REVIEWED
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June 27,

2022

1RP-3360
2022 Semi-Annual (January-June) Groundwater Monitoring Report
Legacy Reserves, L.P., Langlie Mattix Penrose Sand Unit Trash Pit
Lea County, New Mexico

Review of the 2022 Semi-Annual GW Report for the Langlie Mattix Penrose Sand Unit Trash Pit:
Content Satisfactory
1. Request to reduce groundwater monitoring events from four (4) quarterly events to semi-annually is granted based on plume stability.
2.Legacy may discontinue sampling for nitrate as it has demonstrated to be well below the NMWQCC standard of 10 mg/L over multiple events.
3. Submit 2023 Annual Groundwater Report by or before April 1, 2024.

Prepared for:

LEGACY RESERVES

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1.0 EXECUTIVE SUMMARY

Larson & Associates, Inc. (LAI) has prepared this report on behalf of Legacy Reserves, L.P. (Legacy) for submittal to the New Mexico Oil Conservation Division (NMOCD) District I in Hobbs and Santa Fe, New Mexico. This report presents 2022 semi-annual (January-June) groundwater monitoring results for the Langlie Mattix Penrose Sand Unit (LMPSU) trash pit (Site) located in Lea County, New Mexico. The Site is a former trash pit located in Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East that was closed in 2014 according to a plan approved by NMOCD District 1. The geodetic position is North 32.35788° and West -103.14724°. NMOCD was notified prior to each groundwater monitoring event.

The following activities occurred on February 25, 2022, and May 18, 2022:

- Gauged four (4) monitor wells (MW-1 through MW-4) for depth to groundwater.
- Purged and sample groundwater from four (4) monitor wells (MW-1 through MW-4) using the low stress (low flow) method.
- Analyzed groundwater samples for benzene, toluene, ethylbenzene, and xylenes (BTEX), chloride, sulfate, alkalinity, and total dissolved solids (TDS).

The following first quarter (February 25, 2022) and second quarter (May 18,2022) observations are documented in this report:

- On February 25, 2022, depth to groundwater ranged from 39.54 feet bgs (MW-4) to 45.15 feet bgs (MW-3). The groundwater potentiometric surface elevation ranged from 3,280.87 feet above mean sea level (MSL) at MW-2 (upgradient) to 3,280.62 feet above MSL at MW-4 (down gradient).
- On May 18, 2022, depth to groundwater ranged from 39.56 feet bgs (MW-4) to 42.31 feet bgs (MW-3). The groundwater potentiometric surface elevation ranged from 3,280.87_feet above MSL at MW-2 (upgradient) to 3,280.60 feet above MSL at MW-4 (down gradient).
- The groundwater flow direction was from north – northwest to south – southeast at a gradient between about 0.0003 and 0.004 feet per foot (ft/ft).
- Monitoring well MW-2 remains hydraulically up-gradient.
- BTEX compounds were below the analytical method reporting limit (RL) and New Mexico Water Quality Control Commission (NMWQCC) human health standards in all samples on February 25 and May 18, 2022.
- Chloride concentrations were above the NMWQCC domestic water quality standard of 250 mg/L in MW-1 (1,930 mg/L) and MW-3 (453 mg/L) on February 25, 2022, and in MW-1 (1,980 mg/L) and MW-3 (470 mg/L) on May 18, 2022.
- TDS concentrations were above the NMQCC domestic water quality standard of 1,000 mg/L, in MW-1 (4,570 mg/L) and MW-3 (1,400 mg/L) on February 25, 2022, and MW-1 (4,570 mg/L) and MW-3 (1,370 mg/L) on May 18, 2022
- Sulfate concentrations were above NMQCC domestic water quality standards of 600 mg/L in MW-1 on February 25 and May 18, 2022.
- The source for chloride in well MW-1 is a historic disposal pit that was excavated during trash pit remediation.

- Chloride concentrations in MW-1 appear stable following remediation.
- The source of chloride in MW-3 appears to be from a an up-gradient or cross-gradient source.
- A duplicate water sample (DUP-1) was collected from MW-2 to evaluate the variability in analytical methods on February 25 and May 18, 2022.

Legacy proposes the following:

- Legacy will continue groundwater monitoring on a quarterly (4 times per year) schedule through 2022 or as directed by the OCD.
- Collect depth to groundwater and groundwater samples from all monitoring wells during each quarterly event.
- Legacy will exclude nitrate from the parameter list as concentrations consistently report below the NMWQCC human health standard and short holding time (24 hours).
- Legacy will continue to report the laboratory results to OCD in annual reports unless significant changes in analyte concentrations are detected, at which time Legacy will immediately report the results to OCD.
- Legacy will provide notice to the OCD in Hobbs and Santa Fe, New Mexico, at least 5 working days prior to each event.

2.0 INTRODUCTON

Larson & Associates, Inc. (LAI) has prepared this report on behalf of Legacy Reserves, L.P. (Legacy) for submittal to the New Mexico Oil Conservation Division (NMOCD) District I in Hobbs and Santa Fe, New Mexico. This report presents 2022 semi-annual (January-June) groundwater monitoring results for the Langlie Mattix Penrose Sand Unit (LMPSU) trash pit (Site). The Site is a former trash pit located in Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East, in Lea County, New Mexico. The geodetic position is North 32.35788° and West -103.14724°. NMOCD was notified prior to each groundwater monitoring event. Figure 1 presents a topographic map. Figure 2 presents an aerial map. Figure 3 presents a site drawing. Appendix A presents NMOCD communications.

2.1 Background

On May 16, 2011, OCD issued a letter to the current and past operators of the LMPSU that referenced a complaint from a nearby landowner that burial of miscellaneous refuse and debris occurred at the Site. Legacy, as current operator, retained Etech Environmental & Safety Solutions, Inc. (Etech) to investigate the Site. Etech used a metal detector to identify locations where metallic waste may have been buried and excavated five (5) locations to a maximum depth of about 20 feet below ground surface (BGS). Waste and debris were excavated and segregated from the soil. The waste was disposed at a permitted facility and about 7,500 to 9,000 cubic yards of soil was retained on the Site. Etech installed monitoring well MW-1 in 2013, about 50 feet southwest of the Site. The monitoring well was drilled to about 64 feet bgs and groundwater was gauged at about 42 feet bgs. No construction documentation is available for the well.

Legacy retained LAI in March 2014 to complete the investigation and close the excavations. LAI personnel samples from the excavations on May 9, 2014. The samples were analyzed for total petroleum hydrocarbons (TPH) and chloride. The laboratory reported TPH above the OCD recommended remediation action level (1993) of 100 parts per million (ppm) in the excavation bottom and sidewall samples. The vertical and lateral extent of TPH impact and chloride was determined from 15 soil borings drilled at various locations. Chloride was about 250 mg/Kg in the deepest samples at nine (9) boring locations. Approximately 1,630 cubic yards of soil piled near the west side of the Site required disposal at Sundance Services, located east of Eunice, New Mexico. On August 1, 2014, OCD District 1 approved a plan to close the excavations by placing a 20-mil thickness polyethylene liner in the bottom of the excavation at least 4 feet BGS and backfilling the excavation with soil from the onsite piles. Excavation closure was completed on August 30, 2014.

On May 11, 2014, LAI personnel collected groundwater samples from well MW-1 and analyzed the samples for benzene, toluene, ethylbenzene, xylenes (BTEX), filtered metals (calcium, magnesium, sodium and potassium), anions (alkalinity, sulfate and chloride), nitrate and total dissolved solids (TDS). BTEX compounds were below the laboratory method reporting limits (RL) and New Mexico Water Quality Control Commission (NMWQCC) human health standards. Chloride and TDS were reported at 1,480

milligrams per liter (mg/L) and 3,510 mg/L, respectively, and exceeded the NMWQCC domestic water quality standards of 250 mg/L and 1,000 mg/L, respectfully.

On June 12, 2014, and April 15, 2015, Scarborough Drilling, Inc. (SDI), under LAI supervision, installed monitoring well MW-2 about 275 feet north from the Site, monitoring well MW-3 about 190 feet west from the Site and monitoring well MW-4 about 160 feet east from the Site. On June 13, 2014 and December 11, 2014, LAI personnel collected groundwater samples from wells MW-1, MW-2, MW-3, and MW-4. Chloride and TDS exceeded the New Mexico Water Control Commission (NMWQCC) domestic water quality standards of 250 milligrams per liter (mg/L) and 1,000 mg/L, respectively in samples from MW-1 and MW-3. Two (2) historic emergency pits (closed) located north of well MW-were excavated with the trash pit are suspected as the source for the chloride and TDS in well MW-1. An upgradient source west of the Site is suspected of chloride and TDS in well MW-3.

Legacy is the owner of approximately 40 acres that includes the trash pit, disposal pits and surrounding area. LAI personnel investigated the groundwater impact by reviewing available historical aerial photographs, conducting electromagnetic (EM) terrain conductivity surveys, installing monitoring wells (MW-2, MW-3 and MW-4), collection and analysis of groundwater samples and performing aquifer hydraulic conductivity (slug) tests. The investigation concluded that groundwater was migrating east and southeast. The trash pit closure and groundwater investigation were documents in reports that were submitted to OCD on September 22, 2014 (“*Excavation Closure Report and Groundwater Investigation Plan”*) and November 2, 2015 (*“Groundwater Investigation Report”*). The OCD assigned the trash pit remediation permit number 1RP-3360. Appendix A presents the NMOCD correspondence.

2.2 Physical Setting

- The surface elevation is approximately 3,315 feet above mean sea level (MSL) and slopes gently to the southeast.
- The nearest surface water is the ephemeral Monument Draw located about 1.5 miles east of the Site with no apparent surface connection to the Site.
- Surface soils are Ratliff-Wink fine sandy loams consisting of about 4 inches of fine sandy loam, underlain by about 54 inches of clay loam.
- The surface geology consists of recent-age eolian (windblown) to Pleistocene-age alluvium derived mostly from reworking the underlying Tertiary-aged Blackwater Draw and Ogallala formations, in descending order. The Blackwater Draw formation is comprised mainly of fine-grained wind-blown sand derived from the underlying Ogallala formation. The Ogallala formation consists of fluvial sand, silt, clay and localized gravel, with indistinct to massive cross beds. The Ogallala sand is generally fine- to medium-grained quartz. Carbonate indurated sand commonly referred to as “caliche” occurs between about 10 feet below ground surface (BGS).
- Groundwater occurs in the Ogallala formation at approximately 42 feet BGS with a saturated thickness of about 20 feet.

- The Ogallala formation overlies the Triassic-age Chinle formation of the Dockum group which is composed of interbedded sand, clay, and mudstone.
- The nearest fresh water well is located about 3,700 feet southwest of the Site with depth to groundwater reported at about 46 feet BGS and used for watering livestock.

3.0 GROUNDWATER MONITORING

On February 25, 2022, LAI personnel gauged monitor wells MW-1 through MW-4 for depth to groundwater. Groundwater was gauged at 43.43 (MW-1), 44.31 (MW-2), 45.15 (MW-3), and 41.54 (MW-4) feet below top of casing (TOC). Depth to ground water increased (lowering) in MW-1 (0.03 feet), MW-2 (0.05 feet), MW-3 (0.04 feet), and MW-4 (0.05 feet) compared to the previous monitoring event on November 19, 2021. The minor changes in depth to groundwater is attributed to seasonal fluctuations in the aquifer. Table 1 presents the groundwater gauging summary.

The groundwater potentiometric surface elevation ranged from 3,280.87 feet above mean sea level (MSL) at MW-2 to 3,280.62 above MSL at MW-4 (down gradient) on February 25, 2022. Groundwater flows from northwest to southeast at gradients between 0.000291 and 0.000376 feet per foot (ft/ft). No significant changes in groundwater flow direction or gradient were observed on February 25, 2022, compared to observations made during the previous monitoring event on October 5, 2020. Figure 4a presents the potentiometric surface map on February 25, 2022.

On May 18, 2022, LAI personnel gauged monitor wells MW-1 through MW-4 for depth to groundwater. Ground water was gauged at 43.41 (MW-1), 44.29 (MW-2), 45.14 (MW-3), and 41.56 (MW-4) feet below TOC. Depth to ground water decreased (rising) in MW-1 (0.02 feet), MW-2 (0.02 feet), and MW-3 (0.01 feet) and increased (lowering) in MW-4 (0.02 feet) compared to the previous monitoring event on February 25, 2022. Table 1 presents the groundwater gauging summary.

