCB1	CCB	08/09/21 16:53				U	mg/L		-0.0003	0.0003			
WG524949CCV2	CCV	08/09/21 17:13	MS210806-2	.1		.09668	mg/L	97	90	110			
WG524949CCB2	CCB	08/09/21 17:15				U	mg/L		-0.0003	0.0003			

WG525031

WG525031ICV	ICV	08/10/21 17:33	MS210727-2	.05		.0502	mg/L	100	90	110			
WG525031ICB	ICB	08/10/21 17:35				U	mg/L		-0.0003	0.0003			
WG524791LRB	LRB	08/10/21 17:48				U	mg/L		-0.00022	0.00022			
WG524791LFB	LFB	08/10/21 17:50	MS210727-5	.05		.04577	mg/L	92	85	115			
WG525031CCV1	CCV	08/10/21 17:52	MS210806-2	.1		.10181	mg/L	102	90	110			
WG525031CCB1	CCB	08/10/21 17:54				U	mg/L		-0.0003	0.0003			
L67355-04LFM	LFM	08/10/21 17:57	MS210727-5	.05	.872	.91101	mg/L	78	70	130			
L67355-04LFMD	LFMD	08/10/21 17:59	MS210727-5	.05	.872	.91206	mg/L	80	70	130	0	20	
WG525031CCV2	CCV	08/10/21 18:03	MS210806-2	.1		.10267	mg/L	103	90	110			
WG525031CCB2	CCB	08/10/21 18:05				.00011	mg/L		-0.0003	0.0003			

Zinc, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524648													
WG524648ICV	ICV	08/04/21 15:09	II210803-4	2		1.962	mg/L	98	95	105			
WG524648ICB	ICB	08/04/21 15:15				U	mg/L		-0.06	0.06			
WG524648PQV	PQV	08/04/21 15:18	II210804-2	.05015		.047	mg/L	94	70	130			
WG524648SIC	SIC	08/04/21 15:21	II210707-4	.1003		.098	mg/L	98	80	120			
WG524648LFB	LFB	08/04/21 15:27	II210714-2	.50045		.513	mg/L	103	85	115			
L67355-04AS	AS	08/04/21 15:42	II210714-2	.50045	U	.526	mg/L	105	85	115			
L67355-04ASD	ASD	08/04/21 15:45	II210714-2	.50045	U	.515	mg/L	103	85	115	2	20	
WG524648CCV1	CCV	08/04/21 15:58	II210803-5	1		.942	mg/L	94	90	110			
WG524648CCB1	CCB	08/04/21 16:01				U	mg/L		-0.06	0.06			
WG524648CCV2	CCV	08/04/21 16:35	II210803-5	1		.949	mg/L	95	90	110			
WG524648CCB2	CCB	08/04/21 16:38				U	mg/L		-0.06	0.06			
WG524648CCV3	CCV	08/04/21 16:57	II210803-5	1		.938	mg/L	94	90	110			
WG524648CCB3	CCB	08/04/21 17:00				U	mg/L		-0.06	0.06			

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ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524871													
WG524871ICV	ICV	08/08/21 13:06	II210801-1	2		1.906	mg/L	95	95	105			
WG524871ICB	ICB	08/08/21 13:12				U	mg/L		-0.06	0.06			
WG524871PQV	PQV	08/08/21 13:15	II210804-2	.05015		.053	mg/L	106	70	130			
WG524871SIC	SIC	08/08/21 13:18	II210707-5	.1003		.108	mg/L	108	80	120			
WG524812LRB	LRB	08/08/21 13:24				U	mg/L		-0.044	0.044			
WG524812LFB	LFB	08/08/21 13:27	II210805-2	.50045		.512	mg/L	102	85	115			
WG524871CCV1	CCV	08/08/21 13:55	II210719-1	1		.94	mg/L	94	90	110			
WG524871CCB1	CCB	08/08/21 13:58				U	mg/L		-0.06	0.06			
L67362-01LFM	LFM	08/08/21 14:04	II210805-2	.50045	U	.515	mg/L	103	70	130			
L67362-01LFMD	LFMD	08/08/21 14:07	II210805-2	.50045	U	.523	mg/L	105	70	130	2	20	
WG524871CCV2	CCV	08/08/21 14:31	II210719-1	1		.949	mg/L	95	90	110			
WG524871CCB2	CCB	08/08/21 14:34				U	mg/L		-0.06	0.06			
WG524871CCV3	CCV	08/08/21 14:56	II210719-1	1		.948	mg/L	95	90	110			
WG524871CCB3	CCB	08/08/21 14:59				U	mg/L		-0.06	0.06			

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ACZ Project ID: **L67355**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67355-01	WG525283	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524676	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG525044	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524406	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524043	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG525329	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524943	Uranium, dissolved	M200.8 ICP-MS	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L67355-02	WG525283	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524676	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	HC	Initial analysis within holding time. Reanalysis was past holding time, which was required due to a QC failure during the initial analysis.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG525044	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524406	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524118	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG525329	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524943	Uranium, dissolved	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
			M200.8 ICP-MS	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

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ACZ Project ID: **L67355**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67355-03	WG525283	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524573	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG525044	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524406	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524118	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG525329	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524943	Uranium, dissolved	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.
			M200.8 ICP-MS	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L67355-04	WG525283	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524573	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG525044	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524406	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524118	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG525329	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524943	Uranium, dissolved	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.

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ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67355-05	WG525283	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524573	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG525044	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524406	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524118	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG525329	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524943	Uranium, dissolved	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.

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ACZ Project ID: **L67355**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67355-06	WG524234	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG525283	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	Q6	Sample was received above recommended temperature.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524573	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	Q6	Sample was received above recommended temperature.
			SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524986	Fluoride	SM4500F-C	Q6	Sample was received above recommended temperature.
	WG524234	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG524627	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG525044	Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	Q6	Sample was received above recommended temperature.
			M353.2 - H ₂ SO ₄ preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524406	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	Q6	Sample was received above recommended temperature.
			M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524189	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG524118	Residue, Non-Filterable (TSS) @105C	SM2540D	Q6	Sample was received above recommended temperature.
			SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG525329	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
			D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG524234	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
			SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524943	Uranium, dissolved	M200.8 ICP-MS	BB	Target analyte detected in calibration blank at or above acceptance limit. Sample value was > 10X the concentration in the calibration blank.

Ensero SolutionsACZ Project ID: **L67355**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67355-07	WG525283	Chloride	SM4500CI-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			SM4500CI-E	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524573	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524627	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG525044	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524406	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524118	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG525329	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524234	Total Alkalinity	SM2320B - Titration	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SUMPS

Locator:

ACZ Sample ID: **L67355-01**

Date Sampled: 07/20/21 9:40

Date Received: 07/23/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 16:15		4.5			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:28		910	38	14	pCi/L	*	ess
Gross Beta	08/04/21 0:28		330	12	8.5	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/18/21 0:17		5.7	0.33	0.1	pCi/L	*	djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/18/21 0:15		4.5	0.26	0.06	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/11/21 16:58		1.1	0.76	1.9	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-07

Locator:

ACZ Sample ID: **L67355-02**

Date Sampled: 07/20/21 10:40

Date Received: 07/23/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 16:15		0.78			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:30		570	29	9.6	pCi/L	*	ess
Gross Beta	08/04/21 0:30		220	9.8	6	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/18/21 0:20		0.78	0.16	0.13	pCi/L	*	djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/18/21 0:18		0.78	0.12	0.09	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/11/21 16:58		2	0.97	2.4	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-06

Locator:

ACZ Sample ID: **L67355-03**

Date Sampled: 07/21/21 9:58

Date Received: 07/23/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 16:15		0.70			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:31		820	34	7.7	pCi/L	*	ess
Gross Beta	08/04/21 0:31		260	10	9.4	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/18/21 0:23		0.76	0.11	0.06	pCi/L	*	djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/18/21 0:21		0.7	0.12	0.33	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/11/21 16:58		-0.11	0.87	2.2	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-19

Locator:

ACZ Sample ID: **L67355-04**

Date Sampled: 07/21/21 11:04

Date Received: 07/23/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 16:15		1.4			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:34		520	26	7	pCi/L	*	ess
Gross Beta	08/04/21 0:34		180	8.4	9.4	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/18/21 0:25		1.8	0.2	0.11	pCi/L	*	djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/18/21 0:24		1.4	0.16	0.09	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/11/21 16:58		0.81	0.83	2	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-0

Locator:

ACZ Sample ID: **L67355-05**

Date Sampled: 07/21/21 13:19

Date Received: 07/23/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 16:15		0.23			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/04/21 0:36		170	15	8.6	pCi/L	*	ess
Gross Beta	08/04/21 0:36		71	5.6	6.8	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/18/21 0:28		0.14	0.08	0.12	pCi/L	*	djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/18/21 0:27		0.23	0.11	0.16	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/11/21 16:58		0.3	0.89	2.3	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-00

Locator:

ACZ Sample ID: **L67355-06**

Date Sampled: 07/21/21 14:30

Date Received: 07/23/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 16:15		0			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/10/21 0:18		3.1	2.1	5.9	pCi/L	*	ess
Gross Beta	08/10/21 0:18		6.2	3.2	9	pCi/L		ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/18/21 0:31		0.23	0.08	0.17	pCi/L	*	djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/18/21 0:30		0.1	0.07	0.26	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/11/21 16:58		-0.23	0.92	2	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: RAW FEED

Locator:

ACZ Sample ID: **L67355-07**

Date Sampled: 07/21/21 15:15

Date Received: 07/23/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/18/21 16:15		150			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/10/21 0:21		12000	270	56	pCi/L		ess
Gross Beta	08/10/21 0:21		6000	100	34	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/18/21 0:34		150	2.7	0.24	pCi/L	*	djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/18/21 0:33		150	2.7	0.68	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/11/21 16:58		3.2	0.74	1.5	pCi/L	*	cer

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.
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Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alpha		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524240																
WG524240PBW	PBW	08/04/21						2.2	1.5	12			24			
WG524240LCSWA	LCSW	08/04/21	PCN62436	100				120	9.1	6	120	67	144			
L67041-06DUP	DUP-RER	08/04/21			0.44	1.2	6.1	3.3	2	5.5				1.23	2	
L67041-06DUP	DUP-RPD	08/04/21			0.44	1.2	6.1	3.3	2	5.5				153	20	RG
L67260-01MSA	MS	08/04/21	PCN62436	100	16	4.2	16	120	11	17	104	67	144			
L67355-05DUP	DUP-RPD	08/04/21			170	15	8.6	230	17	8.1				30	20	RM
WG524857																
WG524857PBW	PBW	08/10/21						.01	0.85	4.3			8.6			
WG524857LCSWA	LCSW	08/10/21	PCN62436	100				120	9.4	4.9	120	67	144			
L67275-01DUP	DUP-RER	08/10/21			3.4	2.6	12	6.2	3.2	21				0.68	2	
L67275-01DUP	DUP-RPD	08/10/21			3.4	2.6	12	6.2	3.2	21				58	20	RG
L67355-06 MSA	MS	08/10/21	PCN62436	100	3.1	2.1	5.9	110	11	6.8	107	67	144			
L67391-01DUP	DUP-RPD	08/10/21			7.5	3	6	9.1	3.4	9.4				19	20	

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Beta

M900.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524240																
WG524240PBW	PBW	08/04/21						1.1	2.3	18			36			
WG524240LCSWB	LCSW	08/04/21	RC210621-11	49.9				56	4.9	5.1	112	82	122			
L67041-06DUP	DUP-RER	08/04/21			2	2.5	6.6	2.7	2.8	8.1				0.19	2	
L67041-06DUP	DUP-RPD	08/04/21			2	2.5	6.6	2.7	2.8	8.1				30	20	RG
L67355-03MSB	MS	08/04/21	RC210621-11	49.9	260	10	9.4	300	11	12	80	82	122			M2
L67355-05DUP	DUP-RPD	08/04/21			71	5.6	6.8	78	5.9	8.5				9	20	
WG524857																
WG524857PBW	PBW	08/10/21						-1.5	2.6	8			16			
WG524857LCSWB	LCSW	08/10/21	RC210621-11	49.9				54	5	9	108	82	122			
L67275-01DUP	DUP-RPD	08/10/21			9.5	3.1	7.1	11	3.2	20				15	20	
L67391-01MSB	MS	08/10/21	RC210621-11	49.9	5.3	3.2	9	59	5.2	5.2	108	82	122			
L67391-01DUP	DUP-RER	08/10/21			5.3	3.2	9	2.5	2.6	6.9				0.68	2	
L67391-01DUP	DUP-RPD	08/10/21			5.3	3.2	9	2.5	2.6	6.9				72	20	RG

Radium 226, dissolved

M903.1

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG525033																
WG525033PBW	PBW	08/18/21						-.02	0.12	0.13			0.26			
WG525033LCSWB	LCSW	08/18/21	PCN62879	20				19	0.64	0.14	95	43	148			
L67238-01DUP	DUP-RER	08/18/21			0.39	0.12	0.1	.89	0.19	0.18				2.22	2	N1
L67238-01DUP	DUP-RPD	08/18/21			0.39	0.12	0.1	.89	0.19	0.18				78	20	N1
L67238-02MS	MS	08/18/21	PCN62879	40	1.3	0.19	0.17	42	1.3	0.37	102	43	148			
L67275-02DUP	DUP-RPD	08/18/21			0.08	0.06	0.02	.26	0.21	0.26				106	20	RG
L67275-02DUP	DUP-RER	08/18/21			0.08	0.06	0.02	.26	0.21	0.26				0.82	2	

Ensero Solutions

ACZ Project ID: **L67355**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Radium 228, total

M904.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524581																
L66627-01DUP	DUP-RER	08/11/21			0.37	1.1	2.8	1.5	1.8	4.2				0.54	2	
WG524581LCSW	LCSW	08/11/21	PCN63356	9.57				9.5	1.3	0.99	99	47	123			
WG524581PBW	PBW	08/11/21						.22	0.36	0.37			0.74			
L66627-01DUP	DUP-RPD	08/11/21			0.37	1.1	2.8	1.5	1.8	4.2				121	20	RG
L67355-07DUP	DUP-RPD	08/11/21			3.2	0.74	1.5	11	1.1	1.8				110	20	RM
L67355-06MS	MS	08/11/21	PCN63356	9.57	-0.23	0.92	2	8.6	1.4	2.6	92	47	123			

Ensero Solutions

ACZ Project ID: **L67355**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67355-01	WG524240	Gross Alpha	M900.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG525033	Radium 226, dissolved	M903.1	N1	See Case Narrative.
		Radium 226, total	M903.1	N1	See Case Narrative.
	WG524581	Radium 228, total	M904.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
L67355-02	WG524240	Gross Alpha	M900.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG525033	Radium 226, dissolved	M903.1	N1	See Case Narrative.
		Radium 226, total	M903.1	N1	See Case Narrative.
	WG524581	Radium 228, total	M904.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
L67355-03	WG524240	Gross Alpha	M900.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG525033	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524581	Radium 228, total	M904.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
L67355-04	WG524240	Gross Alpha	M900.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG525033	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524581	Radium 228, total	M904.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.

Ensero Solutions

ACZ Project ID: **L67355**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67355-05	WG524240	Gross Alpha	M900.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
		Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG525033	Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524581	Radium 228, total	M904.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
L67355-06	WG524857	Gross Alpha	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, dissolved	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 228, total	M904.0	Q5	Sample received with inadequate chemical preservation. Additional preservation performed by the laboratory.
			M904.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.
L67355-07	WG524857	Gross Beta	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, dissolved	M903.1	D1	Sample required dilution due to matrix.
			M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Radium 226, total	M903.1	D1	Sample required dilution due to matrix.
			M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524581	Radium 228, total	M904.0	Q5	Sample received with inadequate chemical preservation. Additional preservation performed by the laboratory.
			M904.0	RM	For a water matrix, the duplicate precision assessment (RPD or RER) exceeded the control limit. High sediment, turbidity, or presence of an immiscible liquid attributed to non-homogeneity of the sample.

Ensero Solutions

ACZ Project ID: **L67355**

No certification qualifiers associated with this analysis

Ensero Solutions
3100-PO205

ACZ Project ID: L67355
Date Received: 07/23/2021 10:47
Received By:
Date Printed: 7/26/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	☐	☐	☒
2) Is the Chain of Custody form or other directive shipping papers present?	☒	☐	☐
3) Does this project require special handling procedures such as CLP protocol?	☐	☒	☐
4) Are any samples NRC licensable material?	☐	☐	☒
5) If samples are received past hold time, proceed with requested short hold time analyses?	☒	☐	☐
6) Is the Chain of Custody form complete and accurate?	☒	☐	☐
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	☐	☒	☐

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	☒	☐	☐
9) Are all labels on containers and are they intact and legible?	☒	☐	☐
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	☒	☐	☐
11) For preserved bottle types, was the pH checked and within limits? ¹	☐	☒	☐

L67355-07 Container B2432140 (RED CUBE): Added 10 mls nitric acid to the sub-sample to adjust the pH to the appropriate range.

L67355-07 Container B2432141 (GREEN CUBE): Added 10 mls nitric acid to the sub-sample to adjust the pH to the appropriate range.

12) Is there sufficient sample volume to perform all requested work?	☒	☐	☐
13) Is the custody seal intact on all containers?	☐	☐	☒
14) Are samples that require zero headspace acceptable?	☐	☐	☒
15) Are all sample containers appropriate for analytical requirements?	☒	☐	☐
16) Is there an Hg-1631 trip blank present?	☐	☐	☒
17) Is there a VOA trip blank present?	☐	☐	☒
18) Were all samples received within hold time?	☒	☐	☐

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
4724	2.6	<=6.0	15	N/A
6612	3.6	<=6.0	15	N/A
6872	5.4	<=6.0	15	N/A

Ensero Solutions
3100-PO205

ACZ Project ID: L67355

Date Received: 07/23/2021 10:47

Received By:

Date Printed: 7/26/2021

6338	5.2	<=6.0	15	N/A
6874	7.3	<=6.0	15	N/A

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

**Laboratories, Inc.**

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Christie Brizinski
Company: Ensero Solutions
E-mail: cbrizinski@ensero.com

Address: 131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524
Telephone: 867-668-6463, ext 229

Copy of Report to:

Name: Evan Valencia
Company: Ensero Solutions

E-mail: evalencia@ensero.com
Telephone: 818-688-1839

Invoice to:

Name: Pauline Wong
Company: Ensero Solutions
E-mail: ap@ensero.com

Address: 131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524
Telephone: 778-404-1182

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses?

YES ☒
NO ☐

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified.

Are samples for SDWA Compliance Monitoring?

Yes ☐ No ☒

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: EV Sampler's Site Information State CO Zip code 80401 Time Zone MTN

*Sampler's Signature: [Signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

ANALYSES REQUESTED (attach list or use quote number)

Quote #: Ensero-2020

PO#: 3100-PO205

Reporting state for compliance testing: CO

Check box if samples include NRC licensed material? ☐

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	TSS	Sample suite #1	Sample suite #2	COD	LLHG trip blank	Sample suite #3	TDS	
Sumps	7-20-2021: 9:40	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
MW-07	7-20-2021: 10:40	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
MW-06	7-21-2021: 9:58	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
MW-19	7-21-2021: 11:04	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
MW-0	7-21-2021: 13:19	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
MW-00	7-21-2021: 14:30	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
Raw Feed	7-21-2021: 15:15	GW	9	☐	☐	☐	☐	☐	☒	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐	☐	☐

Matrix SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

63 containers accounted for by this COC. Shipped 7/22/2021.

Cooler 3 of 5 accounted for by this COC

Please also send reports to importer@alexco.ehsdata.com

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:

DATE:TIME

RECEIVED BY:

DATE:TIME

<u>E. Valencia</u>	<u>7/22/21: 15:00</u>	<u>[Signature]</u>	<u>7-23-2021</u>

FRMAD050.06.14.14

White - Return with sample. Yellow - Retain for your records.



67355 Chain of Custody

67355-2108181705

August 24, 2021

Report to:

Christie Brizinski
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

Bill to:

Pauline Wong
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

cc: Ensero/Alexco Importer, Evan Valencia

Project ID: 3100-PO205

ACZ Project ID: L67442

Christie Brizinski:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 29, 2021. This project has been assigned to ACZ's project number, L67442. Please reference this number in all future inquiries.

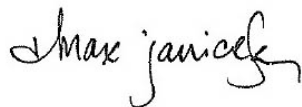
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L67442. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 23, 2021. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Max Janicek has reviewed and
approved this report.



Ensero Solutions

August 24, 2021

Project ID: 3100-PO205

ACZ Project ID: L67442

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 3 miscellaneous samples from Ensero Solutions on July 29, 2021. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L67442. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic, radiochemistry parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition, the following has been noted with this specific project:

The below is from WG524849

Qualifier: N1

Applies to:

L67442-03/TOTAL DISSOLVED SOLIDS

Oven range is 80 C to 91 C. Over the weekend, the oven had a minor high temperature out of range. When the oven temperature was checked on Monday 8/9/21, the max temp read at 92.6 C. The WG was removed from the oven on 8/9/21 when the oven was back in range. The WG was examined and there was no splattering of samples.

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-15

ACZ Sample ID: **L67442-01**

Date Sampled: 07/27/21 10:46

Date Received: 07/29/21

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						08/05/21 14:38	njj1/md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								08/04/21 13:47	bls/md
Total Hot Plate Digestion	M200.2 ICP-MS								08/10/21 8:13	bsu
Total Hot Plate Digestion	M200.2 ICP								08/10/21 11:45	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-15

ACZ Sample ID: **L67442-01**

Date Sampled: 07/27/21 10:46

Date Received: 07/29/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/03/21 17:56	kja
Aluminum, total	M200.7 ICP	1	<0.05	U	*	mg/L	0.05	0.25	08/11/21 11:43	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/13/21 13:53	bsu
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/11/21 16:28	bsu
Arsenic, dissolved	M200.8 ICP-MS	1	0.00478			mg/L	0.0002	0.001	08/13/21 13:53	bsu
Arsenic, total	M200.8 ICP-MS	1	0.00505			mg/L	0.0002	0.001	08/11/21 16:28	bsu
Boron, dissolved	M200.7 ICP	1	0.194			mg/L	0.03	0.1	08/03/21 17:56	kja
Boron, total	M200.7 ICP	1	0.217			mg/L	0.03	0.1	08/11/21 11:43	kja
Calcium, dissolved	M200.7 ICP	1	23.1			mg/L	0.1	0.5	08/03/21 17:56	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/03/21 17:56	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/11/21 11:43	kja
Copper, dissolved	M200.7 ICP	1	0.017	B		mg/L	0.01	0.05	08/03/21 17:56	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/11/21 11:43	kja
Iron, dissolved	M200.7 ICP	1	0.120	B		mg/L	0.06	0.15	08/03/21 17:56	kja
Iron, total	M200.7 ICP	1	0.123	B	*	mg/L	0.06	0.15	08/11/21 11:43	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/13/21 13:53	bsu
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/11/21 16:28	bsu
Magnesium, dissolved	M200.7 ICP	1	10.9			mg/L	0.2	1	08/03/21 17:56	kja
Manganese, dissolved	M200.7 ICP	1	0.020	B		mg/L	0.01	0.05	08/03/21 17:56	kja
Manganese, total	M200.7 ICP	1	0.018	B		mg/L	0.01	0.05	08/11/21 11:43	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/04/21 14:02	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/04/21 14:31	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.0163			mg/L	0.0002	0.0005	08/13/21 13:53	bsu
Molybdenum, total	M200.8 ICP-MS	1	0.0169			mg/L	0.0002	0.0005	08/11/21 16:28	bsu
Potassium, dissolved	M200.7 ICP	1	7.56			mg/L	0.2	1	08/03/21 17:56	kja
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/13/21 13:53	bsu
Selenium, total	M200.8 ICP-MS	1	0.00013	B		mg/L	0.0001	0.00025	08/11/21 16:28	bsu
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/13/21 13:53	bsu
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/11/21 16:28	bsu
Sodium, dissolved	M200.7 ICP	1	202		*	mg/L	0.2	1	08/03/21 17:56	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/13/21 13:53	bsu
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/11/21 16:28	bsu
Uranium, dissolved	M200.8 ICP-MS	1	0.0306			mg/L	0.0001	0.0005	08/13/21 13:53	bsu
Uranium, total	M200.8 ICP-MS	1	0.0318			mg/L	0.0001	0.0005	08/11/21 16:28	bsu
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/03/21 17:56	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/11/21 11:43	kja

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-15

ACZ Sample ID: **L67442-01**

Date Sampled: 07/27/21 10:46

Date Received: 07/29/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	249			mg/L	2	20	08/06/21 0:00	eep
Carbonate as CaCO ₃		1	9.3	B		mg/L	2	20	08/06/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	08/06/21 0:00	eep
Total Alkalinity		1	258			mg/L	2	20	08/06/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-8.3			%			08/24/21 0:00	calc
Sum of Anions			13			meq/L			08/24/21 0:00	calc
Sum of Cations			11			meq/L			08/24/21 0:00	calc
Chloride	SM4500Cl-E	1	20.7			mg/L	0.5	2	08/20/21 13:15	wtc
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/06/21 14:45	md
Fluoride	SM4500F-C	1	1.75			mg/L	0.15	0.35	08/17/21 13:09	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.098	B	*	mg/L	0.02	0.1	08/14/21 1:30	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/24/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid	1	<0.01	U	*	mg/L	0.01	0.05	08/06/21 12:50	md
Residue, Filterable (TDS) @180C	SM2540C	1	724		*	mg/L	20	40	08/02/21 11:56	scd
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	07/29/21 20:17	jck
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	15	327		*	mg/L	15	75	08/21/21 11:41	wtc
TDS (calculated)	Calculation		751			mg/L			08/24/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		0.96						08/24/21 0:00	calc

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-13

ACZ Sample ID: **L67442-02**

Date Sampled: 07/27/21 13:54

Date Received: 07/29/21

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						08/05/21 15:21	njj1/md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								08/04/21 14:01	bls/md
Total Hot Plate Digestion	M200.2 ICP-MS								08/10/21 8:34	bsu
Total Hot Plate Digestion	M200.2 ICP								08/10/21 11:59	kja

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Project ID: 3100-PO205

Sample ID: MW-13

ACZ Sample ID: **L67442-02**

Date Sampled: 07/27/21 13:54

Date Received: 07/29/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/03/21 18:06	kja
Aluminum, total	M200.7 ICP	1	<0.05	U	*	mg/L	0.05	0.25	08/11/21 11:46	kja
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/13/21 13:55	bsu
Antimony, total	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	08/11/21 16:30	bsu
Arsenic, dissolved	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/13/21 13:55	bsu
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	08/11/21 16:30	bsu
Boron, dissolved	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	08/03/21 18:06	kja
Boron, total	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	08/11/21 11:46	kja
Calcium, dissolved	M200.7 ICP	1	45.5			mg/L	0.1	0.5	08/03/21 18:06	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/03/21 18:06	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/11/21 11:46	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/03/21 18:06	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/11/21 11:46	kja
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	08/03/21 18:06	kja
Iron, total	M200.7 ICP	1	<0.06	U	*	mg/L	0.06	0.15	08/11/21 11:46	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/13/21 13:55	bsu
Lead, total	M200.8 ICP-MS	1	0.00016	B		mg/L	0.0001	0.0005	08/11/21 16:30	bsu
Magnesium, dissolved	M200.7 ICP	1	14.7			mg/L	0.2	1	08/03/21 18:06	kja
Manganese, dissolved	M200.7 ICP	1	0.519			mg/L	0.01	0.05	08/03/21 18:06	kja
Manganese, total	M200.7 ICP	1	0.547			mg/L	0.01	0.05	08/11/21 11:46	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/04/21 14:03	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/04/21 14:32	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.0893			mg/L	0.0002	0.0005	08/13/21 13:55	bsu
Molybdenum, total	M200.8 ICP-MS	1	0.0925			mg/L	0.0002	0.0005	08/11/21 16:30	bsu
Potassium, dissolved	M200.7 ICP	1	5.25			mg/L	0.2	1	08/03/21 18:06	kja
Selenium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/13/21 13:55	bsu
Selenium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.00025	08/11/21 16:30	bsu
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/13/21 13:55	bsu
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/11/21 16:30	bsu
Sodium, dissolved	M200.7 ICP	1	20.3		*	mg/L	0.2	1	08/03/21 18:06	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/13/21 13:55	bsu
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/11/21 16:30	bsu
Uranium, dissolved	M200.8 ICP-MS	1	0.0267			mg/L	0.0001	0.0005	08/13/21 13:55	bsu
Uranium, total	M200.8 ICP-MS	1	0.0269			mg/L	0.0001	0.0005	08/11/21 16:30	bsu
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/03/21 18:06	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/11/21 11:46	kja