The groundwater potentiometric surface elevation ranged from 3,280.89 feet above MSL at MW-2 to 3,280.60 above MSL at MW-4 (down gradient). Groundwater flow from the northwest to the southeast at gradients between 0.000311 and 0.000423 ft/ft. No significant changes in groundwater flow direction or gradient were observed on May 18, 2022, compared to observations made on February 25, 2022. Figure 4b presents the potentiometric surface map on May 18, 2022.

4.0 GROUNDWATER SAMPLES AND ANALYSIS

On February 25 and May 18, 2022, LAI personnel collected groundwater samples from monitors wells MW-1 through MW-4, using the low stress or low flow method according to EPA protocol (EQASOP-GW4, Revision 4, September 19, 2017) where an environmental pump is submerged near the middle of the water column and the well is pumped at a low rate until environmental parameters stabilize. Groundwater samples were collected from discharge through dedicated disposable Tygon® tubing. The tubing was

discarded after each use and the pump was thoroughly cleaned with a solution of potable water and laboratory grade detergent (alconox) and rinsed with distilled water. The samples were carefully transferred to laboratory containers that were labeled, packed in an ice chest filled with ice, and delivered under chain of custody control to DHL Analytical, Inc. (DHL), a National Environmental Laboratory Accreditation Conference (NELAC) accredited laboratory, located in Round Rock, Texas. A duplicate sample was collected from well MW-2 for laboratory quality assurance and quality control (QA/QC).

DHL analyzed the samples for BTEX according to EPA SW-846 Method SW-8260D, cations (calcium, magnesium, potassium, and sodium) by Method SW-6020B, anions (chloride and sulfate) by EPA Method 300, alkalinity by EPA Method M-2320B, and total dissolved solids (TDS) by EPA Method M-2540C,. Table 2 presents the laboratory analytical summary. Appendix B presents the laboratory reports.

4.1 Organic Analysis

DHL reported BTEX concentrations in the groundwater samples collected on February 25 and May 18, 2022, below the laboratory analytical RL and below New Mexico Water Quality Control Commission (NMWQCC) human health standards. The results are consistent with the results from previous groundwater monitoring events.

4.2 Inorganic Analysis

Chloride concentrations in groundwater samples collected on February 25, 2022, from monitoring wells MW-1 (1,930 mg/L) and MW-3 (453 mg/L) were above the NMWQCC domestic water quality standard of 250 mg/L. Chloride concentrations remained below NMWQCC domestic water quality standards in MW-2 (74 mg/L) and MW-4 (176 mg/L). The results are consistent with previous groundwater monitoring events. The duplicate (QA/QC) sample (Dup-1) collected from MW-2 on is within 3.9 percent (71.1 mg/L) of the original chloride value (74 mg/L) for MW-2. No data quality exceptions were noted in the DHL case narratives. Figure 4a presents the chloride concentration map on February 25, 2022.

Chloride concentrations in groundwater samples collected on May 18, 2022, from monitoring wells MW-1 (1,980 mg/L) and MW-3 (470 mg/L) remained above the NMWQCC domestic water quality standard of 250 mg/L. Chloride concentrations in groundwater samples collected from monitoring wells MW-2 (79 mg/L) and MW-4 (175 mg/L) remained below the NMWQCC domestic water quality standard. No significant changes in chloride concentrations were observed in the samples from MW-1 through MW-4 and consistent with previous groundwater monitoring events. The duplicate (QA/QC) sample (Dup-1) collected on May 18, 2022, is within 1.3 percent (78 mg/L) of the original value (79 mg/L) for MW-2. No data quality exceptions were noted in the DHL case narratives. Figure 5 presents the chloride isopleth map for February 25, 2022.

TDS concentrations remain above NMWQCC domestic water quality standard (1,000 mg/L) in groundwater samples collected on February 25, 2022, from MW-1 (4,570 mg/L) and MW-3 (1,400). TDS concentrations remained below the NMWQCC domestic water quality standard in wells MW-2 (638 mg/L)

and MW-4 (861 mg/L). The data is consistent with results from previous sampling events. Figure 6 presents the TDS isopleth map for February 25, 2022.

TDS concentrations for samples collected on May 18, 2022, were above the NMWQCC domestic water quality standard (1,000 mg/L) in samples collected from MW-1 (4,550 mg/L) and MW-3 (1,370 mg/L). TDS concentrations remained below the NMWQCC domestic water quality standard in wells MW-2 (650 mg/L) and MW-4 (880 mg/L). The data is consistent with results from previous sampling events.

On February 25, 2022, sulfate concentrations were above the NMWQCC domestic water quality standard of 600 mg/L in the groundwater sample collected from monitoring well MW-1 (609 mg/L). Sulfate concentrations were below the NMWQCC standard in monitoring wells MW-2 (124 mg/L), MW-3 (266 mg/L), MW-4 (200 mg/L). The data is consistent with previous sampling events.

On May 18, 2022, sulfate concentrations remained above the NMWQCC domestic water quality standard in the groundwater sample collected from monitoring well MW-1, and below standard in monitoring wells MW-2 (131 mg/L), MW-3 (277 mg/L), and MW-4 (194 mg/L). The results are consistent with sulfate concentration values from samples collected on February 25, 2022.

5.0 CONCLUSIONS

The following observations are documented in this report:

- Monitoring well MW-2 remains hydraulically up gradient and representative of background chloride, sulfate, alkalinity, and TDS in groundwater.
- BTEX was reported below the analytical method RL and New Mexico NMWQCC human health standards in wells MW-1 through MW-4 on February 25 and May 18, 2022.
- Chloride exceeded the NMWQCC domestic water quality standard of 250 mg/L in samples collected from MW-1 (1,930 mg/L) and MW-3 (453 mg/L) on February 25, 2022.
- Chloride Exceeded the NMWQCC domestic water quality standard of 250 mg/L in samples collected from MW -1 (1,980 mg/L) and MW-3 (470 mg/L) on May 18, 2022.
- TDS exceeded the NMWQCC domestic water quality standards of 1,000 mg/L in samples collected from MW-1 (4,570 mg/L) and MW-3 (1,400 mg/L) February 25, 2022.
- TDS exceeded the NMWQCC domestic water quality standards of 1000 mg/L in samples collected from MW-1 (4,550 mg/L) and MW-3 (1,370 mg/L) May 18, 2022
- Chloride and TDS concentrations remained below the NMWQCC domestic water quality standard of 250 mg/L and 1,000 mg/L, respectively, in samples collected from well MW-2 and MW-4.
- Chloride and TDS concentrations in MW-3 appears to be associated with an up-gradient source or variable water quality.

6.0 RECOMMENDATIONS

Legacy proposes the following modifications to the voluntary monitoring program:

- Reduce the monitoring frequency from quarterly (4 times per year) to semi-annual (2 times per year) based on source removal and plume stability.
- Gauge depth to groundwater and collect groundwater samples from all wells during each semi-annual event and laboratory analysis for BTEX, cations (calcium, magnesium, sodium and potassium), anions (alkalinity, sulfate and chloride) and total dissolved solids (TDS);

Notice will be provided to the NMOCD in Hobbs and Santa Fe, New Mexico, at least 5 working days prior to each monitoring event. The OCD will be notified immediately upon receipt of laboratory analysis of any significant increases in analyte concentrations.

Tables

Table 1
Monitoring Well Drilling and Completion Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Well Information									Groundwater Data			
Well	Date Installed	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Water (TOC)	Depth to Water (BGS)	Groundwater Elevation (Feet)
MW-1	--	--	63.69	2	3,321.1	--	2.86	3324.09	01/28/2015	43.79	40.93	3280.30
									06/01/2015	43.69	40.83	3280.40
									08/18/2015	46.60	43.74	3277.49
									09/11/2015	43.60	40.74	3280.49
									12/03/2015	42.55	39.69	3281.54
									03/17/2016	43.45	40.59	3280.64
									07/19/2016	43.46	40.60	3280.63
									08/26/2016	43.46	40.60	3280.63
									10/18/2016	43.33	40.47	3280.76
									01/18/2017	43.35	40.49	3280.74
									04/25/2017	43.47	40.61	3280.62
									09/13/2017	43.28	40.42	3280.81
									12/19/2017	43.28	40.42	3280.81
									02/26/2018	43.28	40.42	3280.81
									05/07/2018	43.28	40.42	3280.81
									08/02/2018	43.33	40.47	3280.76
									12/10/2018	44.39	41.53	3279.70
									02/18/2019	43.55	40.69	3280.54
									05/07/2019	43.35	40.49	3280.74
									08/01/2019	43.40	40.54	3280.69
									12/05/2019	43.37	40.51	3280.72
									02/17/2020	43.90	41.04	3280.19
									05/04/2020	43.30	40.44	3280.79
									08/12/2020	43.40	40.54	3280.69
									10/05/2020	43.45	40.59	3280.64
									*01/04/2021	45.19	42.33	3278.90
									02/01/2021	43.50	40.64	3280.59
									04/30/2021	43.46	40.60	3280.63
									08/09/2021	43.41	40.55	3280.68
									11/19/2021	43.40	40.54	3280.69

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Well	Date Installed	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Water (TOC)	Depth to Water (BGS)	Groundwater Elevation (Feet)
									02/25/2022	43.43	40.57	3280.66
									05/18/2022	43.41	40.55	3280.68
MW-2	6/12/2014	58.00	60.50	2	3322.9	38.17 - 57.77	2.16	3,325.18	01/28/2015	43.79	41.63	3281.39
									06/01/2015	49.88	47.72	3275.30
									08/18/2015	44.75	42.59	3280.43
									09/11/2015	44.50	42.34	3280.68
									12/03/2015	44.65	42.49	3280.53
									03/17/2016	44.66	42.50	3280.52
									07/19/2016	44.35	42.19	3280.83
									08/26/2016	44.35	42.19	3280.83
									10/18/2016	44.25	42.09	3280.93
									01/18/2017	44.31	42.15	3280.87
									04/25/2017	43.15	40.99	3282.03
									09/13/2017	44.17	42.01	3281.01
									12/19/2017	44.18	42.02	3281.00
									02/26/2018	44.16	42.00	3281.02
									05/07/2018	44.16	42.00	3281.02
									08/02/2018	44.18	44.02	3281.00
									12/10/2018	44.25	42.09	3280.93
									02/18/2019	44.22	42.06	3280.96
									05/07/2019	44.20	42.04	3280.98
									08/01/2019	44.21	42.05	3280.97
									12/05/2019	44.21	42.05	3280.97
									02/17/2020	44.30	42.14	3280.88
									05/04/2020	44.18	42.02	3281.00
									08/12/2020	44.30	42.14	3280.88
									10/05/2020	44.30	42.14	3280.88
									*01/04/2021	41.59	39.43	3283.59
									02/01/2021	44.35	42.19	3280.83
									04/30/2021	44.34	42.18	3280.84

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Well	Date Installed	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Water (TOC)	Depth to Water (BGS)	Groundwater Elevation (Feet)
									08/09/2021	44.30	42.14	3280.88
									11/19/2021	44.26	42.10	3280.92
									02/25/2022	44.31	42.15	3280.87
									05/18/2022	44.29	42.13	3280.89
MW-3	4/15/2015	55.00	57.83	2	3322.9	34.69 - 54.75	2.83	3,325.87	04/15/2015	46.00	43.17	3279.87
									06/01/2015	45.53	42.70	3280.34
									08/18/2015	45.42	42.59	3280.45
									09/11/2015	45.40	42.57	3280.47
									12/03/2015	45.21	42.38	3280.66
									03/17/2016	45.35	42.52	3280.52
									07/19/2016	45.12	42.29	3280.75
									08/26/2016	45.13	42.30	3280.74
									10/18/2016	45.01	42.18	3280.86
									01/18/2017	45.07	42.25	3280.80
									04/25/2017	44.93	42.10	3280.94
									09/13/2017	44.90	42.07	3280.97
									12/19/2017	44.94	42.11	3280.93
									02/26/2018	44.94	42.11	3280.93
									05/07/2018	44.94	42.11	3280.93
									08/02/2018	45.02	42.19	3280.85
									12/10/2018	45.09	42.26	3280.78
									02/18/2019	45.10	42.27	3280.77
									05/07/2019	45.02	42.19	3280.85
									08/01/2019	45.09	42.26	3280.78
									12/05/2019	45.07	42.25	3280.80
									02/17/2020	45.00	42.17	3280.87
									05/04/2020	45.05	42.22	3280.82
									08/12/2020	45.10	42.27	3280.77
									10/05/2020	45.15	42.32	3280.72

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									*01/04/2021	44.34	41.51	3281.53
									02/01/2021	45.20	42.37	3280.67
									04/30/2021	45.20	42.37	3280.67
									08/09/2021	45.11	42.28	3280.76
									11/19/2021	45.11	42.28	3280.76
									02/25/2022	45.15	42.32	3280.72
									05/18/2022	45.14	42.31	3280.73
MW-4	4/15/2015	58.00	60.00	2	3320.1	38.31 - 57.77	2.00	3,322.16	04/15/2015	42.08	40.08	3280.08
									06/01/2015	42.35	40.35	3279.81
									08/18/2015	42.20	40.20	3279.96
									09/11/2015	42.00	40.00	3280.16
									12/03/2015	41.77	39.77	3280.39
									03/17/2016	42.02	40.02	3280.14
									07/19/2016	41.65	39.65	3280.51
									08/26/2016	41.64	39.64	3280.52
									10/18/2016	41.51	39.51	3280.65
									01/18/2017	41.54	39.54	3280.62
									04/25/2017	41.47	39.47	3280.69
									09/13/2017	41.39	39.39	3280.77
									12/19/2017	41.43	39.43	3280.73
									02/26/2018	41.44	39.44	3280.72
									05/07/2018	41.41	39.41	3280.75
									08/02/2018	41.48	39.48	3280.68
									12/10/2018	41.49	39.49	3280.67
									02/18/2019	41.49	39.49	3280.67
									05/07/2019	41.45	39.45	3280.71
									08/01/2019	41.50	39.50	3280.66
									12/05/2019	41.49	39.49	3280.67
									02/17/2020	42.50	40.50	3279.66
									05/04/2020	41.45	39.45	3280.71

Table 1
Monitoring Well Drilling and Completion Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Well Information									Groundwater Data			
Well	Date Installed	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Water (TOC)	Depth to Water (BGS)	Groundwater Elevation (Feet)
									08/12/2020	41.50	39.50	3280.66
									10/05/2020	41.49	39.49	3280.67
									*01/04/2021	43.47	41.47	3278.69
									02/01/2021	41.60	39.60	3280.56
									04/30/2021	41.60	39.60	3280.56
									08/09/2021	41.44	39.44	3280.72
									11/19/2021	41.49	39.49	3280.67
									02/25/2022	41.54	39.54	3280.62
									05/18/2022	41.56	39.56	3280.60

Table 2
Groundwater Analytical Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Sample	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Alkalinity (mg/L)	Nitrate (mg/L)	TDS (mg/L)
WQCC Standard:		**0.005**	**1**	**0.7**	**0.62**					**250**	**600**		**10**	**1000**
MW-1	12/11/2014	--	--	--	--	186	242	22.3	913	**1600**	543	888	<0.100	**5,330**
	01/28/2015	--	--	--	--	610	437	32.5	1430	**3230**	**947**	417	<0.100	**6,260**
	06/01/2015	<0.001	<0.001	<0.001	<0.001	201	270	27.6	950	**1560**	446	653	<0.2	**3,920**
	08/18/2015	<0.0008	<0.002	<0.002	<0.003	152	224	21.5	820	**1600**	433	723	<0.10	**3,830**
	12/03/2015	<0.0008	<0.002	<0.002	<0.003	310	258	22.6	930	**1820**	431	727	<0.1	**4,230**
	03/17/2016	<0.002	<0.006	<0.006	<0.009	184	283	22.7	982	**1920**	432	---	<0.500	**4,130**
	07/19/2016	<0.002	<0.006	<0.006	<0.009	185	292	21.6	1020	**2040**	478	714	<0.500	**4,690**
	08/29/2016	<0.002	<0.006	<0.006	<0.009	166	278	19.9	986	**1840**	450	721	<0.500	**5,130**
	10/18/2016	<0.002	<0.006	<0.006	<0.009	2030	318	25	1040	**2030**	406	739	<0.500	**5,040**
	01/18/2017	<0.002	<0.006	<0.006	<0.006	212	333	22.9	1130	**2080**	454	766	<0.500	**5,500**
	04/25/2017	<0.002	<0.006	<0.006	<0.006	313	366	26.6	1290	**2840**	**852**	439	<0.500	**9,820**
	09/13/2017	<0.002	<0.006	<0.006	<0.006	217	329	21.8	1070	**1920**	361	811	<1.00	**4,950**
	12/19/2017	<0.002	<0.006	<0.006	<0.006	214	325	21.9	1070	**2170**	521	734	<0.0800	**4,910**
	02/26/2018	<0.002	<0.006	<0.006	<0.006	217	336	21.3	1160	**2190**	559	751	<0.0500	**4,930**
	05/07/2018	<0.002	<0.006	<0.006	<0.006	218	338	20.5	1150	**2170**	**643**	725	<0.0500	**5,000**
	08/02/2018	<0.00200	<0.00600	<0.00600	<0.00600	227	329	22.4	1080	**2040**	**693**	726	<0.0500	**5,060**
	12/10/2018	<0.00200	<0.00600	<0.00600	<0.00600	219	341	20.4	1100	**1980**	**696**	714	<0.0500	**5,340**
	02/18/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**2610**	--	--	--	--
	05/07/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**2570**	--	--	--	--
	08/01/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**2010**	--	--	--	--
	12/05/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**2110**	--	--	--	--
	02/17/2020	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**1950**	--	--	--	--
	05/04/2020	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**2240**	--	--	--	--
	08/12/2020													
	01/04/2021	<0.00200	<0.00600	<0.00600	<0.00600	63.5	71.4	9.76	288	**449**	261	204	--	**1,420**

Table 2
Groundwater Analytical Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Sample	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Alkalinity (mg/L)	Nitrate (mg/L)	TDS (mg/L)
WQCC Standard:		**0.005**	**1**	**0.7**	**0.62**					**250**	**600**		**10**	**1000**
	02/01/2021	<0.00200	<0.00600	<0.00600	<0.00600	196	325	19.7	1130	**2130**	**652**	694	--	**5,060**
	04/30/2021	<0.000800	<0.00200	<0.00200	<0.00200	207	314	19.1	1100	**2120**	**750**	657	--	**4,940**
	08/09/2021	<0.00800	<0.00200	<0.00200	<0.00200	192	297	18.5	1090	**1930**	**737**	646		**4,800**
	11/19/2021	<0.000800	<0.00200	<0.00200	<0.00200	191	288	18	1,000	**1,950**	**724**	613	--	**4,770**
	02/25/2021	<0.000800	<0.00200	<0.00200	<0.00200	170	278	18.2	1,100	**1,930**	**690**	638	--	**4,570**
	05/18/2022	<0.00800	<0.00200	<0.00200	<0.00200	183	269	17.8	1,000	**1,980**	**703**	566	--	**4,550**
MW-2	12/11/2014	--	--	--	--	64.5	34.9	8.29	116	71.8	119	361	1.42	619
	01/28/2015	--	--	--	--	91.1	36.6	7.3	126	71.3	112	288	1.36	573
	06/01/2015	<0.001	<0.001	<0.001	<0.001	54.9	34.6	<10	117	57.8	112	281	1.63	578
	08/18/2015	<0.0008	<0.002	<0.002	<0.003	118	32.6	6.01	104	73.9	114	274	1.35	583
	12/03/2015	<0.0008	<0.002	<0.002	<0.003	214	31.8	6.22	106	67	112	247	1.23	582
	03/17/2016	<0.002	<0.006	<0.006	<0.009	44.5	27.2	6.02	99	63.8	114	---	1.57	560
	07/19/2016	<0.002	<0.006	<0.006	<0.009	42.6	28	5.69	109	65.6	113	221	1.44	605
	08/29/2016	<0.002	<0.006	<0.006	<0.009	45.8	28.1	5.99	107	61.5	109	262	1.53	923
	10/18/2016	<0.002	<0.006	<0.006	<0.009	45.6	28.6	6.4	103	59.8	105	241	1.52	571
	01/18/2017	<0.002	<0.006	<0.006	<0.006	45.7	28.3	5.79	107	60	109	246	1.53	591
	04/25/2017	<0.002	<0.006	<0.006	<0.006	44.4	28.7	5.55	108	59.9	112	248	1.43	649
	09/13/2017	<0.002	<0.006	<0.006	<0.006	49.3	28.4	6.15	102	61.2	111	256	1.58	577
	12/19/2017	<0.002	<0.006	<0.006	<0.006	46.3	28.3	5.55	104	63	106	298	1.39	571
	02/26/2018	<0.002	<0.006	<0.006	<0.006	46.3	28.3	5.75	107	64.6	111	301	1.34	593
	05/07/2018	<0.002	<0.006	<0.006	<0.006	49.2	29.1	5.64	109	63.2	125	257	1.45	580
	08/02/2018	<0.00200	<0.00600	<0.00600	<0.00600	51.7	28.4	5.72	106	68.8	120	274	1.21	616
	12/10/2018	<0.00200	<0.00600	<0.00600	<0.00600	46.4	28.4	5.54	109	65.4	112	260	1.33	601
	02/18/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	67	--	--	--	--

Table 2
Groundwater Analytical Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Sample	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Alkalinity (mg/L)	Nitrate (mg/L)	TDS (mg/L)
WQCC Standard:		**0.005**	**1**	**0.7**	**0.62**					**250**	**600**		**10**	**1000**
	05/07/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	67.1	--	--	--	--
	08/01/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	72.2	--	--	--	--
	12/05/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	58.2	--	--	--	--
	02/17/2020	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	67.6	--	--	--	--
	05/04/2020	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	68.4	--	--	--	--
	01/04/2021	<0.00200	<0.00600	<0.00600	<0.00600	69.8	45.3	8.07	169	194	207	244	--	917
	02/01/2021	<0.00200	<0.00600	<0.00600	<0.00600	56.2	45.1	6.4	135	73	258	274	--	827
	04/30/2021	<0.000800	<0.00200	<0.00200	<0.00200	52.7	28	5.36	107	61.4	126	258	--	607
	08/09/2021	<0.000800	<0.00200	<0.00200	<0.00200	50	29.4	5.39	114	65.4	121	269	--	605
	11/19/2021	<0.000800	<0.00200	<0.00200	<0.00200	50.5	27.6	5.4	101	65.5	118	257	--	597
	02/25/2022	<0.00800	<0.00200	<0.00200	<0.00200	50.4	29.8	5.74	118	74	124	264	--	638
	05/18/2022	<0.000800	<0.00200	<0.00200	<0.00200	53.1	28.1	5.31	109	79	131	270		650
MW-3	06/01/2015	<0.001	<0.001	<0.001	<0.001	57.6	60.5	10.7	324	**399**	234	290	2.19	**1,180**
	08/18/2015	<0.0008	<0.002	<0.002	<0.003	147	51.5	8.22	284	**405**	239	230	1.5	**1,380**
	12/03/2015	<0.0008	<0.002	<0.002	<0.003	221	51.9	8.48	284	**350**	222	232	1.19	**1,260**
	03/17/2016	<0.002	<0.006	<0.006	<0.009	49.2	47.9	8.58	284	**334**	232	---	1.85	**1,050**
	07/19/2016	<0.002	<0.006	<0.006	<0.009	41.5	47.7	7.93	301	**349**	233	244	1.75	**1,260**
	08/29/2016	<0.002	<0.006	<0.006	<0.009	51.9	47.4	7.78	277	**327**	252	230	1.83	**1,240**
	10/18/2016	<0.002	<0.006	<0.006	<0.009	49.6	56.4	9.32	324	**340**	223	219	1.78	**1,280**
	01/18/2017	<0.002	<0.006	<0.006	<0.006	45.7	51.8	8.54	312	**342**	240	215	1.75	**1,340**
	04/25/2017	<0.002	<0.006	<0.006	<0.006	50	62.5	9.6	392	**342**	223	220	1.6	**1,510**
	09/13/2017	<0.002	<0.006	<0.006	<0.006	49.6	54.2	9.22	314	**380**	227	218	1.91	**1,410**
	12/19/2017	<0.002	<0.006	<0.006	<0.006	52.9	56.2	9.21	304	**379**	243	207	1.81	**1,280**
	02/26/2018	<0.002	<0.006	<0.006	<0.006	49.7	53.7	8.66	296	**378**	216	218	2.13	**1,280**