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Project ID: 3100-PO205

Sample ID: MW-13

ACZ Sample ID: **L67442-02**

Date Sampled: 07/27/21 13:54

Date Received: 07/29/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	158			mg/L	2	20	08/06/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	08/06/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	08/06/21 0:00	eep
Total Alkalinity		1	158			mg/L	2	20	08/06/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-4.2			%			08/24/21 0:00	calc
Sum of Anions			5.0			meq/L			08/24/21 0:00	calc
Sum of Cations			4.6			meq/L			08/24/21 0:00	calc
Chloride	SM4500Cl-E	1	4.82			mg/L	0.5	2	08/20/21 13:15	wtc
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/06/21 14:47	md
Fluoride	SM4500F-C	1	0.48			mg/L	0.15	0.35	08/17/21 13:12	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.026	B	*	mg/L	0.02	0.1	08/14/21 1:32	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/24/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid	1	<0.01	U	*	mg/L	0.01	0.05	08/06/21 12:52	md
Residue, Filterable (TDS) @180C	SM2540C	2	276		*	mg/L	40	80	08/02/21 11:58	scd
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	08/02/21 13:25	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	79.9		*	mg/L	5	25	08/21/21 11:10	wtc
TDS (calculated)	Calculation		268			mg/L			08/24/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.03						08/24/21 0:00	calc

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Project ID: 3100-PO205

Sample ID: MW-14

ACZ Sample ID: **L67442-03**

Date Sampled: 07/27/21 15:44

Date Received: 07/29/21

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation		-						08/05/21 16:05	njj1/md
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								08/04/21 14:15	bls/md
Total Hot Plate Digestion	M200.2 ICP-MS								08/10/21 9:39	bsu
Total Hot Plate Digestion	M200.2 ICP								08/10/21 12:13	kja

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Project ID: 3100-PO205

Sample ID: MW-14

ACZ Sample ID: **L67442-03**

Date Sampled: 07/27/21 15:44

Date Received: 07/29/21

Sample Matrix: Surface Water

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	08/03/21 18:09	kja
Aluminum, total	M200.7 ICP	1	<0.05	U	*	mg/L	0.05	0.25	08/11/21 11:49	kja
Antimony, dissolved	M200.8 ICP-MS	1	0.00129	B		mg/L	0.0004	0.002	08/13/21 13:57	bsu
Antimony, total	M200.8 ICP-MS	1	0.00146	B		mg/L	0.0004	0.002	08/11/21 16:35	bsu
Arsenic, dissolved	M200.8 ICP-MS	1	0.00022	B		mg/L	0.0002	0.001	08/13/21 13:57	bsu
Arsenic, total	M200.8 ICP-MS	1	0.00035	B		mg/L	0.0002	0.001	08/11/21 16:35	bsu
Boron, dissolved	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	08/03/21 18:09	kja
Boron, total	M200.7 ICP	1	0.032	B		mg/L	0.03	0.1	08/11/21 11:49	kja
Calcium, dissolved	M200.7 ICP	1	22.1			mg/L	0.1	0.5	08/03/21 18:09	kja
Chromium, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/03/21 18:09	kja
Chromium, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/11/21 11:49	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/03/21 18:09	kja
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/11/21 11:49	kja
Iron, dissolved	M200.7 ICP	1	0.209			mg/L	0.06	0.15	08/03/21 18:09	kja
Iron, total	M200.7 ICP	1	0.304		*	mg/L	0.06	0.15	08/11/21 11:49	kja
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/13/21 13:57	bsu
Lead, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/11/21 16:35	bsu
Magnesium, dissolved	M200.7 ICP	1	5.68			mg/L	0.2	1	08/03/21 18:09	kja
Manganese, dissolved	M200.7 ICP	1	0.200			mg/L	0.01	0.05	08/03/21 18:09	kja
Manganese, total	M200.7 ICP	1	0.220			mg/L	0.01	0.05	08/11/21 11:49	kja
Mercury, dissolved	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/04/21 14:04	mlh
Mercury, total	M245.1 CVAA	1	<0.0002	U	*	mg/L	0.0002	0.001	08/04/21 14:35	mlh
Molybdenum, dissolved	M200.8 ICP-MS	1	0.00329			mg/L	0.0002	0.0005	08/13/21 13:57	bsu
Molybdenum, total	M200.8 ICP-MS	1	0.00347			mg/L	0.0002	0.0005	08/11/21 16:35	bsu
Potassium, dissolved	M200.7 ICP	1	3.68			mg/L	0.2	1	08/03/21 18:09	kja
Selenium, dissolved	M200.8 ICP-MS	1	0.00048			mg/L	0.0001	0.00025	08/13/21 13:57	bsu
Selenium, total	M200.8 ICP-MS	1	0.00059			mg/L	0.0001	0.00025	08/11/21 16:35	bsu
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/13/21 13:57	bsu
Silver, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/11/21 16:35	bsu
Sodium, dissolved	M200.7 ICP	1	20.1		*	mg/L	0.2	1	08/03/21 18:09	kja
Thallium, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/13/21 13:57	bsu
Thallium, total	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/11/21 16:35	bsu
Uranium, dissolved	M200.8 ICP-MS	1	0.00201			mg/L	0.0001	0.0005	08/13/21 13:57	bsu
Uranium, total	M200.8 ICP-MS	1	0.00218			mg/L	0.0001	0.0005	08/11/21 16:35	bsu
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/03/21 18:09	kja
Zinc, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/11/21 11:49	kja

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Project ID: 3100-PO205

Sample ID: MW-14

ACZ Sample ID: **L67442-03**

Date Sampled: 07/27/21 15:44

Date Received: 07/29/21

Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	90.6			mg/L	2	20	08/06/21 0:00	eep
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	08/06/21 0:00	eep
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	08/06/21 0:00	eep
Total Alkalinity		1	90.6			mg/L	2	20	08/06/21 0:00	eep
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-1.9			%			08/24/21 0:00	calc
Sum of Anions			2.7			meq/L			08/24/21 0:00	calc
Sum of Cations			2.6			meq/L			08/24/21 0:00	calc
Chloride	SM4500Cl-E	1	2.79			mg/L	0.5	2	08/20/21 13:15	wtc
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	08/10/21 9:54	md
Fluoride	SM4500F-C	1	0.44			mg/L	0.15	0.35	08/17/21 13:23	eep
Nitrate/Nitrite as N	M353.2 - H ₂ SO ₄ preserved	1	0.096	B	*	mg/L	0.02	0.1	08/14/21 1:33	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	08/24/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid	1	<0.01	U	*	mg/L	0.01	0.05	08/06/21 12:54	md
Residue, Filterable (TDS) @180C	SM2540C	1	164	H	*	mg/L	20	40	08/06/21 17:50	jck
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	08/02/21 13:26	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	35.7		*	mg/L	5	25	08/21/21 11:10	wtc
TDS (calculated)	Calculation		146			mg/L			08/24/21 0:00	calc
TDS (ratio - measured/calculated)	Calculation		1.12						08/24/21 0:00	calc


Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.
(5)	Standard Methods for the Examination of Water and Wastewater.

Comments

(1)	QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4)	An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5)	If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

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ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3

SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524775													
WG524775PBW1	PBW	08/05/21 17:24				4.4	mg/L		-20	20			
WG524775LCSW3	LCSW	08/05/21 17:42	WC210721-3	820.0001		796.7	mg/L	97	90	110			
WG524775LCSW6	LCSW	08/05/21 20:43	WC210721-3	820.0001		799.9	mg/L	98	90	110			
WG524775PBW2	PBW	08/05/21 20:50				U	mg/L		-20	20			
WG524775LCSW9	LCSW	08/05/21 23:59	WC210721-3	820.0001		801.9	mg/L	98	90	110			
WG524775PBW3	PBW	08/06/21 0:06				U	mg/L		-20	20			
L67452-07DUP	DUP	08/06/21 1:43			88.4	103.7	mg/L				16	20	
WG524775LCSW12	LCSW	08/06/21 3:32	WC210721-3	820.0001		819.4	mg/L	100	90	110			
WG524775PBW4	PBW	08/06/21 3:39				U	mg/L		-20	20			

Aluminum, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524577													
WG524577ICV	ICV	08/03/21 16:20	II210720-1	2		1.975	mg/L	99	95	105			
WG524577ICB	ICB	08/03/21 16:26				U	mg/L		-0.15	0.15			
WG524577PQV	PQV	08/03/21 16:29	II210707-2	.250325		.256	mg/L	102	70	130			
WG524577SIC	SIC	08/03/21 16:32	II210707-4	200.410325		205.2	mg/L	102	1	200			
WG524577LFB	LFB	08/03/21 16:39	II210714-2	1.0008		1.012	mg/L	101	85	115			
WG524577CCV1	CCV	08/03/21 17:11	II210720-2	1		.979	mg/L	98	90	110			
WG524577CCB1	CCB	08/03/21 17:14				U	mg/L		-0.15	0.15			
WG524577CCV2	CCV	08/03/21 17:49	II210720-2	1		.945	mg/L	95	90	110			
WG524577CCB2	CCB	08/03/21 17:53				U	mg/L		-0.15	0.15			
L67442-01AS	AS	08/03/21 17:59	II210714-2	1.0008	U	.995	mg/L	99	85	115			
L67442-01ASD	ASD	08/03/21 18:02	II210714-2	1.0008	U	.993	mg/L	99	85	115	0	20	
WG524577CCV3	CCV	08/03/21 18:12	II210720-2	1		.964	mg/L	96	90	110			
WG524577CCB3	CCB	08/03/21 18:15				U	mg/L		-0.15	0.15			

Aluminum, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525059													
WG525059ICV	ICV	08/11/21 11:19	II210801-1	2		1.933	mg/L	97	95	105			
WG525059ICB	ICB	08/11/21 11:25				U	mg/L		-0.15	0.15			
WG525059PQV	PQV	08/11/21 11:28	II210804-2	.250325		.235	mg/L	94	70	130			
WG525059SIC	SIC	08/11/21 11:31	II210809-2	200.410325		197.5	mg/L	99	1	200			
WG524983LRB	LRB	08/11/21 11:37				U	mg/L		-0.11	0.11			
WG524983LFB	LFB	08/11/21 11:40	II210810-2	1.0008		1.019	mg/L	102	85	115			
L67574-01LFM	LFM	08/11/21 12:05	II2XWATER	2.0038	225	324.6	mg/L	4971	70	130			M3
WG525059CCV1	CCV	08/11/21 12:08	II210809-1	1		.971	mg/L	97	90	110			
WG525059CCB1	CCB	08/11/21 12:11				U	mg/L		-0.15	0.15			
L67574-01LFMD	LFMD	08/11/21 12:14	II2XWATER	2.0038	225	341.2	mg/L	5799	70	130	5	20	M3
WG525059CCV2	CCV	08/11/21 12:44	II210809-1	1		.967	mg/L	97	90	110			
WG525059CCB2	CCB	08/11/21 12:47				U	mg/L		-0.15	0.15			
WG525059CCV3	CCV	08/11/21 13:09	II210809-1	1		.984	mg/L	98	90	110			
WG525059CCB3	CCB	08/11/21 13:12				U	mg/L		-0.15	0.15			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Antimony, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525250													
WG525250ICV	ICV	08/13/21 13:29	MS210727-2	.0201		.01879	mg/L	93	90	110			
WG525250ICB	ICB	08/13/21 13:31				U	mg/L		-0.00088	0.00088			
L58831-66AS	AS	08/13/21 13:39	MS210727-5	.01	U	.01003	mg/L	100	70	130			
L58831-66ASD	ASD	08/13/21 13:40	MS210727-5	.01	U	.01023	mg/L	102	70	130	2	20	
WG525250CCV1	CCV	08/13/21 13:48	MS210806-2	.0125		.0125	mg/L	100	90	110			
WG525250CCB1	CCB	08/13/21 13:49				U	mg/L		-0.0012	0.0012			
L67580-03AS	AS	08/13/21 14:00	MS210727-5	.01	U	.0094	mg/L	94	70	130			
L67580-03ASD	ASD	08/13/21 14:02	MS210727-5	.01	U	.00964	mg/L	96	70	130	3	20	
WG525250CCV2	CCV	08/13/21 14:09	MS210806-2	.0125		.01245	mg/L	100	90	110			
WG525250CCB2	CCB	08/13/21 14:11				U	mg/L		-0.0012	0.0012			
WG525250LFB	LFB	08/13/21 14:22	MS210727-5	.01		.01014	mg/L	101	85	115			
WG525250CCV3	CCV	08/13/21 14:24	MS210806-2	.0125		.01283	mg/L	103	90	110			
WG525250CCB3	CCB	08/13/21 14:26				U	mg/L		-0.0012	0.0012			

Antimony, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525096													
WG525096ICV	ICV	08/11/21 16:21	MS210727-2	.0201		.01888	mg/L	94	90	110			
WG525096ICB	ICB	08/11/21 16:22				U	mg/L		-0.0012	0.0012			
WG524960LRB	LRB	08/11/21 16:24				U	mg/L		-0.00088	0.00088			
WG524960LFB	LFB	08/11/21 16:26	MS210727-5	.01		.01038	mg/L	104	85	115			
L67442-02LFM	LFM	08/11/21 16:32	MS210727-5	.01	U	.01053	mg/L	105	70	130			
L67442-02LFMD	LFMD	08/11/21 16:33	MS210727-5	.01	U	.01058	mg/L	106	70	130	0	20	
WG525096CCV1	CCV	08/11/21 16:39	MS210806-2	.0125		.01222	mg/L	98	90	110			
WG525096CCB1	CCB	08/11/21 16:41				U	mg/L		-0.0012	0.0012			
WG525096CCV2	CCV	08/11/21 17:01	MS210806-2	.0125		.01201	mg/L	96	90	110			
WG525096CCB2	CCB	08/11/21 17:02				U	mg/L		-0.0012	0.0012			
WG525096CCV3	CCV	08/11/21 17:19	MS210806-2	.0125		.01222	mg/L	98	90	110			
WG525096CCB3	CCB	08/11/21 17:21				U	mg/L		-0.0012	0.0012			