Table 2
Groundwater Analytical Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Sample	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Alkalinity (mg/L)	Nitrate (mg/L)	TDS (mg/L)
WQCC Standard:		**0.005**	**1**	**0.7**	**0.62**					**250**	**600**		**10**	**1000**
	05/07/2018	<0.002	<0.006	<0.006	<0.006	53.7	56.6	8.85	311	**414**	249	204	2.21	**1,300**
	08/02/2018	<0.00200	<0.00600	<0.00600	<0.00600	55.8	54.2	9.09	283	**388**	256	210	2.13	**1,330**
	12/10/2018	<0.00200	<0.00600	<0.00600	<0.00600	53.6	59.2	8.66	298	**391**	251	207	1.81	**1,330**
	02/18/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**421**	--	--	--	--
	05/07/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**432**	--	--	--	--
	08/01/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**421**	--	--	--	--
	12/05/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**429**	--	--	--	--
	02/17/2020	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**424**	--	--	--	--
	05/04/2020	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	**451**	--	--	--	--
	01/04/2021	<0.00200	<0.00600	<0.00600	<0.00600	48.7	27.7	5.67	106	65.9	108	259	--	596
	02/01/2021	<0.00200	<0.00600	<0.00600	<0.00600	64.4	74.2	9.8	295	**452**	262	197	--	**1,410**
	04/30/2021	<0.000800	<0.00200	<0.00200	<0.00200	65.3	70.1	10	300	**483**	269	195	--	**1,480**
	08/09/2021	<0.000800	<0.00200	<0.00200	<0.00200	65.3	72.1	9.81	294	**447**	278	194	--	**1,380**
	11/19/2021	<0.000800	<0.00200	<0.00200	<0.00200	70.4	70.2	9.34	266	**457**	484	193	--	**1,410**
	02/25/2022	<0.000800	<0.00200	<0.00200	<0.00200	65.4	72.3	9.75	296	**453**	266	195	--	**1,400**
	05/18/2022	<0.000800	<0.00200	<0.00200	<0.00200	75.7	73.2	9.85	278	**470**	277	194		**1,370**
MW-4	06/01/2015	<0.001	<0.001	<0.001	0.0015	83	58.6	10.1	186	190	251	236	2.34	918
	08/18/2015	<0.0008	<0.002	<0.002	<0.003	70.6	52.8	8.28	160	213	251	256	1.54	974
	12/03/2015	<0.0008	<0.002	<0.002	<0.003	93.5	54.7	8.91	190	218	239	266	1.19	**1,050**
	03/17/2016	<0.002	<0.006	<0.006	<0.009	83.9	57.2	10.7	171	214	252	---	1.76	945
	07/19/2016	<0.002	<0.006	<0.006	<0.009	80.6	58.7	8.75	213	**259**	273	252	1.61	**1,100**
	08/29/2016	<0.002	<0.006	<0.006	<0.009	81.8	57.2	9.25	202	247	276	266	1.72	**1,500**
	10/18/2016	<0.002	<0.006	<0.006	<0.009	81.8	55.8	8.85	205	**255**	264	248	1.7	**1,270**
	01/18/2017	<0.002	<0.006	<0.006	<0.006	86.2	58.9	8.93	203	**262**	279	245	1.66	**1,210**

Table 2
Groundwater Analytical Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Sample	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Alkalinity (mg/L)	Nitrate (mg/L)	TDS (mg/L)
WQCC Standard:		**0.005**	**1**	**0.7**	**0.62**					**250**	**600**		**10**	**1000**
	04/25/2017	<0.002	<0.006	<0.006	<0.006	86.8	61.9	9.24	213	**285**	279	239	1.51	**1,510**
	09/13/2017	<0.002	<0.006	<0.006	<0.006	99.3	65	11.1	213	**288**	278	236	1.78	**1,280**
	12/19/2017	<0.002	<0.006	<0.006	<0.006	95.6	64.2	9.33	209	**298**	296	226	1.73	**1,240**
	02/26/2018	<0.002	<0.006	<0.006	<0.006	91.8	62.5	9.32	211	**320**	306	239	1.93	**1,250**
	05/07/2018	<0.002	<0.006	<0.006	<0.006	96.2	64.2	9.6	214	**296**	299	234	1.9	**1,220**
	08/02/2018	<0.00200	<0.00600	<0.00600	<0.00600	90.1	54.6	9.23	189	**254**	277	245	1.95	**1,140**
	12/10/2018	<0.00200	<0.00600	<0.00600	<0.00600	77.9	53.6	8.49	195	223	243	249	1.79	**1,110**
	02/18/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	231	--	--	--	--
	05/07/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	215	--	--	--	--
	08/01/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	213	--	--	--	--
	12/05/2019	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	211	--	--	--	--
	02/17/2020	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	195	--	--	--	--
	05/04/2020	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--	211	--	--	--	--
	01/04/2021	<0.00200	<0.00600	<0.00600	<0.00600	210	323	18.9	1100	**2160**	**686**	665	--	**4,950**
	02/01/2021	<0.00200	<0.00600	<0.00600	<0.00600	68.7	46.4	8.1	168	192	221	246	--	948
	04/30/2021	<0.000800	<0.00200	<0.00200	<0.00200	75.3	44.5	8.41	158	179	209	244	--	910
	08/09/2021	<0.000800	<0.00200	<0.00200	<0.00200	65	43.5	7.98	165	181	211	243	--	877
	11/19/2021	<0.000800	<0.00200	<0.00200	<0.00200	70.4	70.2	9.34	266	169	208	243	--	883
	02/22/2022	<0.000800	<0.00200	<0.00200	<0.00200	62	42.7	7.83	165	176	200	256	--	861
	05/18/2022	<0.000800	<0.00200	<0.00200	<0.00200	67	40.8	7.85	156	175	194	247	--	880
QA/QC (Duplicate)														
Dup-1 (MW-1)	02/17/2020	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--		--	--	--	**2,200**
Dup-1 (MW-3)	05/04/2020	<0.00200	<0.00600	<0.00600	<0.00600	--	--	--	--		--	--	--	449
Dup-1 (MW-2)	01/04/2021	<0.00200	<0.00600	<0.00600	<0.00600	68.7	44.6	8	166	191	204	247	--	927

Table 2
Groundwater Analytical Summary
Legacy Reserves, L.P., LMPSU Trash Pit
Unit O (SW/4, SE/4), Section 27, Township 22 South, Range 37 East
Lea County, New Mexico

Sample	Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Alkalinity (mg/L)	Nitrate (mg/L)	TDS (mg/L)
WQCC Standard:		**0.005**	**1**	**0.7**	**0.62**					**250**	**600**		**10**	**1000**
Dup-1 (MW-2)	02/01/2021	<0.00200	<0.00600	<0.00600	<0.00600	55.7	49.2	6.5	145	74.2	285	269	--	860
Dup-1 (MW-2)	04/30/2021	<0.000800	<0.00200	<0.00200	<0.00200	53.2	27.9	5.3	106	60.2	125	262	--	612
Dup-1 (MW-2)	08/09/2021	<0.000800	<0.00200	<0.00200	<0.00200	65	43.5	7.98	165	181	211	243	--	877
Dup-1 (MW-2)	11/19/2021	<0.000800	<0.00200	<0.00200	<0.00200	46.7	26.6	5.38	97.6	64.8	118	244	--	594
Dup-1 (MW-2)	02/25/2022	<0.000800	<0.00200	<0.00200	<0.00200	48.1	28.4	5.61	113	71.1	118	254	--	598
Dup-1 (MW-2)	05/18/2022	<0.00800	<0.00200	<0.00200	<0.00200	53.9	28.9	5.09	111	78	129	265	--	650

Notes: Analysis performed by DHL Analytical, Inc., Round, Rock, Texas
Samples analyzed by EPA method SW-8021B (BTEX), SW-8015M (TPH), E-300 (chloride and sulfate), SW-6020B (cations), M-2540C (TDS), M-2320B (alkalinity)
mg/L: milligrams per liter - equivalent to parts per million (ppm)
Bold and highlighted denotes concentration exceed New Mexico Water Quality Control Commission (WQCC) domestic water quality standard

Figures

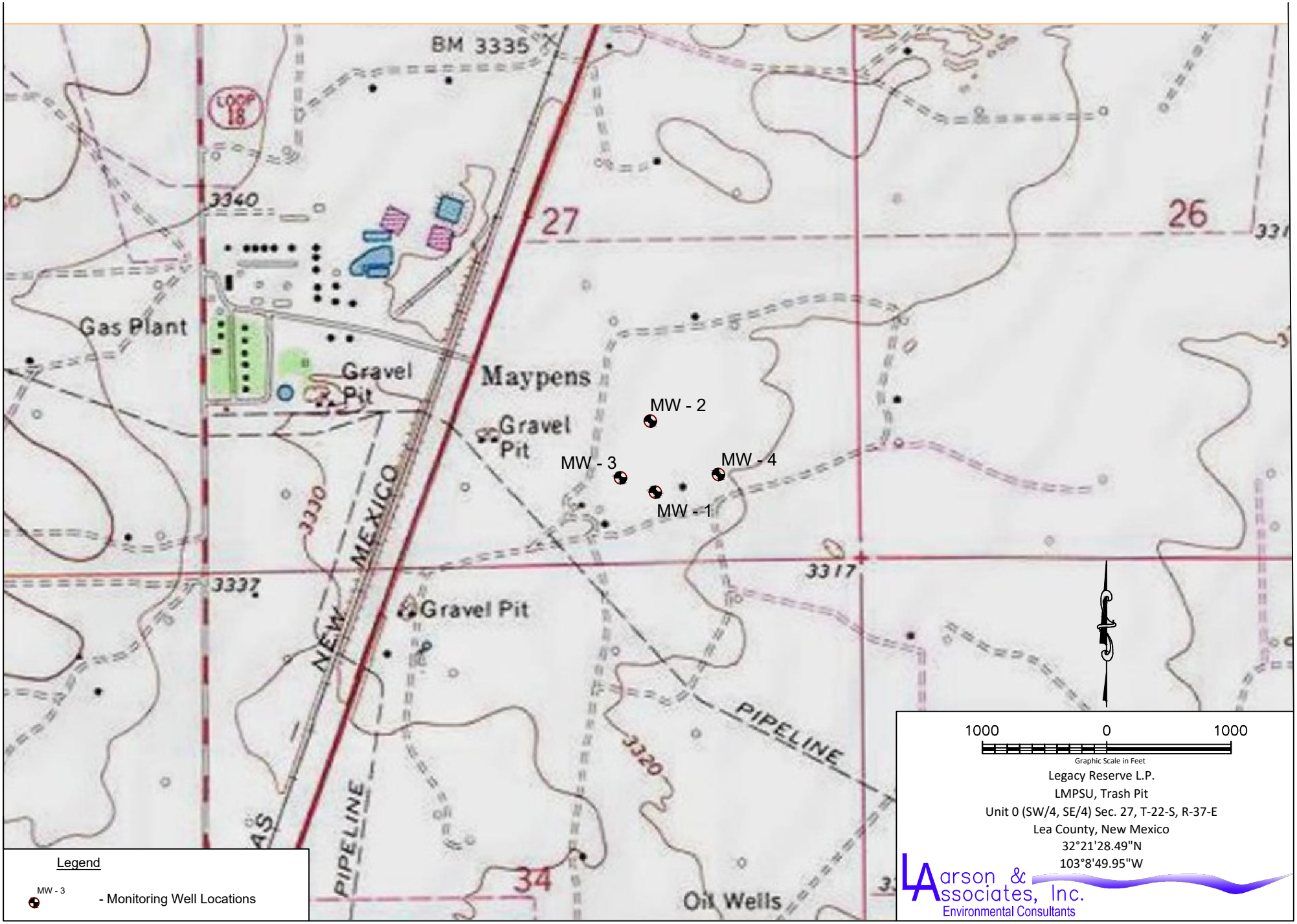

Figure 1 - Topographic Map

11" x 8.5"

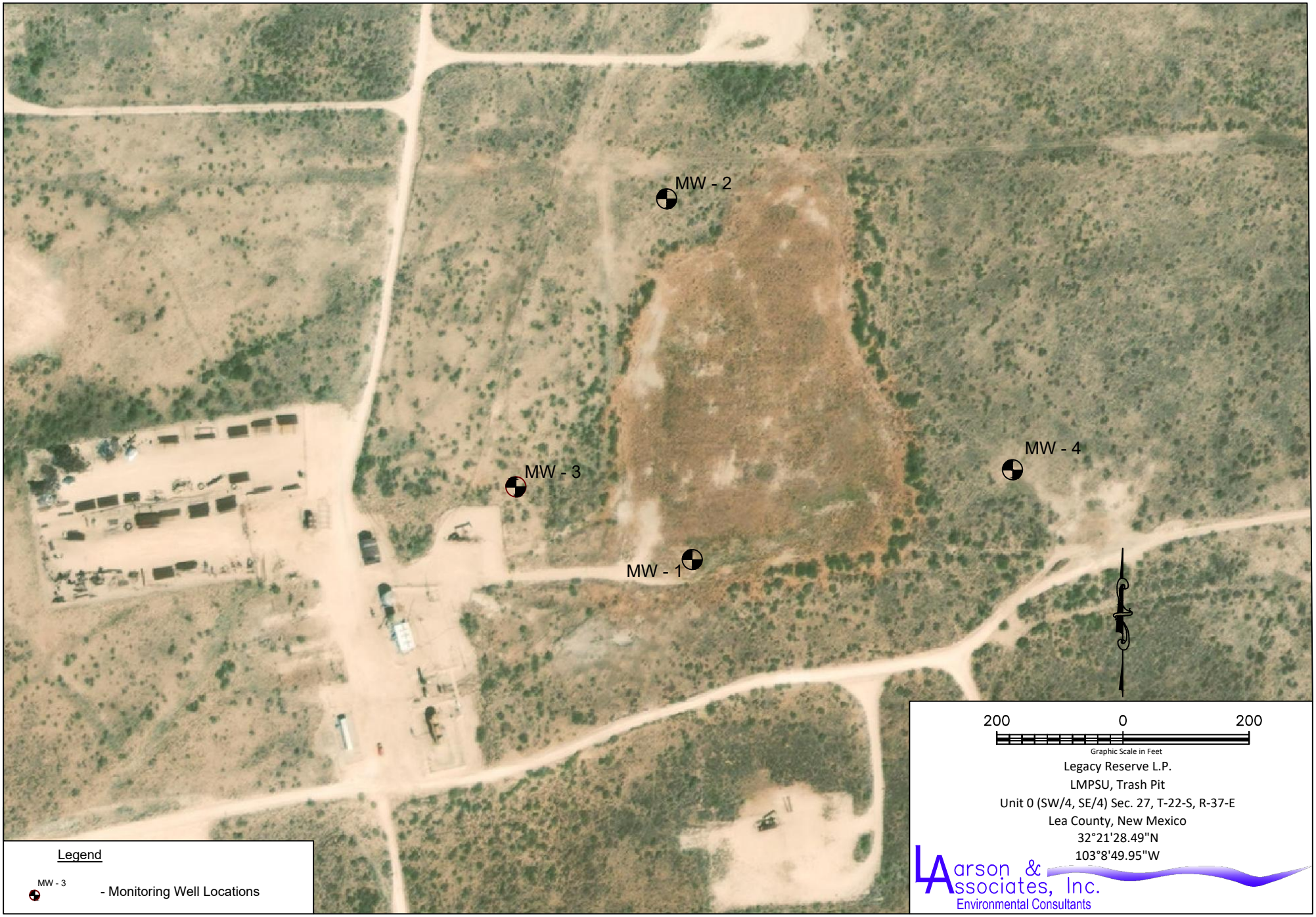

Figure 2 - Aerial Map

11" x 8.5"

Received by OCD: 8/22/2022 3:06:35 PM

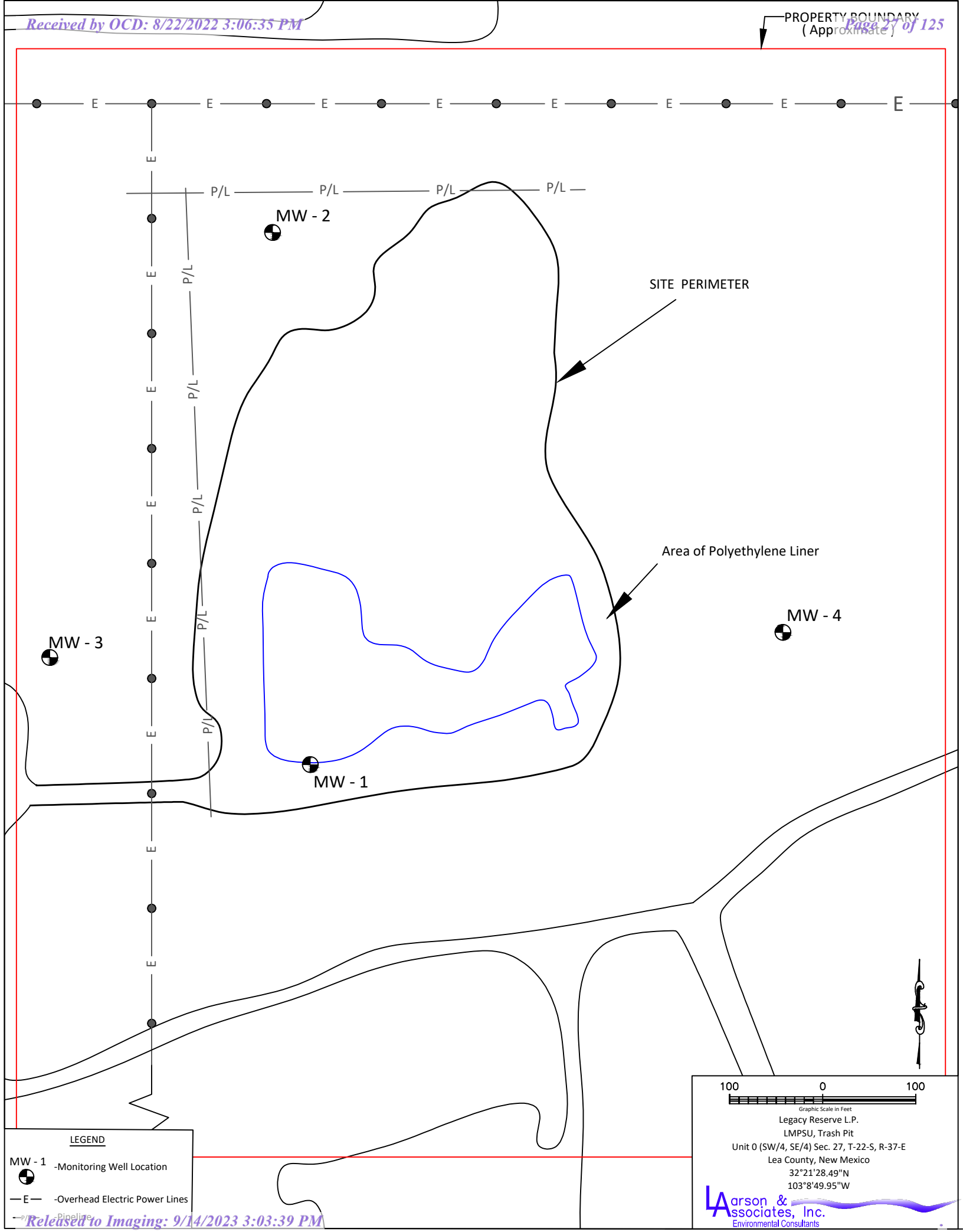

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Figure 3 - Site Map

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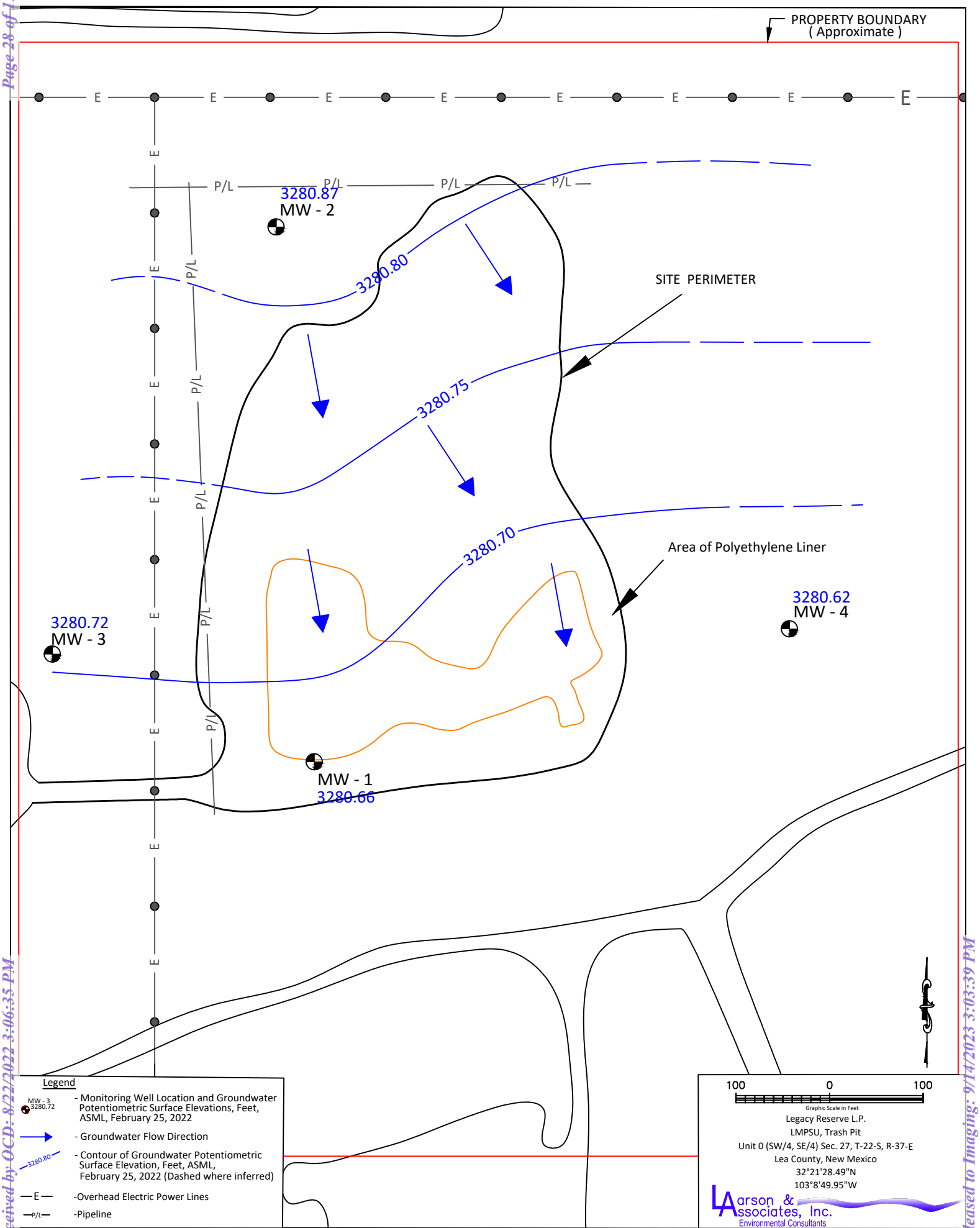