Arsenic, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525250													
WG525250ICV	ICV	08/13/21 13:29	MS210727-2	.05		.05118	mg/L	102	90	110			
WG525250ICB	ICB	08/13/21 13:31				U	mg/L		-0.00044	0.00044			
L58831-66AS	AS	08/13/21 13:39	MS210727-5	.05005	.00151	.05551	mg/L	108	70	130			
L58831-66ASD	ASD	08/13/21 13:40	MS210727-5	.05005	.00151	.0563	mg/L	109	70	130	1	20	
WG525250CCV1	CCV	08/13/21 13:48	MS210806-2	.1001		.10002	mg/L	100	90	110			
WG525250CCB1	CCB	08/13/21 13:49				U	mg/L		-0.0006	0.0006			
L67580-03AS	AS	08/13/21 14:00	MS210727-5	.05005	U	.05159	mg/L	103	70	130			
L67580-03ASD	ASD	08/13/21 14:02	MS210727-5	.05005	U	.05257	mg/L	105	70	130	2	20	
WG525250CCV2	CCV	08/13/21 14:09	MS210806-2	.1001		.09865	mg/L	99	90	110			
WG525250CCB2	CCB	08/13/21 14:11				U	mg/L		-0.0006	0.0006			
WG525250LFB	LFB	08/13/21 14:22	MS210727-5	.05005		.05193	mg/L	104	85	115			
WG525250CCV3	CCV	08/13/21 14:24	MS210806-2	.1001		.09864	mg/L	99	90	110			
WG525250CCB3	CCB	08/13/21 14:26				U	mg/L		-0.0006	0.0006			
WG525250CCV4	CCV	08/13/21 14:31	MS210806-2	.1001		.09987	mg/L	100	90	110			
WG525250CCB4	CCB	08/13/21 14:33				U	mg/L		-0.0006	0.0006			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Arsenic, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525096													
WG525096ICV	ICV	08/11/21 16:21	MS210727-2	.05		.04987	mg/L	100	90	110			
WG525096ICB	ICB	08/11/21 16:22				U	mg/L		-0.0006	0.0006			
WG524960LRB	LRB	08/11/21 16:24				U	mg/L		-0.00044	0.00044			
WG524960LFB	LFB	08/11/21 16:26	MS210727-5	.05005		.05084	mg/L	102	85	115			
L67442-02LFM	LFM	08/11/21 16:32	MS210727-5	.05005	U	.05174	mg/L	103	70	130			
L67442-02LFMD	LFMD	08/11/21 16:33	MS210727-5	.05005	U	.05208	mg/L	104	70	130	1	20	
WG525096CCV1	CCV	08/11/21 16:39	MS210806-2	.1001		.09934	mg/L	99	90	110			
WG525096CCB1	CCB	08/11/21 16:41				U	mg/L		-0.0006	0.0006			
WG525096CCV2	CCV	08/11/21 17:01	MS210806-2	.1001		.09903	mg/L	99	90	110			
WG525096CCB2	CCB	08/11/21 17:02				U	mg/L		-0.0006	0.0006			
WG525096CCV3	CCV	08/11/21 17:19	MS210806-2	.1001		.09979	mg/L	100	90	110			
WG525096CCB3	CCB	08/11/21 17:21				U	mg/L		-0.0006	0.0006			

Boron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524577													
WG524577ICV	ICV	08/03/21 16:20	II210720-1	2		1.98	mg/L	99	95	105			
WG524577ICB	ICB	08/03/21 16:26				U	mg/L		-0.09	0.09			
WG524577PQV	PQV	08/03/21 16:29	II210707-2	.1001		.103	mg/L	103	70	130			
WG524577SIC	SIC	08/03/21 16:32	II210707-4	.1001		.095	mg/L	95	80	120			
WG524577LFB	LFB	08/03/21 16:39	II210714-2	.5005		.497	mg/L	99	85	115			
WG524577CCV1	CCV	08/03/21 17:11	II210720-2	1		.972	mg/L	97	90	110			
WG524577CCB1	CCB	08/03/21 17:14				U	mg/L		-0.09	0.09			
WG524577CCV2	CCV	08/03/21 17:49	II210720-2	1		.957	mg/L	96	90	110			
WG524577CCB2	CCB	08/03/21 17:53				U	mg/L		-0.09	0.09			
L67442-01AS	AS	08/03/21 17:59	II210714-2	.5005	.194	.666	mg/L	94	85	115			
L67442-01ASD	ASD	08/03/21 18:02	II210714-2	.5005	.194	.679	mg/L	97	85	115	2	20	
WG524577CCV3	CCV	08/03/21 18:12	II210720-2	1		.964	mg/L	96	90	110			
WG524577CCB3	CCB	08/03/21 18:15				U	mg/L		-0.09	0.09			

Boron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525059													
WG525059ICV	ICV	08/11/21 11:19	II210801-1	2		1.972	mg/L	99	95	105			
WG525059ICB	ICB	08/11/21 11:25				U	mg/L		-0.09	0.09			
WG525059PQV	PQV	08/11/21 11:28	II210804-2	.1001		.119	mg/L	119	70	130			
WG525059SIC	SIC	08/11/21 11:31	II210809-2	.1001		.111	mg/L	111	80	120			
WG524983LRB	LRB	08/11/21 11:37				U	mg/L		-0.066	0.066			
WG524983LFB	LFB	08/11/21 11:40	II210810-2	.5005		.532	mg/L	106	85	115			
L67574-01LFM	LFM	08/11/21 12:05	II2XWATER	1.001	.25	1.302	mg/L	105	70	130			
WG525059CCV1	CCV	08/11/21 12:08	II210809-1	1		.987	mg/L	99	90	110			
WG525059CCB1	CCB	08/11/21 12:11				U	mg/L		-0.09	0.09			
L67574-01LFMD	LFMD	08/11/21 12:14	II2XWATER	1.001	.25	1.319	mg/L	107	70	130	1	20	
WG525059CCV2	CCV	08/11/21 12:44	II210809-1	1		.978	mg/L	98	90	110			
WG525059CCB2	CCB	08/11/21 12:47				U	mg/L		-0.09	0.09			
WG525059CCV3	CCV	08/11/21 13:09	II210809-1	1		.965	mg/L	97	90	110			
WG525059CCB3	CCB	08/11/21 13:12				U	mg/L		-0.09	0.09			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Calcium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524577													
WG524577ICV	ICV	08/03/21 16:20	II210720-1	100		99.35	mg/L	99	95	105			
WG524577ICB	ICB	08/03/21 16:26				U	mg/L		-0.3	0.3			
WG524577PQV	PQV	08/03/21 16:29	II210707-2	.50015		.47	mg/L	94	70	130			
WG524577SIC	SIC	08/03/21 16:32	II210707-4	200.56015		199.4	mg/L	99	1	200			
WG524577LFB	LFB	08/03/21 16:39	II210714-2	67.99734		67.92	mg/L	100	85	115			
WG524577CCV1	CCV	08/03/21 17:11	II210720-2	50		48.77	mg/L	98	90	110			
WG524577CCB1	CCB	08/03/21 17:14				U	mg/L		-0.3	0.3			
WG524577CCV2	CCV	08/03/21 17:49	II210720-2	50		47.44	mg/L	95	90	110			
WG524577CCB2	CCB	08/03/21 17:53				U	mg/L		-0.3	0.3			
L67442-01AS	AS	08/03/21 17:59	II210714-2	67.99734	23.1	88.06	mg/L	96	85	115			
L67442-01ASD	ASD	08/03/21 18:02	II210714-2	67.99734	23.1	87.39	mg/L	95	85	115	1	20	
WG524577CCV3	CCV	08/03/21 18:12	II210720-2	50		48.09	mg/L	96	90	110			
WG524577CCB3	CCB	08/03/21 18:15				U	mg/L		-0.3	0.3			

Chloride

SM4500CI-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525477													
WG525477ICB	ICB	08/20/21 12:42				U	mg/L		-1.5	1.5			
WG525477ICV	ICV	08/20/21 12:42	WI210503-1	54.89		54.78	mg/L	100	90	110			
WG525477CCV1	CCV	08/20/21 13:15	WI210203-7	50.05		47.55	mg/L	95	90	110			
WG525477CCB1	CCB	08/20/21 13:15				U	mg/L		-1.5	1.5			
WG525477LFB1	LFB	08/20/21 13:15	WI200327-3	30.03		29.73	mg/L	99	90	110			
L67442-01DUP	DUP	08/20/21 13:15			20.7	20.77	mg/L				0	20	
L67442-02AS	AS	08/20/21 13:15	WI200327-3	30.03	4.82	34.88	mg/L	100	90	110			
WG525477CCV2	CCV	08/20/21 13:17	WI210203-7	50.05		47.51	mg/L	95	90	110			
WG525477CCB2	CCB	08/20/21 13:17				U	mg/L		-1.5	1.5			
WG525477CCV3	CCV	08/20/21 13:19	WI210203-7	50.05		47.76	mg/L	95	90	110			
WG525477CCB3	CCB	08/20/21 13:19				U	mg/L		-1.5	1.5			
WG525477LFB2	LFB	08/20/21 13:19	WI200327-3	30.03		30.05	mg/L	100	90	110			
WG525477CCV4	CCV	08/20/21 13:25	WI210203-7	50.05		47.53	mg/L	95	90	110			
WG525477CCB4	CCB	08/20/21 13:25				U	mg/L		-1.5	1.5			
WG525477CCV5	CCV	08/20/21 13:25	WI210203-7	50.05		47.34	mg/L	95	90	110			
WG525477CCB5	CCB	08/20/21 13:25				U	mg/L		-1.5	1.5			
WG525477CCV6	CCV	08/20/21 13:31	WI210203-7	50.05		47.57	mg/L	95	90	110			
WG525477CCB6	CCB	08/20/21 13:31				U	mg/L		-1.5	1.5			
WG525477CCV7	CCV	08/20/21 13:49	WI210203-7	50.05		47.07	mg/L	94	90	110			
WG525477CCB7	CCB	08/20/21 13:49				U	mg/L		-1.5	1.5			
WG525477CCV8	CCV	08/20/21 13:50	WI210203-7	50.05		47.14	mg/L	94	90	110			
WG525477CCB8	CCB	08/20/21 13:50				U	mg/L		-1.5	1.5			
WG525477CCV9	CCV	08/20/21 13:58	WI210203-7	50.05		47.53	mg/L	95	90	110			
WG525477CCB9	CCB	08/20/21 13:58				U	mg/L		-1.5	1.5			
WG525477CCV10	CCV	08/20/21 14:10	WI210203-7	50.05		47.27	mg/L	94	90	110			
WG525477CCB10	CCB	08/20/21 14:10				U	mg/L		-1.5	1.5			
WG525477CCV11	CCV	08/20/21 14:11	WI210203-7	50.05		47.48	mg/L	95	90	110			
WG525477CCB11	CCB	08/20/21 14:11				U	mg/L		-1.5	1.5			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Chromium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524577													
WG524577ICV	ICV	08/03/21 16:20	II210720-1	2		1.969	mg/L	98	95	105			
WG524577ICB	ICB	08/03/21 16:26				U	mg/L		-0.06	0.06			
WG524577PQV	PQV	08/03/21 16:29	II210707-2	.0502		.05	mg/L	100	70	130			
WG524577SIC	SIC	08/03/21 16:32	II210707-4	.1004		.087	mg/L	87	80	120			
WG524577LFB	LFB	08/03/21 16:39	II210714-2	.502		.498	mg/L	99	85	115			
WG524577CCV1	CCV	08/03/21 17:11	II210720-2	1		.978	mg/L	98	90	110			
WG524577CCB1	CCB	08/03/21 17:14				U	mg/L		-0.06	0.06			
WG524577CCV2	CCV	08/03/21 17:49	II210720-2	1		.95	mg/L	95	90	110			
WG524577CCB2	CCB	08/03/21 17:53				U	mg/L		-0.06	0.06			
L67442-01AS	AS	08/03/21 17:59	II210714-2	.502	U	.481	mg/L	96	85	115			
L67442-01ASD	ASD	08/03/21 18:02	II210714-2	.502	U	.473	mg/L	94	85	115	2	20	
WG524577CCV3	CCV	08/03/21 18:12	II210720-2	1		.96	mg/L	96	90	110			
WG524577CCB3	CCB	08/03/21 18:15				U	mg/L		-0.06	0.06			

Chromium, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525059													
WG525059ICV	ICV	08/11/21 11:19	II210801-1	2		1.92	mg/L	96	95	105			
WG525059ICB	ICB	08/11/21 11:25				U	mg/L		-0.06	0.06			
WG525059PQV	PQV	08/11/21 11:28	II210804-2	.0502		.059	mg/L	118	70	130			
WG525059SIC	SIC	08/11/21 11:31	II210809-2	.1004		.105	mg/L	105	80	120			
WG524983LRB	LRB	08/11/21 11:37				U	mg/L		-0.044	0.044			
WG524983LFB	LFB	08/11/21 11:40	II210810-2	.502		.516	mg/L	103	85	115			
L67574-01LFM	LFM	08/11/21 12:05	II2XWATER	.996	.37	1.358	mg/L	99	70	130			
WG525059CCV1	CCV	08/11/21 12:08	II210809-1	1		.964	mg/L	96	90	110			
WG525059CCB1	CCB	08/11/21 12:11				U	mg/L		-0.06	0.06			
L67574-01LFMD	LFMD	08/11/21 12:14	II2XWATER	.996	.37	1.395	mg/L	103	70	130	3	20	
WG525059CCV2	CCV	08/11/21 12:44	II210809-1	1		.96	mg/L	96	90	110			
WG525059CCB2	CCB	08/11/21 12:47				U	mg/L		-0.06	0.06			
WG525059CCV3	CCV	08/11/21 13:09	II210809-1	1		.949	mg/L	95	90	110			
WG525059CCB3	CCB	08/11/21 13:12				U	mg/L		-0.06	0.06			

Copper, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524577													
WG524577ICV	ICV	08/03/21 16:20	II210720-1	2		1.926	mg/L	96	95	105			
WG524577ICB	ICB	08/03/21 16:26				U	mg/L		-0.03	0.03			
WG524577PQV	PQV	08/03/21 16:29	II210707-2	.0502		.048	mg/L	96	70	130			
WG524577SIC	SIC	08/03/21 16:32	II210707-4	.1004		.1	mg/L	100	80	120			
WG524577LFB	LFB	08/03/21 16:39	II210714-2	.5		.489	mg/L	98	85	115			
WG524577CCV1	CCV	08/03/21 17:11	II210720-2	1		.962	mg/L	96	90	110			
WG524577CCB1	CCB	08/03/21 17:14				U	mg/L		-0.03	0.03			
WG524577CCV2	CCV	08/03/21 17:49	II210720-2	1		.937	mg/L	94	90	110			
WG524577CCB2	CCB	08/03/21 17:53				U	mg/L		-0.03	0.03			
L67442-01AS	AS	08/03/21 17:59	II210714-2	.5	.017	.476	mg/L	92	85	115			
L67442-01ASD	ASD	08/03/21 18:02	II210714-2	.5	.017	.467	mg/L	90	85	115	2	20	
WG524577CCV3	CCV	08/03/21 18:12	II210720-2	1		.947	mg/L	95	90	110			
WG524577CCB3	CCB	08/03/21 18:15				U	mg/L		-0.03	0.03			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Copper, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525059													
WG525059ICV	ICV	08/11/21 11:19	II210801-1	2		1.909	mg/L	95	95	105			
WG525059ICB	ICB	08/11/21 11:25				U	mg/L		-0.03	0.03			
WG525059PQV	PQV	08/11/21 11:28	II210804-2	.0502		.048	mg/L	96	70	130			
WG525059SIC	SIC	08/11/21 11:31	II210809-2	.1004		.089	mg/L	89	80	120			
WG524983LRB	LRB	08/11/21 11:37				U	mg/L		-0.022	0.022			
WG524983LFB	LFB	08/11/21 11:40	II210810-2	.5		.501	mg/L	100	85	115			
L67574-01LFM	LFM	08/11/21 12:05	II2XWATER	1	.185	1.105	mg/L	92	70	130			
WG525059CCV1	CCV	08/11/21 12:08	II210809-1	1		.946	mg/L	95	90	110			
WG525059CCB1	CCB	08/11/21 12:11				U	mg/L		-0.03	0.03			
L67574-01LFMD	LFMD	08/11/21 12:14	II2XWATER	1	.185	1.101	mg/L	92	70	130	0	20	
WG525059CCV2	CCV	08/11/21 12:44	II210809-1	1		.938	mg/L	94	90	110			
WG525059CCB2	CCB	08/11/21 12:47				U	mg/L		-0.03	0.03			
WG525059CCV3	CCV	08/11/21 13:09	II210809-1	1		.939	mg/L	94	90	110			
WG525059CCB3	CCB	08/11/21 13:12				U	mg/L		-0.03	0.03			

Cyanide, WAD

SM4500-CN I,E-Colorimetric w/ distillation

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524825													
WG524825ICV	ICV	08/06/21 14:28	WI210802-7	.3		.3055	mg/L	102	90	110			
WG524825ICB	ICB	08/06/21 14:29				U	mg/L		-0.003	0.003			
WG524721LRB	LRB	08/06/21 14:30				U	mg/L		-0.003	0.003			
WG524721LFB	LFB	08/06/21 14:31	WI210802-4	.2		.2018	mg/L	101	90	110			
WG524825CCV1	CCV	08/06/21 14:38	WI210802-6	.25		.2574	mg/L	103	90	110			
WG524825CCB1	CCB	08/06/21 14:39				U	mg/L		-0.003	0.003			
L67442-01DUP	DUP	08/06/21 14:46			U	U	mg/L				0	20	RA
L67442-02LFM	LFM	08/06/21 14:48	WI210802-4	.2	U	.2014	mg/L	101	90	110			
WG524825CCV2	CCV	08/06/21 14:49	WI210802-6	.25		.2583	mg/L	103	90	110			
WG524825CCB2	CCB	08/06/21 14:49				U	mg/L		-0.003	0.003			
WG524825CCV4	CCV	08/06/21 15:28	WI210802-6	.25		.261	mg/L	104	90	110			
WG524825CCB4	CCB	08/06/21 15:28				U	mg/L		-0.003	0.003			
WG524965													
WG524965ICV	ICV	08/10/21 9:42	WI210802-7	.3		.3004	mg/L	100	90	110			
WG524965ICB	ICB	08/10/21 9:43				U	mg/L		-0.003	0.003			
WG524721LRB	LRB	08/10/21 9:43				U	mg/L		-0.003	0.003			
WG524721LFB	LFB	08/10/21 9:44	WI210802-4	.2		.1948	mg/L	97	90	110			
L67435-05DUP	DUP	08/10/21 9:46			U	U	mg/L				0	20	RA
L67442-02LFM	LFM	08/10/21 9:51	WI210802-4	.2	U	.1946	mg/L	97	90	110			
WG524965CCV1	CCV	08/10/21 9:52	WI210802-6	.25		.2534	mg/L	101	90	110			
WG524965CCB1	CCB	08/10/21 9:53				U	mg/L		-0.003	0.003			
WG524965CCV2	CCV	08/10/21 10:00	WI210802-6	.25		.2532	mg/L	101	90	110			
WG524965CCB2	CCB	08/10/21 10:01				U	mg/L		-0.003	0.003			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Fluoride

SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525406													
WG525406ICV	ICV	08/17/21 12:54	WC210803-1	2.002		2.1	mg/L	105	90	110			
WG525406ICB	ICB	08/17/21 12:59				U	mg/L		-0.3	0.3			
WG525406PQV	PQV	08/17/21 13:03	WC210803-3	.3514		.35	mg/L	100	70	130			
WG525406LFB1	LFB	08/17/21 13:06	WC210803-9	5.02		5.2	mg/L	104	90	110			
L67442-02AS	AS	08/17/21 13:16	WC210803-9	5.02	.48	5.23	mg/L	95	90	110			
L67442-02ASD	ASD	08/17/21 13:19	WC210803-9	5.02	.48	5.37	mg/L	97	90	110	3	20	
WG525406CCV1	CCV	08/17/21 13:49	WC210803-1	2.002		2.14	mg/L	107	90	110			
WG525406CCB1	CCB	08/17/21 13:54				U	mg/L		-0.3	0.3			
WG525406CCV2	CCV	08/17/21 15:00	WC210803-1	2.002		2.18	mg/L	109	90	110			
WG525406CCB2	CCB	08/17/21 15:07				U	mg/L		-0.3	0.3			
WG525406CCV4	CCV	08/17/21 17:02	WC210803-1	2.002		2.17	mg/L	108	90	110			
WG525406CCB4	CCB	08/17/21 17:10				U	mg/L		-0.3	0.3			
WG525406CCV5	CCV	08/17/21 17:21	WC210803-1	2.002		2.19	mg/L	109	90	110			
WG525406CCB5	CCB	08/17/21 17:29				U	mg/L		-0.3	0.3			

Iron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524577													
WG524577ICV	ICV	08/03/21 16:20	II210720-1	2		1.988	mg/L	99	95	105			
WG524577ICB	ICB	08/03/21 16:26				U	mg/L		-0.18	0.18			
WG524577PQV	PQV	08/03/21 16:29	II210707-2	.15027		.166	mg/L	110	70	130			
WG524577SIC	SIC	08/03/21 16:32	II210707-4	200.17027		195.1	mg/L	97	1	200			
WG524577LFB	LFB	08/03/21 16:39	II210714-2	1.0001		1.008	mg/L	101	85	115			
WG524577CCV1	CCV	08/03/21 17:11	II210720-2	1		.986	mg/L	99	90	110			
WG524577CCB1	CCB	08/03/21 17:14				U	mg/L		-0.18	0.18			
WG524577CCV2	CCV	08/03/21 17:49	II210720-2	1		.959	mg/L	96	90	110			
WG524577CCB2	CCB	08/03/21 17:53				U	mg/L		-0.18	0.18			
L67442-01AS	AS	08/03/21 17:59	II210714-2	1.0001	.12	1.078	mg/L	96	85	115			
L67442-01ASD	ASD	08/03/21 18:02	II210714-2	1.0001	.12	1.066	mg/L	95	85	115	1	20	
WG524577CCV3	CCV	08/03/21 18:12	II210720-2	1		.969	mg/L	97	90	110			
WG524577CCB3	CCB	08/03/21 18:15				U	mg/L		-0.18	0.18			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Iron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525059													
WG525059ICV	ICV	08/11/21 11:19	II210801-1	2		1.944	mg/L	97	95	105			
WG525059ICB	ICB	08/11/21 11:25				U	mg/L		-0.18	0.18			
WG525059PQV	PQV	08/11/21 11:28	II210804-2	.15027		.148	mg/L	98	70	130			
WG525059SIC	SIC	08/11/21 11:31	II210809-2	200.17027		193.3	mg/L	97	1	200			
WG524983LRB	LRB	08/11/21 11:37				U	mg/L		-0.132	0.132			
WG524983LFB	LFB	08/11/21 11:40	II210810-2	1.0001		1.019	mg/L	102	85	115			
L67574-01LFM	LFM	08/11/21 12:05	II2XWATER	2.0022	251	250.4	mg/L	-30	70	130			M3
WG525059CCV1	CCV	08/11/21 12:08	II210809-1	1		.973	mg/L	97	90	110			
WG525059CCB1	CCB	08/11/21 12:11				U	mg/L		-0.18	0.18			
L67574-01LFMD	LFMD	08/11/21 12:14	II2XWATER	2.0022	251	261.4	mg/L	519	70	130	4	20	M3
WG525059CCV2	CCV	08/11/21 12:44	II210809-1	1		.975	mg/L	98	90	110			
WG525059CCB2	CCB	08/11/21 12:47				U	mg/L		-0.18	0.18			
WG525059CCV3	CCV	08/11/21 13:09	II210809-1	1		.967	mg/L	97	90	110			
WG525059CCB3	CCB	08/11/21 13:12				U	mg/L		-0.18	0.18			

Lead, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525250													
WG525250ICV	ICV	08/13/21 13:29	MS210727-2	.05		.05105	mg/L	102	90	110			
WG525250ICB	ICB	08/13/21 13:31				U	mg/L		-0.00022	0.00022			
L58831-66AS	AS	08/13/21 13:39	MS210727-5	.05005	U	.05269	mg/L	105	70	130			
L58831-66ASD	ASD	08/13/21 13:40	MS210727-5	.05005	U	.05364	mg/L	107	70	130	2	20	
WG525250CCV1	CCV	08/13/21 13:48	MS210806-2	.25025		.24961	mg/L	100	90	110			
WG525250CCB1	CCB	08/13/21 13:49				U	mg/L		-0.0003	0.0003			
L67580-03AS	AS	08/13/21 14:00	MS210727-5	.05005	U	.05169	mg/L	103	70	130			
L67580-03ASD	ASD	08/13/21 14:02	MS210727-5	.05005	U	.05271	mg/L	105	70	130	2	20	
WG525250CCV2	CCV	08/13/21 14:09	MS210806-2	.25025		.25004	mg/L	100	90	110			
WG525250CCB2	CCB	08/13/21 14:11				U	mg/L		-0.0003	0.0003			
WG525250LFB	LFB	08/13/21 14:22	MS210727-5	.05005		.05288	mg/L	106	85	115			
WG525250CCV3	CCV	08/13/21 14:24	MS210806-2	.25025		.25153	mg/L	101	90	110			
WG525250CCB3	CCB	08/13/21 14:26				U	mg/L		-0.0003	0.0003			

Lead, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525096													
WG525096ICV	ICV	08/11/21 16:21	MS210727-2	.05		.05047	mg/L	101	90	110			
WG525096ICB	ICB	08/11/21 16:22				.0001	mg/L		-0.0003	0.0003			
WG524960LRB	LRB	08/11/21 16:24				U	mg/L		-0.00022	0.00022			
WG524960LFB	LFB	08/11/21 16:26	MS210727-5	.05005		.04993	mg/L	100	85	115			
L67442-02LFM	LFM	08/11/21 16:32	MS210727-5	.05005	.00016	.05041	mg/L	100	70	130			
L67442-02LFMD	LFMD	08/11/21 16:33	MS210727-5	.05005	.00016	.05073	mg/L	101	70	130	1	20	
WG525096CCV1	CCV	08/11/21 16:39	MS210806-2	.25025		.25136	mg/L	100	90	110			
WG525096CCB1	CCB	08/11/21 16:41				U	mg/L		-0.0003	0.0003			
WG525096CCV2	CCV	08/11/21 17:01	MS210806-2	.25025		.25001	mg/L	100	90	110			
WG525096CCB2	CCB	08/11/21 17:02				.00014	mg/L		-0.0003	0.0003			
WG525096CCV3	CCV	08/11/21 17:19	MS210806-2	.25025		.25057	mg/L	100	90	110			
WG525096CCB3	CCB	08/11/21 17:21				U	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Magnesium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524577													
WG524577ICV	ICV	08/03/21 16:20	II210720-1	100		96.24	mg/L	96	95	105			
WG524577ICB	ICB	08/03/21 16:26				U	mg/L		-0.6	0.6			
WG524577PQV	PQV	08/03/21 16:29	II210707-2	1.0001		1.01	mg/L	101	70	130			
WG524577SIC	SIC	08/03/21 16:32	II210707-4	201.0201		204.6	mg/L	102	1	200			
WG524577LFB	LFB	08/03/21 16:39	II210714-2	50.00074		47.94	mg/L	96	85	115			
WG524577CCV1	CCV	08/03/21 17:11	II210720-2	50		46.94	mg/L	94	90	110			
WG524577CCB1	CCB	08/03/21 17:14				U	mg/L		-0.6	0.6			
WG524577CCV2	CCV	08/03/21 17:49	II210720-2	50		45.69	mg/L	91	90	110			
WG524577CCB2	CCB	08/03/21 17:53				U	mg/L		-0.6	0.6			
L67442-01AS	AS	08/03/21 17:59	II210714-2	50.00074	10.9	57.1	mg/L	92	85	115			
L67442-01ASD	ASD	08/03/21 18:02	II210714-2	50.00074	10.9	56.86	mg/L	92	85	115	0	20	
WG524577CCV3	CCV	08/03/21 18:12	II210720-2	50		46.2	mg/L	92	90	110			
WG524577CCB3	CCB	08/03/21 18:15				U	mg/L		-0.6	0.6			