gure 4a - Groundwater Potentiometric Map, February 25, 2022

Received by OCD: 8/22/2022 3:06:35 PM

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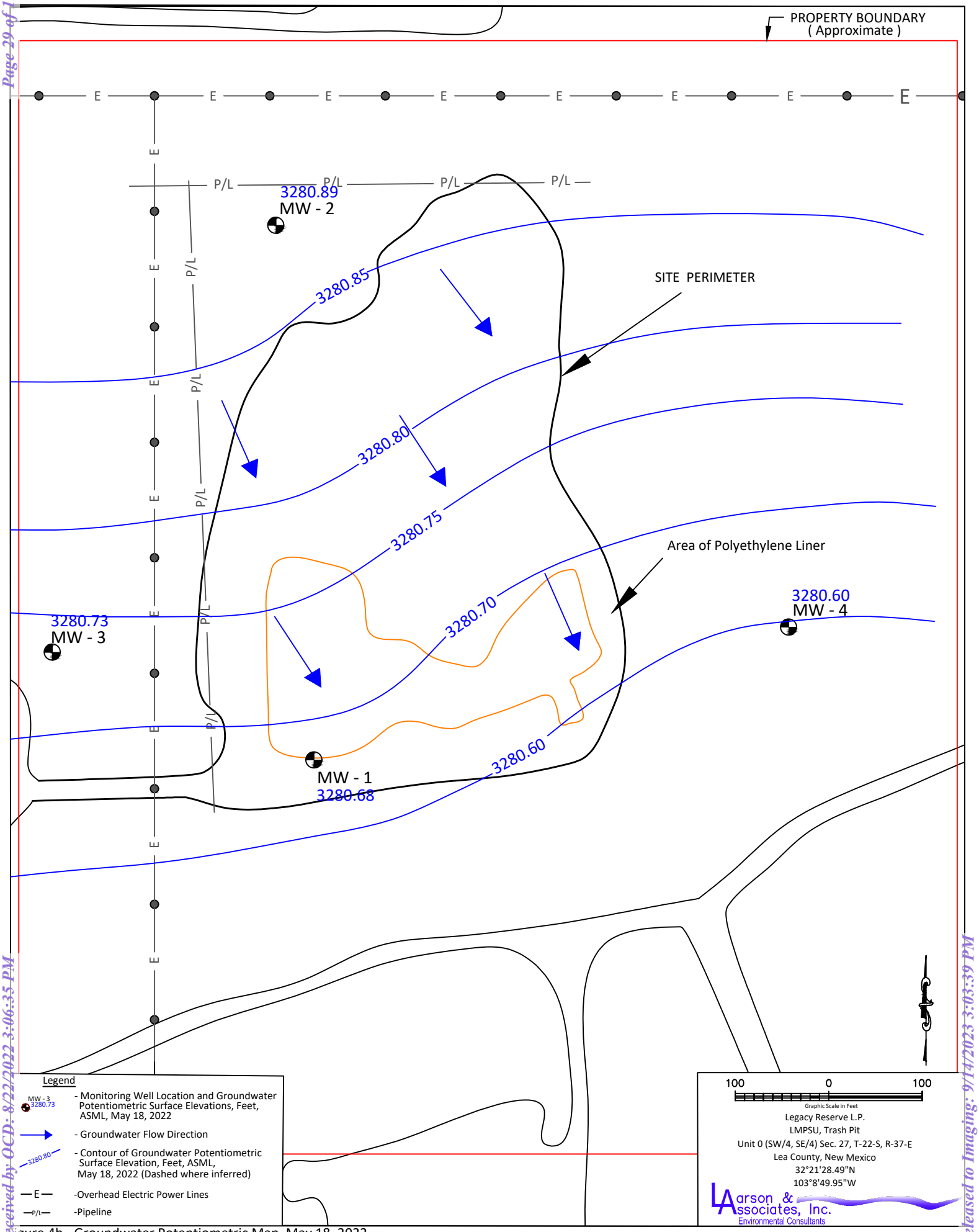

Figure 4b - Groundwater Potentiometric Map, May 18, 2022

Received by OCD: 8/22/2022 3:06:35 PM

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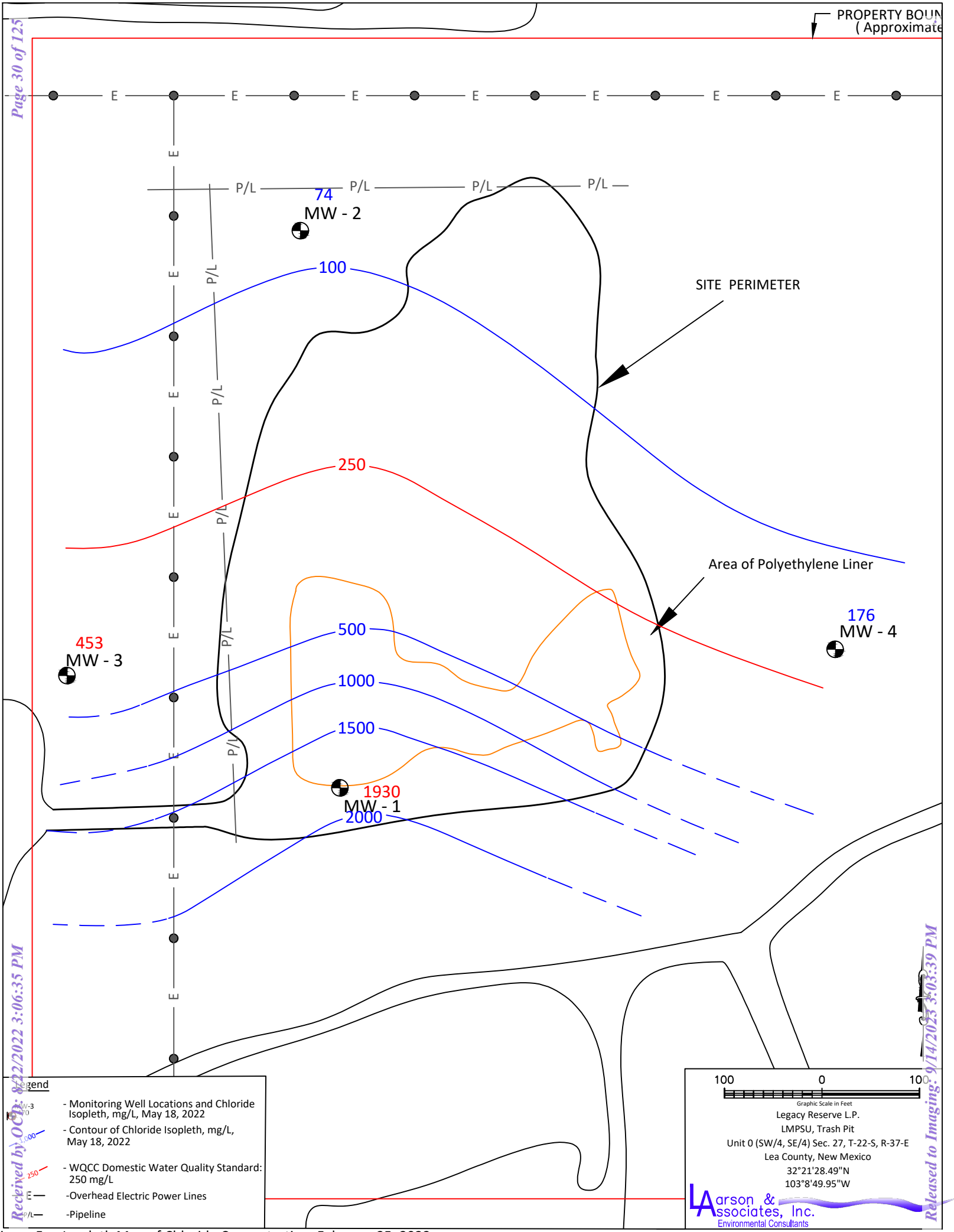

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Figure 5a - Isopleth Map of Chloride Concentration, February 25, 2022

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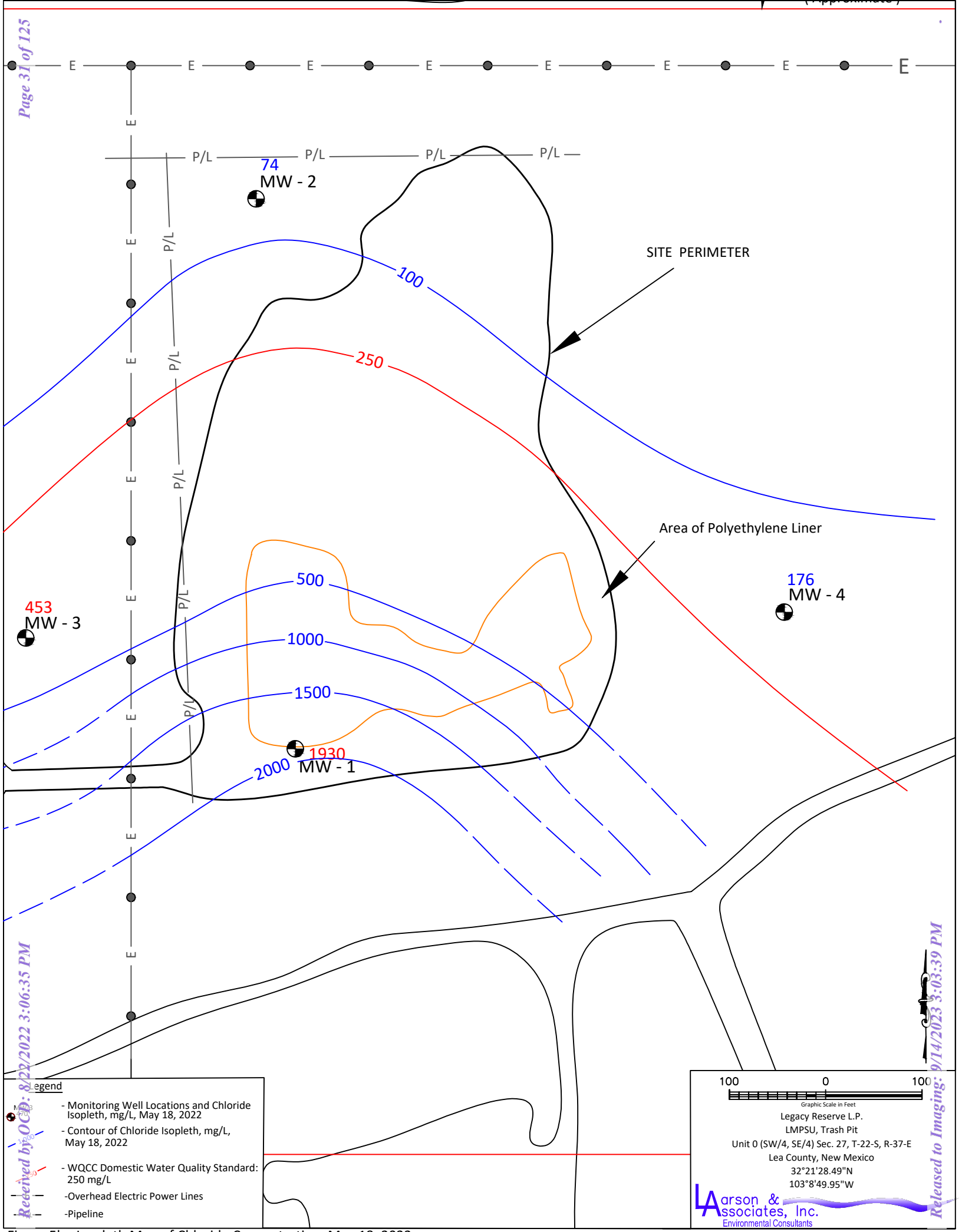
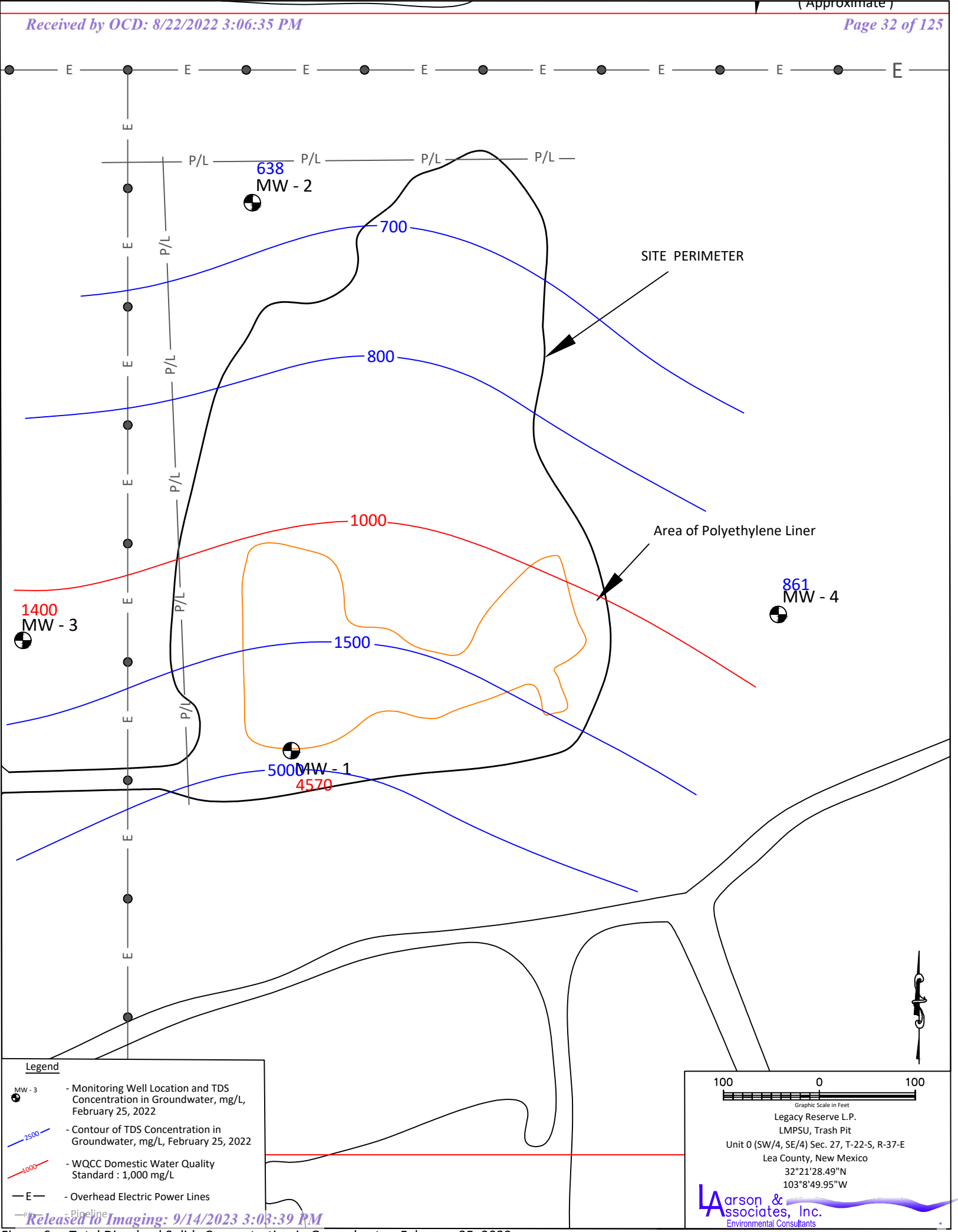