Manganese, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524577													
WG524577ICV	ICV	08/03/21 16:20	II210720-1	2		1.953	mg/L	98	95	105			
WG524577ICB	ICB	08/03/21 16:26				U	mg/L		-0.03	0.03			
WG524577PQV	PQV	08/03/21 16:29	II210707-2	.05005		.05	mg/L	100	70	130			
WG524577SIC	SIC	08/03/21 16:32	II210707-4	50.10005		48.02	mg/L	96	1	200			
WG524577LFB	LFB	08/03/21 16:39	II210714-2	.5005		.497	mg/L	99	85	115			
WG524577CCV1	CCV	08/03/21 17:11	II210720-2	1		.971	mg/L	97	90	110			
WG524577CCB1	CCB	08/03/21 17:14				U	mg/L		-0.03	0.03			
WG524577CCV2	CCV	08/03/21 17:49	II210720-2	1		.94	mg/L	94	90	110			
WG524577CCB2	CCB	08/03/21 17:53				U	mg/L		-0.03	0.03			
L67442-01AS	AS	08/03/21 17:59	II210714-2	.5005	.02	.497	mg/L	95	85	115			
L67442-01ASD	ASD	08/03/21 18:02	II210714-2	.5005	.02	.491	mg/L	94	85	115	1	20	
WG524577CCV3	CCV	08/03/21 18:12	II210720-2	1		.956	mg/L	96	90	110			
WG524577CCB3	CCB	08/03/21 18:15				U	mg/L		-0.03	0.03			

Manganese, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525059													
WG525059ICV	ICV	08/11/21 11:19	II210801-1	2		1.915	mg/L	96	95	105			
WG525059ICB	ICB	08/11/21 11:25				U	mg/L		-0.03	0.03			
WG525059PQV	PQV	08/11/21 11:28	II210804-2	.05005		.046	mg/L	92	70	130			
WG525059SIC	SIC	08/11/21 11:31	II210809-2	50.10005		46.81	mg/L	93	1	200			
WG524983LRB	LRB	08/11/21 11:37				U	mg/L		-0.022	0.022			
WG524983LFB	LFB	08/11/21 11:40	II210810-2	.5005		.502	mg/L	100	85	115			
L67574-01LFM	LFM	08/11/21 12:05	II2XWATER	1	8.51	9.33	mg/L	82	70	130			
WG525059CCV1	CCV	08/11/21 12:08	II210809-1	1		.954	mg/L	95	90	110			
WG525059CCB1	CCB	08/11/21 12:11				U	mg/L		-0.03	0.03			
L67574-01LFMD	LFMD	08/11/21 12:14	II2XWATER	1	8.51	9.382	mg/L	87	70	130	1	20	
WG525059CCV2	CCV	08/11/21 12:44	II210809-1	1		.952	mg/L	95	90	110			
WG525059CCB2	CCB	08/11/21 12:47				U	mg/L		-0.03	0.03			
WG525059CCV3	CCV	08/11/21 13:09	II210809-1	1		.942	mg/L	94	90	110			
WG525059CCB3	CCB	08/11/21 13:12				U	mg/L		-0.03	0.03			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, dissolved

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524622													
WG524622ICV	ICV	08/04/21 13:08	HG210701-3	.00501		.00504	mg/L	101	95	105			
WG524622ICB	ICB	08/04/21 13:08				U	mg/L		-0.0002	0.0002			
WG524625													
WG524625CCV1	CCV	08/04/21 13:45	HG210701-3	.00501		.00525	mg/L	105	90	110			
WG524625CCB1	CCB	08/04/21 13:46				U	mg/L		-0.0002	0.0002			
WG524625PQV	PQV	08/04/21 13:47	HG210728-2	.001001		.00086	mg/L	86	70	130			
WG524625LRB	LRB	08/04/21 13:48				U	mg/L		-0.00044	0.00044			
WG524625LFB	LFB	08/04/21 13:49	HG210728-3	.002002		.00171	mg/L	85	85	115			
L67363-02LFM	LFM	08/04/21 13:51	HG210728-3	.002002	U	.00168	mg/L	84	85	115			M2
L67363-02LFMD	LFMD	08/04/21 13:52	HG210728-3	.002002	U	.00164	mg/L	82	85	115	2	20	M2
WG524625CCV2	CCV	08/04/21 13:56	HG210701-3	.00501		.00486	mg/L	97	90	110			
WG524625CCB2	CCB	08/04/21 13:57				U	mg/L		-0.0002	0.0002			
L67442-03LFM	LFM	08/04/21 14:05	HG210728-3	.002002	U	.00168	mg/L	84	85	115			MA
L67442-03LFMD	LFMD	08/04/21 14:06	HG210728-3	.002002	U	.00171	mg/L	85	85	115	2	20	
WG524625CCV3	CCV	08/04/21 14:08	HG210701-3	.00501		.00474	mg/L	95	90	110			
WG524625CCB3	CCB	08/04/21 14:09				U	mg/L		-0.0002	0.0002			
WG524625CCV4	CCV	08/04/21 14:14	HG210701-3	.00501		.00478	mg/L	95	90	110			
WG524625CCB4	CCB	08/04/21 14:15				U	mg/L		-0.0002	0.0002			

Mercury, total

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524622													
WG524622ICV	ICV	08/04/21 13:08	HG210701-3	.00501		.00504	mg/L	101	95	105			
WG524622ICB	ICB	08/04/21 13:08				U	mg/L		-0.0002	0.0002			
WG524627													
WG524627CCV1	CCV	08/04/21 14:22	HG210701-3	.00501		.00533	mg/L	106	90	110			
WG524627CCB1	CCB	08/04/21 14:23				U	mg/L		-0.0002	0.0002			
WG524627PQV	PQV	08/04/21 14:24	HG210728-2	.001001		.00088	mg/L	88	70	130			
WG524627LRB	LRB	08/04/21 14:25				U	mg/L		-0.00044	0.00044			
L67355-06LFM	LFM	08/04/21 14:27	HG210728-3	.002002	U	.0017	mg/L	85	85	115			
L67355-06LFMD	LFMD	08/04/21 14:28	HG210728-3	.002002	U	.00167	mg/L	83	85	115	2	20	MA
WG524627CCV2	CCV	08/04/21 14:33	HG210701-3	.00501		.00499	mg/L	100	90	110			
WG524627CCB2	CCB	08/04/21 14:34				U	mg/L		-0.0002	0.0002			
WG524627CCV3	CCV	08/04/21 14:39	HG210701-3	.00501		.005	mg/L	100	90	110			
WG524627CCB3	CCB	08/04/21 14:40				U	mg/L		-0.0002	0.0002			
WG524627LFB	LFB	08/04/21 14:42	HG210728-3	.002002		.00172	mg/L	86	85	115			
WG524627CCV4	CCV	08/04/21 14:43	HG210701-3	.00501		.00494	mg/L	99	90	110			
WG524627CCB4	CCB	08/04/21 14:44				U	mg/L		-0.0002	0.0002			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Molybdenum, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525250													
WG525250ICV	ICV	08/13/21 13:29	MS210727-2	.01992		.0203	mg/L	102	90	110			
WG525250ICB	ICB	08/13/21 13:31				U	mg/L		-0.00044	0.00044			
L58831-66AS	AS	08/13/21 13:39	MS210727-5	.0501	.00441	.05586	mg/L	103	70	130			
L58831-66ASD	ASD	08/13/21 13:40	MS210727-5	.0501	.00441	.05681	mg/L	105	70	130	2	20	
WG525250CCV1	CCV	08/13/21 13:48	MS210806-2	.1002		.09796	mg/L	98	90	110			
WG525250CCB1	CCB	08/13/21 13:49				U	mg/L		-0.0006	0.0006			
L67580-03AS	AS	08/13/21 14:00	MS210727-5	.0501	.192	.23898	mg/L	94	70	130			
L67580-03ASD	ASD	08/13/21 14:02	MS210727-5	.0501	.192	.24241	mg/L	101	70	130	1	20	
WG525250CCV2	CCV	08/13/21 14:09	MS210806-2	.1002		.09852	mg/L	98	90	110			
WG525250CCB2	CCB	08/13/21 14:11				U	mg/L		-0.0006	0.0006			
WG525250LFB	LFB	08/13/21 14:22	MS210727-5	.0501		.05165	mg/L	103	85	115			
WG525250CCV3	CCV	08/13/21 14:24	MS210806-2	.1002		.0997	mg/L	100	90	110			
WG525250CCB3	CCB	08/13/21 14:26				U	mg/L		-0.0006	0.0006			

Molybdenum, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525096													
WG525096ICV	ICV	08/11/21 16:21	MS210727-2	.01992		.01964	mg/L	99	90	110			
WG525096ICB	ICB	08/11/21 16:22				U	mg/L		-0.0006	0.0006			
WG524960LRB	LRB	08/11/21 16:24				U	mg/L		-0.00044	0.00044			
WG524960LFB	LFB	08/11/21 16:26	MS210727-5	.0501		.04918	mg/L	98	85	115			
L67442-02LFM	LFM	08/11/21 16:32	MS210727-5	.0501	.0925	.14027	mg/L	95	70	130			
L67442-02LFMD	LFMD	08/11/21 16:33	MS210727-5	.0501	.0925	.14147	mg/L	98	70	130	1	20	
WG525096CCV1	CCV	08/11/21 16:39	MS210806-2	.1002		.09957	mg/L	99	90	110			
WG525096CCB1	CCB	08/11/21 16:41				U	mg/L		-0.0006	0.0006			

Nitrate/Nitrite as N

M353.2 - H2SO4 preserved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525275													
WG525275ICV	ICV	08/13/21 23:26	WI210603-7	2.416		2.41	mg/L	100	90	110			
WG525275ICB	ICB	08/13/21 23:27				U	mg/L		-0.02	0.02			
WG525277													
WG525277CCV1	CCV	08/14/21 1:00	WI210812-1	2		1.997	mg/L	100	90	110			
WG525277CCB1	CCB	08/14/21 1:03				U	mg/L		-0.02	0.02			
WG525277LFB	LFB	08/14/21 1:05	WI210331-13	2		2.008	mg/L	100	90	110			
WG525277CCV2	CCV	08/14/21 1:17	WI210812-1	2		1.985	mg/L	99	90	110			
WG525277CCB2	CCB	08/14/21 1:20				U	mg/L		-0.02	0.02			
L67439-01AS	AS	08/14/21 1:27	WI210331-13	2	1.96	3.965	mg/L	100	90	110			
L67439-02DUP	DUP	08/14/21 1:29			U	U	mg/L				0	20	RA
WG525277CCV3	CCV	08/14/21 1:34	WI210812-1	2		1.977	mg/L	99	90	110			
WG525277CCB3	CCB	08/14/21 1:37				U	mg/L		-0.02	0.02			
WG525277CCV4	CCV	08/14/21 1:50	WI210812-1	2		1.971	mg/L	99	90	110			
WG525277CCB4	CCB	08/14/21 1:53				U	mg/L		-0.02	0.02			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Phosphorus, total M365.1 - Auto Ascorbic Acid (digest)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524824													
WG524824ICV	ICV	08/06/21 12:44	WI210805-5	.65228		.664	mg/L	102	90	110			
WG524824ICB	ICB	08/06/21 12:46				U	mg/L		-0.01	0.01			
WG524646LRB	LRB	08/06/21 12:47				U	mg/L		-0.01	0.01			
WG524646LFB	LFB	08/06/21 12:49	WI210729-2	.5		.461	mg/L	92	90	110			
L67442-01LFM	LFM	08/06/21 12:51	WI210729-2	.5	U	.463	mg/L	93	90	110			
L67442-02DUP	DUP	08/06/21 12:53			U	U	mg/L				0	20	RA
WG524824CCV1	CCV	08/06/21 12:58	WI210805-4	.5		.476	mg/L	95	90	110			
WG524824CCB1	CCB	08/06/21 12:59				U	mg/L		-0.01	0.01			
WG524824CCV2	CCV	08/06/21 13:11	WI210805-4	.5		.474	mg/L	95	90	110			
WG524824CCB2	CCB	08/06/21 13:13				U	mg/L		-0.01	0.01			
WG524824CCV3	CCV	08/06/21 13:25	WI210805-4	.5		.458	mg/L	92	90	110			
WG524824CCB3	CCB	08/06/21 13:27				U	mg/L		-0.01	0.01			
WG524824CCV4	CCV	08/06/21 13:37	WI210805-4	.5		.521	mg/L	104	90	110			
WG524824CCB4	CCB	08/06/21 13:39				U	mg/L		-0.01	0.01			
WG524824CCV5	CCV	08/06/21 13:43	WI210805-4	.5		.524	mg/L	105	90	110			
WG524824CCB5	CCB	08/06/21 13:44				U	mg/L		-0.01	0.01			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524577													
WG524577ICV	ICV	08/03/21 16:20	II210720-1	20		19.7	mg/L	99	95	105			
WG524577ICB	ICB	08/03/21 16:26				U	mg/L		-0.6	0.6			
WG524577PQV	PQV	08/03/21 16:29	II210707-2	1.004		.96	mg/L	96	70	130			
WG524577SIC	SIC	08/03/21 16:32	II210707-4	1.004		.99	mg/L	99	80	120			
WG524577LFB	LFB	08/03/21 16:39	II210714-2	99.99574		97.57	mg/L	98	85	115			
WG524577CCV1	CCV	08/03/21 17:11	II210720-2	10		9.7	mg/L	97	90	110			
WG524577CCB1	CCB	08/03/21 17:14				U	mg/L		-0.6	0.6			
WG524577CCV2	CCV	08/03/21 17:49	II210720-2	10		9.47	mg/L	95	90	110			
WG524577CCB2	CCB	08/03/21 17:53				U	mg/L		-0.6	0.6			
L67442-01AS	AS	08/03/21 17:59	II210714-2	99.99574	7.56	103.8	mg/L	96	85	115			
L67442-01ASD	ASD	08/03/21 18:02	II210714-2	99.99574	7.56	103.1	mg/L	96	85	115	1	20	
WG524577CCV3	CCV	08/03/21 18:12	II210720-2	10		9.61	mg/L	96	90	110			
WG524577CCB3	CCB	08/03/21 18:15				U	mg/L		-0.6	0.6			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524468													
WG524468PBW	PBW	08/02/21 11:35				U	mg/L		-20	20			
WG524468LCSW	LCSW	08/02/21 11:37	PCN63562	1000		982	mg/L	98	80	120			
L67422-01DUP	DUP	08/02/21 11:42			42	42	mg/L				0	10	RA
WG524849													
WG524849PBW	PBW	08/06/21 17:40				U	mg/L		-20	20			
WG524849LCSW	LCSW	08/06/21 17:42	PCN63559	1000		994	mg/L	99	80	120			
L67590-02DUP	DUP	08/06/21 18:11			1050	1044	mg/L				1	10	