Received by OCD: 8/22/2022 3:06:35 PM

Released to Imaging: 9/14/2023 3:03:39 PM

Figure 5b - Isopleth Map of Chloride Concentration, May 18, 2022

(Approximate)



Released to Imaging: 9/14/2023 3:03:39 PM

Figure 6a - Total Dissolved Solids Concentration in Groundwater, February 25, 2022

(Approximate)

E E E E E E E E E

P/L P/L P/L P/L

650
MW - 2

700

800

1000

1500

5000

SITE PERIMETER

Area of Polyethylene Liner

1370
MW - 3

880
MW - 4

MW - 1
4550

Legend

MW - 3 - Monitoring Well Location and TDS Concentration in Groundwater, mg/L, May 18, 2022

2500 - Contour of TDS Concentration in Groundwater, mg/L, May 18, 2022

1000 - WQCC Domestic Water Quality Standard : 1,000 mg/L

E - Overhead Electric Power Lines

P/L - Pipeline

100 0 100
Graphic Scale in Feet

Legacy Reserve L.P.
LMPSU, Trash Pit
Unit 0 (SW/4, SE/4) Sec. 27, T-22-S, R-37-E
Lea County, New Mexico
32°21'28.49"N
103°8'49.95"W

Larson & Associates, Inc.
Environmental Consultants

Released to Imaging: 9/14/2023 3:03:39 PM

Figure 6b - Total Dissolved Solids Concentration in Groundwater, May 18, 2022

Appendix A

NMOCD Communications

From: Billings, Bradford, EMNRD
To: Robert Nelson
Subject: RE: [EXTERNAL] Legacy Reserves LMPSU Trash Pit (1RP-3660) Groundwater Sampling Notice
Date: Friday, February 18, 2022 3:31:30 PM
Attachments: image001.png

Thank you for the notification. Please keep a copy of this communication, as we will be asking for them in future reports. State wide. Thanks again.

Bradford Billings
EMNRD/OCD

From: Robert Nelson <rnelson@laenvironmental.com>
Sent: Friday, February 18, 2022 2:29 PM
To: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Cc: hloftin@legacyreserves.com; Mark Larson <Mark@laenvironmental.com>
Subject: [EXTERNAL] Legacy Reserves LMPSU Trash Pit (1RP-3660) Groundwater Sampling Notice

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hello Bradford,

This message is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Legacy Reserves, L.P. (Legacy) to provide notification that personnel from Larson & Associates, Inc. (LAI) will be at the LMPSU Trash Pit (1RP-3660) on February 25, 2022, at approximately 9:00am MST for the purpose of collecting groundwater samples from four (4) monitoring wells. Please feel free to contact Heath Loftin with Legacy at (432)689-5200 or hloftin@legacyreserves.com, or Mark Larson at (432)687-0901 or mark@laenvironmental.com, or me if you have any questions.

Thank you,

Robert Nelson
Sr. Geologist
Office – 432-687-0901
Cell – 432-664-4804
rnelson@laenvironmental.com

From: Billings, Bradford, EMNRD
To: Robert Nelson
Cc: hloftin@legacyreserves.com; Mark Larson
Subject: RE: [EXTERNAL] Legacy Reserves LMPSU Trash Pit (1RP-3660) Groundwater Sampling Notice
Date: Thursday, May 12, 2022 1:10:56 PM
Attachments: image001.png

Hello,

Thank you for the notification. Please include this communication in associated report(s).

Bradford Billings
EMNRD/OCD

From: Robert Nelson <rnelson@laenvironmental.com>
Sent: Thursday, May 12, 2022 11:38 AM
To: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Cc: hloftin@legacyreserves.com; Mark Larson <Mark@laenvironmental.com>
Subject: [EXTERNAL] Legacy Reserves LMPSU Trash Pit (1RP-3660) Groundwater Sampling Notice

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hello Bradford,

This message is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Legacy Reserves, L.P. (Legacy) to provide notification that personnel from Larson & Associates, Inc. (LAI) will be at the LMPSU Trash Pit (1RP-3660) on May 18, 2022, at approximately 9:00am MST for the purpose of collecting groundwater samples from four (4) monitoring wells. Please feel free to contact Heath Loftin with Legacy at (432)689-5200 or hloftin@legacyreserves.com, or Mark Larson at (432)687-0901 or mark@laenvironmental.com, or me if you have any questions.

Thank you,

Robert Nelson
Sr. Geologist
Office – 432-687-0901
Cell – 432-664-4804
rnelson@laenvironmental.com

Larson & Associates, Inc.
Environmental Consultants

Appendix B

Laboratory Reports

March 10, 2022

Mark Larson
Larson & Associates
507 N. Marienfeld #202
Midland, TX 79701
TEL: (432) 687-0901
FAX (432) 687-0456

Order No.: 2203004

RE: LMPSU Trash Pit

Dear Mark Larson:

DHL Analytical, Inc. received 5 sample(s) on 3/1/2022 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAP except where noted in the Case Narrative. All non-NELAP methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-21-27

Table of Contents

Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

№ 1916

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

Data Reported to: M. Larson

DATE: 2/28/2022 PAGE 1 OF 1
PO#: LAB WORK ORDER#: 2203004
PROJECT LOCATION OR NAME: LMPSU TRASH PIT
LAI PROJECT #: 14:0107-01 COLLECTOR: DSG/JR

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST ~~PST~~ / NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESSERVED	ANALYSES: BTEX ☒ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ D.W. 200.8 ☐ OTHER LIST ☐	LEAD - TOTAL ☐ TOX ☐ FLASHPOINT ☐	RCI ☐ TOX ☐ TCLP ☐	TDS ☒ TSS ☐ % MOISTURE ☐ CYANIDE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES ☒ ANIONS ☐ ALKALINITY ☒	SULFATE	DISSOLVED CATIONS	FIELD NOTES
MW-2	01	2/25/22	1010	W	5	3			X		X													X			X	X	X		
MW-4	02	"	1045	W	5	3			X		X													X			X	X	X		
MW-3	03	"	1115	W	5	3			X		X													X			X	X	X		
MW-1	04	"	1145	W	5	3			X		X													X			X	X	X		
DUP-1	05	"	—	W	5	3			X		X													X			X	X	X		
TOTAL	5				5																											

RELINQUISHED BY:(Signature) DATE/TIME: 02-28-2022 RECEIVED BY: (Signature) FedEx
RELINQUISHED BY:(Signature) FedEx DATE/TIME: 3/1/22 0915 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY: Dall

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 3.7°C THERM#: 78
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL # Via FedEx
☐ HAND DELIVERED

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ORIGIN ID:MAFA (432) 687-0901
MARK LARSON

507 N MARIENFELD ST STE 202

MIDLAND, TX 79701
UNITED STATES US

SHIP DATE: 28FEB22
ACTWGT: 20.00 LB
CAD: 7074331/INET4460
DIMS: 25x14x14 IN

BILL SENDER

TO JOHN DUPONT
DHL ANALYTICAL, INC
2300 DOUBLE CREEK DRIVE

ROUND ROCK TX 78664
(512) 388-8222 REF:
INV:
PO: DEPT:

56DJ3/90B8/FE4A

FedEx Express

J221022010501uv

TUE - 01 MAR 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7761 6360 1302

78664
TX-US AUS

A8 BSMA

CUSTODY SEAL

DATE 02-28-202

SIGNATURE

DHL ANALYTICAL

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name **Larson & Associates** Date Received: **3/1/2022**

Work Order Number **2203004** Received by: **RA**

Checklist completed by: _____ 3/1/2022 Reviewed by SH 3/1/2022
Signature | Date | Initials | Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	**3.7** °C
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

Page 1 of 1

DHL Analytical, Inc. **Date:** *10-Mar-22*

CLIENT: Larson & Associates
Project: LMPSU Trash Pit
Lab Order: 2203004

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Method SW6020B - Dissolved Metals Analysis
Method SW8260D - Volatile Aromatics Analysis
Method E300 - Anions Analysis
Method M2320 B - Alkalinity Analysis
Method M2540C - Total Dissolved Solids Analysis

LOG IN

The samples were received and log-in performed on 3/1/2022. A total of 5 samples were received and analyzed. The samples arrived in good condition and were properly packaged. Samples were collected in the Mountain Standard Time Zone.

ANIONS ANALYSIS

For Anions Analysis, the recoveries of Chloride/Sulfate for the Matrix Spike and Matrix Spike Duplicate(s) (2203004-04 and 2203009-03 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These anions were within method control limits in the associated LCS. No further corrective action was taken.

DISSOLVED METALS ANALYSIS

For Dissolved Metals Analysis, the recovery of Sodium for the Matrix Spike and Matrix Spike Duplicate (2203004-02 MS/MSD) was above the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated LCS. No further corrective action was taken.

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT: Larson & Associates
Project: LMPSU Trash Pit
Lab Order: 2203004

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2203004-01	MW-2		02/25/22 10:10 AM	3/1/2022
2203004-02	MW-4		02/25/22 10:45 AM	3/1/2022
2203004-03	MW-3		02/25/22 11:15 AM	3/1/2022
2203004-04	MW-1		02/25/22 11:45 AM	3/1/2022
2203004-05	DUP-1		02/25/22	3/1/2022

Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

DHL Analytical, Inc.

10-Mar-22

Lab Order: 2203004
Client: Larson & Associates
Project: LMPSU Trash Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2203004-01A	MW-2	02/25/22 10:10 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/05/22 08:58 AM	104225
2203004-01B	MW-2	02/25/22 10:10 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
	MW-2	02/25/22 10:10 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
2203004-01D	MW-2	02/25/22 10:10 AM	Aqueous	M2320 B	Alkalinity Preparation	03/04/22 10:34 AM	104215
	MW-2	02/25/22 10:10 AM	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	MW-2	02/25/22 10:10 AM	Aqueous	M2540C	TDS Preparation	03/01/22 11:32 AM	104160
2203004-02A	MW-4	02/25/22 10:45 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/05/22 08:58 AM	104225
2203004-02B	MW-4	02/25/22 10:45 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
	MW-4	02/25/22 10:45 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
2203004-02D	MW-4	02/25/22 10:45 AM	Aqueous	M2320 B	Alkalinity Preparation	03/04/22 10:34 AM	104215
	MW-4	02/25/22 10:45 AM	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	MW-4	02/25/22 10:45 AM	Aqueous	M2540C	TDS Preparation	03/01/22 11:32 AM	104160
2203004-03A	MW-3	02/25/22 11:15 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/05/22 08:58 AM	104225
2203004-03B	MW-3	02/25/22 11:15 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
	MW-3	02/25/22 11:15 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
2203004-03D	MW-3	02/25/22 11:15 AM	Aqueous	M2320 B	Alkalinity Preparation	03/04/22 10:34 AM	104215
	MW-3	02/25/22 11:15 AM	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	MW-3	02/25/22 11:15 AM	Aqueous	M2540C	TDS Preparation	03/01/22 11:32 AM	104160
2203004-04A	MW-1	02/25/22 11:45 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/05/22 08:58 AM	104225
2203004-04B	MW-1	02/25/22 11:45 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
	MW-1	02/25/22 11:45 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
2203004-04D	MW-1	02/25/22 11:45 AM	Aqueous	M2320 B	Alkalinity Preparation	03/04/22 10:34 AM	104215
	MW-1	02/25/22 11:45 AM	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	MW-1	02/25/22 11:45 AM	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	MW-1	02/25/22 11:45 AM	Aqueous	M2540C	TDS Preparation	03/01/22 11:32 AM	104160
2203004-05A	DUP-1	02/25/22	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/05/22 08:58 AM	104225
2203004-05B	DUP-1	02/25/22	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
	DUP-1	02/25/22	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246

Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

DHL Analytical, Inc.