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Residue, Non-Filterable (TSS) @105C SM2540D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524340													
WG524340PBW	PBW	07/29/21 19:30				U	mg/L		-2	2			
WG524340LCSW	LCSW	07/29/21 19:32	PCN63562	100		98	mg/L	98	80	120			
L67442-01DUP	DUP	07/29/21 20:19			U	U	mg/L				0	10	RA
WG524488													
WG524488PBW	PBW	08/02/21 13:10				U	mg/L		-5	5			
WG524488LCSW	LCSW	08/02/21 13:11	PCN63562	100		96	mg/L	96	80	120			
L67404-01DUP	DUP	08/02/21 13:14			529	549	mg/L				4	10	

Selenium, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525250													
WG525250ICV	ICV	08/13/21 13:29	MS210727-2	.05		.0499	mg/L	100	90	110			
WG525250ICB	ICB	08/13/21 13:31				.0002	mg/L		-0.00022	0.00022			
L58831-66AS	AS	08/13/21 13:39	MS210727-5	.05	.0002	.05253	mg/L	105	70	130			
L58831-66ASD	ASD	08/13/21 13:40	MS210727-5	.05	.0002	.05377	mg/L	107	70	130	2	20	
WG525250CCV1	CCV	08/13/21 13:48	MS210806-2	.25		.25336	mg/L	101	90	110			
WG525250CCB1	CCB	08/13/21 13:49				.00012	mg/L		-0.0003	0.0003			
L67580-03AS	AS	08/13/21 14:00	MS210727-5	.05	.00012	.05139	mg/L	103	70	130			
L67580-03ASD	ASD	08/13/21 14:02	MS210727-5	.05	.00012	.05206	mg/L	104	70	130	1	20	
WG525250CCV2	CCV	08/13/21 14:09	MS210806-2	.25		.25073	mg/L	100	90	110			
WG525250CCB2	CCB	08/13/21 14:11				.00011	mg/L		-0.0003	0.0003			
WG525250LFB	LFB	08/13/21 14:22	MS210727-5	.05		.05098	mg/L	102	85	115			
WG525250CCV3	CCV	08/13/21 14:24	MS210806-2	.25		.24928	mg/L	100	90	110			
WG525250CCB3	CCB	08/13/21 14:26				.00018	mg/L		-0.0003	0.0003			
WG525250CCV4	CCV	08/13/21 14:31	MS210806-2	.25		.2563	mg/L	103	90	110			
WG525250CCB4	CCB	08/13/21 14:33				.00013	mg/L		-0.0003	0.0003			

Selenium, total M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525096													
WG525096ICV	ICV	08/11/21 16:21	MS210727-2	.05		.04952	mg/L	99	90	110			
WG525096ICB	ICB	08/11/21 16:22				.00018	mg/L		-0.0003	0.0003			
WG524960LRB	LRB	08/11/21 16:24				U	mg/L		-0.00022	0.00022			
WG524960LFB	LFB	08/11/21 16:26	MS210727-5	.05		.0493	mg/L	99	85	115			
L67442-02LFM	LFM	08/11/21 16:32	MS210727-5	.05	U	.04971	mg/L	99	70	130			
L67442-02LFMD	LFMD	08/11/21 16:33	MS210727-5	.05	U	.05018	mg/L	100	70	130	1	20	
WG525096CCV1	CCV	08/11/21 16:39	MS210806-2	.25		.25011	mg/L	100	90	110			
WG525096CCB1	CCB	08/11/21 16:41				.0001	mg/L		-0.0003	0.0003			
WG525096CCV2	CCV	08/11/21 17:01	MS210806-2	.25		.25077	mg/L	100	90	110			
WG525096CCB2	CCB	08/11/21 17:02				.00014	mg/L		-0.0003	0.0003			
WG525096CCV3	CCV	08/11/21 17:19	MS210806-2	.25		.25069	mg/L	100	90	110			
WG525096CCB3	CCB	08/11/21 17:21				U	mg/L		-0.0003	0.0003			

Ensero Solutions

ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Silver, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525250													
WG525250ICV	ICV	08/13/21 13:29	MS210727-2	.02		.01999	mg/L	100	90	110			
WG525250ICB	ICB	08/13/21 13:31				U	mg/L		-0.00022	0.00022			
L58831-66AS	AS	08/13/21 13:39	MS210727-5	.01002	U	.01033	mg/L	103	70	130			
L58831-66ASD	ASD	08/13/21 13:40	MS210727-5	.01002	U	.01051	mg/L	105	70	130	2	20	
WG525250CCV1	CCV	08/13/21 13:48	MS210806-2	.02505		.02446	mg/L	98	90	110			
WG525250CCB1	CCB	08/13/21 13:49				U	mg/L		-0.0003	0.0003			
L67580-03AS	AS	08/13/21 14:00	MS210727-5	.01002	U	.00993	mg/L	99	70	130			
L67580-03ASD	ASD	08/13/21 14:02	MS210727-5	.01002	U	.01009	mg/L	101	70	130	2	20	
WG525250CCV2	CCV	08/13/21 14:09	MS210806-2	.02505		.0248	mg/L	99	90	110			
WG525250CCB2	CCB	08/13/21 14:11				U	mg/L		-0.0003	0.0003			
WG525250LFB	LFB	08/13/21 14:22	MS210727-5	.01002		.01061	mg/L	106	85	115			
WG525250CCV3	CCV	08/13/21 14:24	MS210806-2	.02505		.02537	mg/L	101	90	110			
WG525250CCB3	CCB	08/13/21 14:26				U	mg/L		-0.0003	0.0003			
WG525250CCV4	CCV	08/13/21 14:31	MS210806-2	.02505		.02499	mg/L	100	90	110			
WG525250CCB4	CCB	08/13/21 14:33				U	mg/L		-0.0003	0.0003			

Silver, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525096													
WG525096ICV	ICV	08/11/21 16:21	MS210727-2	.02		.01946	mg/L	97	90	110			
WG525096ICB	ICB	08/11/21 16:22				U	mg/L		-0.0003	0.0003			
WG524960LRB	LRB	08/11/21 16:24				U	mg/L		-0.00022	0.00022			
WG524960LFB	LFB	08/11/21 16:26	MS210727-5	.01002		.01021	mg/L	102	85	115			
L67442-02LFM	LFM	08/11/21 16:32	MS210727-5	.01002	U	.00994	mg/L	99	70	130			
L67442-02LFMD	LFMD	08/11/21 16:33	MS210727-5	.01002	U	.00996	mg/L	99	70	130	0	20	
WG525096CCV1	CCV	08/11/21 16:39	MS210806-2	.02505		.02487	mg/L	99	90	110			
WG525096CCB1	CCB	08/11/21 16:41				U	mg/L		-0.0003	0.0003			
WG525096CCV2	CCV	08/11/21 17:01	MS210806-2	.02505		.02433	mg/L	97	90	110			
WG525096CCB2	CCB	08/11/21 17:02				U	mg/L		-0.0003	0.0003			
WG525096CCV3	CCV	08/11/21 17:19	MS210806-2	.02505		.02456	mg/L	98	90	110			
WG525096CCB3	CCB	08/11/21 17:21				U	mg/L		-0.0003	0.0003			

Sodium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524577													
WG524577ICV	ICV	08/03/21 16:20	II210720-1	100		99.63	mg/L	100	95	105			
WG524577ICB	ICB	08/03/21 16:26				U	mg/L		-0.6	0.6			
WG524577PQV	PQV	08/03/21 16:29	II210707-2	1.0053		.97	mg/L	96	70	130			
WG524577SIC	SIC	08/03/21 16:32	II210707-4	1.0053		1.1	mg/L	109	80	120			
WG524577LFB	LFB	08/03/21 16:39	II210714-2	100.0109		98.65	mg/L	99	85	115			
WG524577CCV1	CCV	08/03/21 17:11	II210720-2	50		49.32	mg/L	99	90	110			
WG524577CCB1	CCB	08/03/21 17:14				U	mg/L		-0.6	0.6			
WG524577CCV2	CCV	08/03/21 17:49	II210720-2	50		48.34	mg/L	97	90	110			
WG524577CCB2	CCB	08/03/21 17:53				U	mg/L		-0.6	0.6			
L67442-01AS	AS	08/03/21 17:59	II210714-2	100.0109	202	283.9	mg/L	82	85	115			M2
L67442-01ASD	ASD	08/03/21 18:02	II210714-2	100.0109	202	286.4	mg/L	84	85	115	1	20	M2
WG524577CCV3	CCV	08/03/21 18:12	II210720-2	50		48.76	mg/L	98	90	110			
WG524577CCB3	CCB	08/03/21 18:15				U	mg/L		-0.6	0.6			

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ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sulfate

D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525720													
WG525720ICB	ICB	08/21/21 9:52				1.4	mg/L		-3	3			
WG525720ICV	ICV	08/21/21 9:52	WI210818-1	20.46		19.5	mg/L	95	90	110			
WG525720CCV1	CCV	08/21/21 11:02	WI210818-2	25		24.7	mg/L	99	90	110			
WG525720CCB1	CCB	08/21/21 11:02				U	mg/L		-3	3			
WG525720LFB	LFB	08/21/21 11:02	WI210105-3	10		10.3	mg/L	103	90	110			
L67439-02AS	AS	08/21/21 11:02	WI210105-3	10	3.8	11.5	mg/L	77	90	110			M3
WG525720CCV2	CCV	08/21/21 11:05	WI210818-2	25		24	mg/L	96	90	110			
WG525720CCB2	CCB	08/21/21 11:05				U	mg/L		-3	3			
WG525720CCV3	CCV	08/21/21 11:06	WI210818-2	25		24.2	mg/L	97	90	110			
WG525720CCB3	CCB	08/21/21 11:06				U	mg/L		-3	3			
WG525720CCV4	CCV	08/21/21 11:08	WI210818-2	25		24.2	mg/L	97	90	110			
WG525720CCB4	CCB	08/21/21 11:08				U	mg/L		-3	3			
WG525720CCV5	CCV	08/21/21 11:10	WI210818-2	25		24	mg/L	96	90	110			
WG525720CCB5	CCB	08/21/21 11:10				U	mg/L		-3	3			
WG525720CCV6	CCV	08/21/21 11:38	WI210818-2	25		24	mg/L	96	90	110			
WG525720CCB6	CCB	08/21/21 11:38				U	mg/L		-3	3			
WG525720CCV7	CCV	08/21/21 11:41	WI210818-2	25		23.9	mg/L	96	90	110			
WG525720CCB7	CCB	08/21/21 11:41				U	mg/L		-3	3			
WG525720CCV8	CCV	08/21/21 11:43	WI210818-2	25		23.8	mg/L	95	90	110			
WG525720CCB8	CCB	08/21/21 11:43				U	mg/L		-3	3			
WG525720CCV9	CCV	08/21/21 12:20	WI210818-2	25		24.1	mg/L	96	90	110			
WG525720CCB9	CCB	08/21/21 12:20				U	mg/L		-3	3			
L67439-01DUP	DUP	08/21/21 12:20			974	969.1	mg/L				1	20	
WG525720CCV10	CCV	08/21/21 12:22	WI210818-2	25		24	mg/L	96	90	110			
WG525720CCB10	CCB	08/21/21 12:22				U	mg/L		-3	3			
WG525720CCV11	CCV	08/21/21 12:54	WI210818-2	25		23.8	mg/L	95	90	110			
WG525720CCB11	CCB	08/21/21 12:54				U	mg/L		-3	3			
WG525720CCV12	CCV	08/21/21 12:56	WI210818-2	25		23.9	mg/L	96	90	110			
WG525720CCB12	CCB	08/21/21 12:56				U	mg/L		-3	3			
WG525720CCB13	CCB	08/21/21 14:30				U	mg/L		-3	3			
WG525720CCV13	CCV	08/21/21 14:30	WI210818-2	25		23.8	mg/L	95	90	110			
WG525720CCB14	CCB	08/21/21 14:30				U	mg/L		-3	3			

Thallium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525250													
WG525250ICV	ICV	08/13/21 13:29	MS210727-2	.05		.0512	mg/L	102	90	110			
WG525250ICB	ICB	08/13/21 13:31				U	mg/L		-0.00022	0.00022			
L58831-66AS	AS	08/13/21 13:39	MS210727-5	.05	U	.05224	mg/L	104	70	130			
L58831-66ASD	ASD	08/13/21 13:40	MS210727-5	.05	U	.05284	mg/L	106	70	130	1	20	
WG525250CCV1	CCV	08/13/21 13:48	MS210806-2	.1		.10036	mg/L	100	90	110			
WG525250CCB1	CCB	08/13/21 13:49				U	mg/L		-0.0003	0.0003			
L67580-03AS	AS	08/13/21 14:00	MS210727-5	.05	U	.05127	mg/L	103	70	130			
L67580-03ASD	ASD	08/13/21 14:02	MS210727-5	.05	U	.05259	mg/L	105	70	130	3	20	
WG525250CCV2	CCV	08/13/21 14:09	MS210806-2	.1		.10057	mg/L	101	90	110			
WG525250CCB2	CCB	08/13/21 14:11				U	mg/L		-0.0003	0.0003			
WG525250LFB	LFB	08/13/21 14:22	MS210727-5	.05		.05229	mg/L	105	85	115			
WG525250CCV3	CCV	08/13/21 14:24	MS210806-2	.1		.10099	mg/L	101	90	110			
WG525250CCB3	CCB	08/13/21 14:26				U	mg/L		-0.0003	0.0003			

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ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Thallium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525096													
WG525096ICV	ICV	08/11/21 16:21	MS210727-2	.05		.05133	mg/L	103	90	110			
WG525096ICB	ICB	08/11/21 16:22				U	mg/L		-0.0003	0.0003			
WG524960LRB	LRB	08/11/21 16:24				U	mg/L		-0.00022	0.00022			
WG524960LFB	LFB	08/11/21 16:26	MS210727-5	.05		.04956	mg/L	99	85	115			
L67442-02LFM	LFM	08/11/21 16:32	MS210727-5	.05	U	.05053	mg/L	101	70	130			
L67442-02LFMD	LFMD	08/11/21 16:33	MS210727-5	.05	U	.05075	mg/L	102	70	130	0	20	
WG525096CCV1	CCV	08/11/21 16:39	MS210806-2	.1		.10206	mg/L	102	90	110			
WG525096CCB1	CCB	08/11/21 16:41				U	mg/L		-0.0003	0.0003			
WG525096CCV2	CCV	08/11/21 17:01	MS210806-2	.1		.10112	mg/L	101	90	110			
WG525096CCB2	CCB	08/11/21 17:02				U	mg/L		-0.0003	0.0003			
WG525096CCV3	CCV	08/11/21 17:19	MS210806-2	.1		.10119	mg/L	101	90	110			
WG525096CCB3	CCB	08/11/21 17:21				U	mg/L		-0.0003	0.0003			

Uranium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525250													
WG525250ICV	ICV	08/13/21 13:29	MS210727-2	.05		.05028	mg/L	101	90	110			
WG525250ICB	ICB	08/13/21 13:31				U	mg/L		-0.00022	0.00022			
L58831-66AS	AS	08/13/21 13:39	MS210727-5	.05	U	.05185	mg/L	104	70	130			
L58831-66ASD	ASD	08/13/21 13:40	MS210727-5	.05	U	.05301	mg/L	106	70	130	2	20	
WG525250CCV1	CCV	08/13/21 13:48	MS210806-2	.1		.10027	mg/L	100	90	110			
WG525250CCB1	CCB	08/13/21 13:49				U	mg/L		-0.0003	0.0003			
L67580-03AS	AS	08/13/21 14:00	MS210727-5	.05	.00316	.05477	mg/L	103	70	130			
L67580-03ASD	ASD	08/13/21 14:02	MS210727-5	.05	.00316	.05532	mg/L	104	70	130	1	20	
WG525250CCV2	CCV	08/13/21 14:09	MS210806-2	.1		.09995	mg/L	100	90	110			
WG525250CCB2	CCB	08/13/21 14:11				U	mg/L		-0.0003	0.0003			
WG525250LFB	LFB	08/13/21 14:22	MS210727-5	.05		.05168	mg/L	103	85	115			
WG525250CCV3	CCV	08/13/21 14:24	MS210806-2	.1		.10039	mg/L	100	90	110			
WG525250CCB3	CCB	08/13/21 14:26				U	mg/L		-0.0003	0.0003			

Uranium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525096													
WG525096ICV	ICV	08/11/21 16:21	MS210727-2	.05		.05034	mg/L	101	90	110			
WG525096ICB	ICB	08/11/21 16:22				U	mg/L		-0.0003	0.0003			
WG524960LRB	LRB	08/11/21 16:24				U	mg/L		-0.00022	0.00022			
WG524960LFB	LFB	08/11/21 16:26	MS210727-5	.05		.04991	mg/L	100	85	115			
L67442-02LFM	LFM	08/11/21 16:32	MS210727-5	.05	.0269	.07828	mg/L	103	70	130			
L67442-02LFMD	LFMD	08/11/21 16:33	MS210727-5	.05	.0269	.07859	mg/L	103	70	130	0	20	
WG525096CCV1	CCV	08/11/21 16:39	MS210806-2	.1		.10065	mg/L	101	90	110			
WG525096CCB1	CCB	08/11/21 16:41				U	mg/L		-0.0003	0.0003			
WG525096CCV2	CCV	08/11/21 17:01	MS210806-2	.1		.10098	mg/L	101	90	110			
WG525096CCB2	CCB	08/11/21 17:02				U	mg/L		-0.0003	0.0003			
WG525096CCV3	CCV	08/11/21 17:19	MS210806-2	.1		.1011	mg/L	101	90	110			
WG525096CCB3	CCB	08/11/21 17:21				U	mg/L		-0.0003	0.0003			

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ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Zinc, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524577													
WG524577ICV	ICV	08/03/21 16:20	II210720-1	2		1.967	mg/L	98	95	105			
WG524577ICB	ICB	08/03/21 16:26				U	mg/L		-0.06	0.06			
WG524577PQV	PQV	08/03/21 16:29	II210707-2	.05015		.051	mg/L	102	70	130			
WG524577SIC	SIC	08/03/21 16:32	II210707-4	.1003		.1	mg/L	100	80	120			
WG524577LFB	LFB	08/03/21 16:39	II210714-2	.50045		.508	mg/L	102	85	115			
WG524577CCV1	CCV	08/03/21 17:11	II210720-2	1		.959	mg/L	96	90	110			
WG524577CCB1	CCB	08/03/21 17:14				U	mg/L		-0.06	0.06			
WG524577CCV2	CCV	08/03/21 17:49	II210720-2	1		.935	mg/L	94	90	110			
WG524577CCB2	CCB	08/03/21 17:53				U	mg/L		-0.06	0.06			
L67442-01AS	AS	08/03/21 17:59	II210714-2	.50045	U	.52	mg/L	104	85	115			
L67442-01ASD	ASD	08/03/21 18:02	II210714-2	.50045	U	.504	mg/L	101	85	115	3	20	
WG524577CCV3	CCV	08/03/21 18:12	II210720-2	1		.951	mg/L	95	90	110			
WG524577CCB3	CCB	08/03/21 18:15				U	mg/L		-0.06	0.06			

Zinc, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525059													
WG525059ICV	ICV	08/11/21 11:19	II210801-1	2		1.911	mg/L	96	95	105			
WG525059ICB	ICB	08/11/21 11:25				U	mg/L		-0.06	0.06			
WG525059PQV	PQV	08/11/21 11:28	II210804-2	.05015		.053	mg/L	106	70	130			
WG525059SIC	SIC	08/11/21 11:31	II210809-2	.1003		.11	mg/L	110	80	120			
WG524983LRB	LRB	08/11/21 11:37				U	mg/L		-0.044	0.044			
WG524983LFB	LFB	08/11/21 11:40	II210810-2	.50045		.533	mg/L	107	85	115			
L67574-01LFM	LFM	08/11/21 12:05	II2XWATER	.9884	1.01	2.032	mg/L	103	70	130			
WG525059CCV1	CCV	08/11/21 12:08	II210809-1	1		.953	mg/L	95	90	110			
WG525059CCB1	CCB	08/11/21 12:11				U	mg/L		-0.06	0.06			
L67574-01LFMD	LFMD	08/11/21 12:14	II2XWATER	.9884	1.01	2.048	mg/L	105	70	130	1	20	
WG525059CCV2	CCV	08/11/21 12:44	II210809-1	1		.946	mg/L	95	90	110			
WG525059CCB2	CCB	08/11/21 12:47				U	mg/L		-0.06	0.06			
WG525059CCV3	CCV	08/11/21 13:09	II210809-1	1		.931	mg/L	93	90	110			
WG525059CCB3	CCB	08/11/21 13:12				U	mg/L		-0.06	0.06			

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ACZ Project ID: **L67442**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67442-01	WG525059	Aluminum, total	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524825	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG525059	Iron, total	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524625	Mercury, dissolved	M245.1 CVAA	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524627	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG525277	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524824	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524468	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524340	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG524577	Sodium, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG525720	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

Ensero Solutions

ACZ Project ID: **L67442**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67442-02	WG525059	Aluminum, total	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524825	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG525059	Iron, total	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524625	Mercury, dissolved	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG524627	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG525277	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524824	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524468	Residue, Filterable (TDS) @180C	SM2540C	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524488	Residue, Non-Filterable (TSS) @105C	SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG524577	Sodium, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG525720	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

Ensero Solutions

ACZ Project ID: **L67442**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67442-03	WG525059	Aluminum, total	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524965	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG525059	Iron, total	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG524625	Mercury, dissolved	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG524627	Mercury, total	M245.1 CVAA	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
	WG525277	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524824	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG524849	Residue, Filterable (TDS) @180C	SM2540C	H2	Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
			SM2540C	N1	See Case Narrative.
	WG524488	Residue, Non-Filterable (TSS) @105C	SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG524577	Sodium, dissolved	M200.7 ICP	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG525720	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-15

Locator:

ACZ Sample ID: **L67442-01**

Date Sampled: 07/27/21 10:46

Date Received: 07/29/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/24/21 15:21		43			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/12/21 0:08		110	12	8.7	pCi/L		ess
Gross Beta	08/12/21 0:08		36	4.4	5.4	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/17/21 0:28		36	0.82	0.25	pCi/L		djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/17/21 0:27		43	0.89	0.08	pCi/L		djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/17/21 13:31		1.1	0.87	2.1	pCi/L	*	cer

Ensero Solutions

Project ID: 3100-PO205

Sample ID: MW-13

Locator:

ACZ Sample ID: **L67442-02**

Date Sampled: 07/27/21 13:54

Date Received: 07/29/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/24/21 15:21		0.39			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/12/21 0:10		26	5.4	6.7	pCi/L		ess
Gross Beta	08/12/21 0:10		10	3.4	8.3	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/17/21 0:31		0.29	0.1	0.09	pCi/L		djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/17/21 0:30		0.39	0.2	0.32	pCi/L	*	djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/17/21 13:31		0.66	0.93	2.1	pCi/L	*	cer

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Project ID: 3100-PO205

Sample ID: MW-14

Locator:

ACZ Sample ID: **L67442-03**

Date Sampled: 07/27/21 15:44

Date Received: 07/29/21

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	08/24/21 15:21		0			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	08/12/21 0:11		2.7	1.9	15	pCi/L		ess
Gross Beta	08/12/21 0:11		4.6	2.9	17	pCi/L	*	ess

Radium 226, dissolved

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, dissolved	08/17/21 0:34		0.13	0.06	0.06	pCi/L		djc

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	08/17/21 0:33		0.2	0.18	0.22	pCi/L		djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	08/17/21 13:31		-0.28	0.94	2.1	pCi/L	*	cer

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.
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Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

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ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alpha		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG525106																
WG525106PBW	PBW	08/12/21						.59	1.2	4.8			9.6			
WG525106LCSWA	LCSW	08/12/21	PCN62436	100				100	8.5	3.7	100	67	144			
L67391-02DUP	DUP-RPD	08/12/21			9.7	3.7	18	11	3.8	19				13	20	
L67454-02MSA	MS	08/12/21	PCN62436	100	4.1	2.5	19	110	10	7.9	106	67	144			
L67644-03DUP	DUP-RPD	08/12/21			180	16	7.3	200	16	9				11	20	
Beta		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG525106																
WG525106PBW	PBW	08/12/21						4.3	2.7	6.6			13.2			
WG525106LCSWB	LCSW	08/12/21	RC210621-11	49.9				50	4.8	11	100	82	122			
L67391-02DUP	DUP-RPD	08/12/21			8.4	3.2	18	4.8	2.8	19				55	20	RG
L67391-02DUP	DUP-RER	08/12/21			8.4	3.2	18	4.8	2.8	19				0.85	2	
L67644-03DUP	DUP-RPD	08/12/21			69	5.6	9.5	77	5.9	6.9				11	20	
L67644-03MSB	MS	08/12/21	RC210621-11	49.9	69	5.6	9.5	95	6.5	8.6	52	82	122			M2
Radium 226, dissolved		M903.1										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG525126																
WG525126PBW	PBW	08/17/21						.14	0.13	0.13			0.26			
WG525126LCSW	LCSW	08/17/21	PCN62879	20				25	0.77	0.18	125	43	148			
L67316-01DUP	DUP-RPD	08/17/21			2.8	0.27	0.23	3.2	0.36	0.18				13	20	
L67363-02MS	MS	08/17/21	PCN62879	40	11	0.46	0.17	52	1.3	0.21	103	43	148			
L67417-02DUP	DUP-RPD	08/17/21			6.2	0.34	0.08	7.2	0.53	0.18				15	20	

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ACZ Project ID: **L67442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Radium 228, total

M904.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524988																
L67260-03DUP	DUP-RER	08/16/21			0.2	0.72	1.8	.95	0.7	1.7				0.75	2	
WG524988LCSW	LCSW	08/16/21	PCN63356	9.55				8.2	1	1.8	86	47	123			
WG524988PBW	PBW	08/16/21						.04	0.7	1.8			3.6			
L67260-03DUP	DUP-RPD	08/16/21			0.2	0.72	1.8	.95	0.7	1.7				130	20	RG
L67442-02MS	MS	08/17/21	PCN63356	19.09	0.66	0.93	2.1	17	2.5	4.3	86	47	123			
L67442-03DUP	DUP-RPD	08/17/21			-0.28	0.94	2.1	.51	1.3	3.3				687	20	RG
L67442-03DUP	DUP-RER	08/17/21			-0.28	0.94	2.1	.51	1.3	3.3				0.49	2	

Ensero Solutions

ACZ Project ID: **L67442**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67442-01	WG525106	Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L67442-02	WG525106	Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG525126	Radium 226, total	M903.1	DJ	Sample dilution required due to insufficient sample.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L67442-03	WG525106	Gross Beta	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG524988	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

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ACZ Project ID: **L67442**

No certification qualifiers associated with this analysis

Ensero Solutions
3100-PO205

ACZ Project ID: L67442
Date Received: 07/29/2021 10:45
Received By:
Date Printed: 7/30/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	☐	☐	☒
2) Is the Chain of Custody form or other directive shipping papers present?	☒	☐	☐
3) Does this project require special handling procedures such as CLP protocol?	☐	☒	☐
4) Are any samples NRC licensable material?	☐	☐	☒
5) If samples are received past hold time, proceed with requested short hold time analyses?	☒	☐	☐
6) Is the Chain of Custody form complete and accurate?	☒	☐	☐
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	☐	☒	☐

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	☒	☐	☐
9) Are all labels on containers and are they intact and legible?	☒	☐	☐
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	☒	☐	☐
11) For preserved bottle types, was the pH checked and within limits? ¹	☒	☐	☐
12) Is there sufficient sample volume to perform all requested work?	☒	☐	☐
13) Is the custody seal intact on all containers?	☐	☐	☒
14) Are samples that require zero headspace acceptable?	☐	☐	☒
15) Are all sample containers appropriate for analytical requirements?	☒	☐	☐
16) Is there an Hg-1631 trip blank present?	☐	☐	☒
17) Is there a VOA trip blank present?	☐	☐	☒
18) Were all samples received within hold time?	☒	☐	☐

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
-----	-----	-----	-----	-----
6650	7.3	NA	15	N/A
6693	4.1	<=6.0	20	N/A

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Ensero Solutions
3100-PO205

ACZ Project ID: L67442

Date Received: 07/29/2021 10:45

Received By:

Date Printed: 7/30/2021

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