10-Mar-22

Lab Order: 2203004
Client: Larson & Associates
Project: LMPSU Trash Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2203004-05D	DUP-1	02/25/22	Aqueous	M2320 B	Alkalinity Preparation	03/04/22 10:34 AM	104215
	DUP-1	02/25/22	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	DUP-1	02/25/22	Aqueous	M2540C	TDS Preparation	03/01/22 11:32 AM	104160

Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

Lab Order: 2203004
Client: Larson & Associates
Project: LMPSU Trash Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2203004-01A	MW-2	Aqueous	SW8260D	Volatile Aromatics by GC/MS	104225	1	03/05/22 05:05 PM	GCMS3_220305A
2203004-01B	MW-2	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	1	03/08/22 11:56 AM	ICP-MS5_220308B
	MW-2	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	10	03/08/22 12:25 PM	ICP-MS5_220308B
2203004-01D	MW-2	Aqueous	M2320 B	Alkalinity	104215	1	03/04/22 01:13 PM	TITRATOR_220304A
	MW-2	Aqueous	E300	Anions by IC method - Water	104179	10	03/02/22 08:15 PM	IC4_220302B
	MW-2	Aqueous	M2540C	Total Dissolved Solids	104160	1	03/01/22 05:45 PM	WC_220301D
2203004-02A	MW-4	Aqueous	SW8260D	Volatile Aromatics by GC/MS	104225	1	03/05/22 05:31 PM	GCMS3_220305A
2203004-02B	MW-4	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	1	03/08/22 11:51 AM	ICP-MS5_220308B
	MW-4	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	10	03/08/22 12:20 PM	ICP-MS5_220308B
2203004-02D	MW-4	Aqueous	M2320 B	Alkalinity	104215	1	03/04/22 01:24 PM	TITRATOR_220304A
	MW-4	Aqueous	E300	Anions by IC method - Water	104179	10	03/02/22 08:34 PM	IC4_220302B
	MW-4	Aqueous	M2540C	Total Dissolved Solids	104160	1	03/01/22 05:45 PM	WC_220301D
2203004-03A	MW-3	Aqueous	SW8260D	Volatile Aromatics by GC/MS	104225	1	03/05/22 05:57 PM	GCMS3_220305A
2203004-03B	MW-3	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	20	03/08/22 12:28 PM	ICP-MS5_220308B
	MW-3	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	1	03/08/22 11:59 AM	ICP-MS5_220308B
2203004-03D	MW-3	Aqueous	M2320 B	Alkalinity	104215	1	03/04/22 01:32 PM	TITRATOR_220304A
	MW-3	Aqueous	E300	Anions by IC method - Water	104179	10	03/02/22 10:09 PM	IC4_220302B
	MW-3	Aqueous	M2540C	Total Dissolved Solids	104160	1	03/01/22 05:45 PM	WC_220301D
2203004-04A	MW-1	Aqueous	SW8260D	Volatile Aromatics by GC/MS	104225	1	03/05/22 06:23 PM	GCMS3_220305A
2203004-04B	MW-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	1	03/08/22 12:01 PM	ICP-MS5_220308B
	MW-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	50	03/08/22 12:30 PM	ICP-MS5_220308B
2203004-04D	MW-1	Aqueous	M2320 B	Alkalinity	104215	1	03/04/22 02:00 PM	TITRATOR_220304A
	MW-1	Aqueous	E300	Anions by IC method - Water	104179	100	03/02/22 05:24 PM	IC4_220302B
	MW-1	Aqueous	E300	Anions by IC method - Water	104179	10	03/02/22 10:28 PM	IC4_220302B
	MW-1	Aqueous	M2540C	Total Dissolved Solids	104160	1	03/01/22 05:45 PM	WC_220301D
2203004-05A	DUP-1	Aqueous	SW8260D	Volatile Aromatics by GC/MS	104225	1	03/05/22 06:50 PM	GCMS3_220305A
2203004-05B	DUP-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	1	03/08/22 12:04 PM	ICP-MS5_220308B
	DUP-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	10	03/08/22 12:33 PM	ICP-MS5_220308B

Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

Lab Order: 2203004
Client: Larson & Associates
Project: LMPSU Trash Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2203004-05D	DUP-1	Aqueous	M2320 B	Alkalinity	104215	1	03/04/22 02:16 PM	TITRATOR_220304A
	DUP-1	Aqueous	E300	Anions by IC method - Water	104179	10	03/02/22 10:47 PM	IC4_220302B
	DUP-1	Aqueous	M2540C	Total Dissolved Solids	104160	1	03/01/22 05:45 PM	WC_220301D

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-2
Project:	LMPSU Trash Pit	**Lab ID:**	2203004-01
Project No:	14-0107-01	**Collection Date:**	02/25/22 10:10 AM
Lab Order:	2203004	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	03/05/22 05:05 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:05 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:05 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:05 PM
Surr: 1,2-Dichloroethane-d4	102	0	72-119		%REC	1	03/05/22 05:05 PM
Surr: 4-Bromofluorobenzene	102	0	76-119		%REC	1	03/05/22 05:05 PM
Surr: Dibromofluoromethane	103	0	85-115		%REC	1	03/05/22 05:05 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	03/05/22 05:05 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	50.4	1.00	3.00		mg/L	10	03/08/22 12:25 PM
Dissolved Magnesium	29.8	1.00	3.00		mg/L	10	03/08/22 12:25 PM
Dissolved Potassium	5.74	0.100	0.300		mg/L	1	03/08/22 11:56 AM
Dissolved Sodium	118	1.00	3.00		mg/L	10	03/08/22 12:25 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	73.7	3.00	10.0		mg/L	10	03/02/22 08:15 PM
Sulfate	124	10.0	30.0		mg/L	10	03/02/22 08:15 PM
ALKALINITY		**M2320 B**					Analyst: **BM**
Alkalinity, Bicarbonate (As CaCO3)	264	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:13 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:13 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:13 PM
Alkalinity, Total (As CaCO3)	264	20.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:13 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	638	10.0	10.0		mg/L	1	03/01/22 05:45 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-4
Project:	LMPSU Trash Pit	**Lab ID:**	2203004-02
Project No:	14-0107-01	**Collection Date:**	02/25/22 10:45 AM
Lab Order:	2203004	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	03/05/22 05:31 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:31 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:31 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:31 PM
Surr: 1,2-Dichloroethane-d4	102	0	72-119		%REC	1	03/05/22 05:31 PM
Surr: 4-Bromofluorobenzene	101	0	76-119		%REC	1	03/05/22 05:31 PM
Surr: Dibromofluoromethane	103	0	85-115		%REC	1	03/05/22 05:31 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	03/05/22 05:31 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	62.0	1.00	3.00		mg/L	10	03/08/22 12:20 PM
Dissolved Magnesium	42.7	1.00	3.00		mg/L	10	03/08/22 12:20 PM
Dissolved Potassium	7.83	0.100	0.300		mg/L	1	03/08/22 11:51 AM
Dissolved Sodium	165	1.00	3.00		mg/L	10	03/08/22 12:20 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	176	3.00	10.0		mg/L	10	03/02/22 08:34 PM
Sulfate	200	10.0	30.0		mg/L	10	03/02/22 08:34 PM
ALKALINITY		**M2320 B**					Analyst: **BM**
Alkalinity, Bicarbonate (As CaCO3)	256	10.0	20.0		mg/L @ pH 4.55	1	03/04/22 01:24 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.55	1	03/04/22 01:24 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.55	1	03/04/22 01:24 PM
Alkalinity, Total (As CaCO3)	256	20.0	20.0		mg/L @ pH 4.55	1	03/04/22 01:24 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	861	10.0	10.0		mg/L	1	03/01/22 05:45 PM

Qualifiers:					
	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-3
Project:	LMPSU Trash Pit	**Lab ID:**	2203004-03
Project No:	14-0107-01	**Collection Date:**	02/25/22 11:15 AM
Lab Order:	2203004	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	03/05/22 05:57 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:57 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:57 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:57 PM
Surr: 1,2-Dichloroethane-d4	103	0	72-119		%REC	1	03/05/22 05:57 PM
Surr: 4-Bromofluorobenzene	103	0	76-119		%REC	1	03/05/22 05:57 PM
Surr: Dibromofluoromethane	103	0	85-115		%REC	1	03/05/22 05:57 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	03/05/22 05:57 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	65.4	2.00	6.00		mg/L	20	03/08/22 12:28 PM
Dissolved Magnesium	72.3	2.00	6.00		mg/L	20	03/08/22 12:28 PM
Dissolved Potassium	9.57	0.100	0.300		mg/L	1	03/08/22 11:59 AM
Dissolved Sodium	296	2.00	6.00		mg/L	20	03/08/22 12:28 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	453	3.00	10.0		mg/L	10	03/02/22 10:09 PM
Sulfate	266	10.0	30.0		mg/L	10	03/02/22 10:09 PM
ALKALINITY		**M2320 B**					Analyst: **BM**
Alkalinity, Bicarbonate (As CaCO3)	195	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:32 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:32 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:32 PM
Alkalinity, Total (As CaCO3)	195	20.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:32 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	1400	50.0	50.0		mg/L	1	03/01/22 05:45 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-1
Project:	LMPSU Trash Pit	**Lab ID:**	2203004-04
Project No:	14-0107-01	**Collection Date:**	02/25/22 11:45 AM
Lab Order:	2203004	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	03/05/22 06:23 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:23 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:23 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:23 PM
Surr: 1,2-Dichloroethane-d4	104	0	72-119		%REC	1	03/05/22 06:23 PM
Surr: 4-Bromofluorobenzene	102	0	76-119		%REC	1	03/05/22 06:23 PM
Surr: Dibromofluoromethane	105	0	85-115		%REC	1	03/05/22 06:23 PM
Surr: Toluene-d8	103	0	81-120		%REC	1	03/05/22 06:23 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	170	5.00	15.0		mg/L	50	03/08/22 12:30 PM
Dissolved Magnesium	278	5.00	15.0		mg/L	50	03/08/22 12:30 PM
Dissolved Potassium	18.2	0.100	0.300		mg/L	1	03/08/22 12:01 PM
Dissolved Sodium	1100	5.00	15.0		mg/L	50	03/08/22 12:30 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	1930	30.0	100		mg/L	100	03/02/22 05:24 PM
Sulfate	690	10.0	30.0		mg/L	10	03/02/22 10:28 PM
ALKALINITY		**M2320 B**					Analyst: **BM**
Alkalinity, Bicarbonate (As CaCO3)	638	10.0	20.0		mg/L @ pH 4.54	1	03/04/22 02:00 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	03/04/22 02:00 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	03/04/22 02:00 PM
Alkalinity, Total (As CaCO3)	638	20.0	20.0		mg/L @ pH 4.54	1	03/04/22 02:00 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	4570	50.0	50.0		mg/L	1	03/01/22 05:45 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	DUP-1
Project:	LMPSU Trash Pit	**Lab ID:**	2203004-05
Project No:	14-0107-01	**Collection Date:**	02/25/22
Lab Order:	2203004	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	03/05/22 06:50 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:50 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:50 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:50 PM
Surr: 1,2-Dichloroethane-d4	104	0	72-119		%REC	1	03/05/22 06:50 PM
Surr: 4-Bromofluorobenzene	101	0	76-119		%REC	1	03/05/22 06:50 PM
Surr: Dibromofluoromethane	103	0	85-115		%REC	1	03/05/22 06:50 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	03/05/22 06:50 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	48.1	1.00	3.00		mg/L	10	03/08/22 12:33 PM
Dissolved Magnesium	28.4	1.00	3.00		mg/L	10	03/08/22 12:33 PM
Dissolved Potassium	5.61	0.100	0.300		mg/L	1	03/08/22 12:04 PM
Dissolved Sodium	113	1.00	3.00		mg/L	10	03/08/22 12:33 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	71.1	3.00	10.0		mg/L	10	03/02/22 10:47 PM
Sulfate	118	10.0	30.0		mg/L	10	03/02/22 10:47 PM
ALKALINITY		**M2320 B**					Analyst: **BM**
Alkalinity, Bicarbonate (As CaCO3)	254	10.0	20.0		mg/L @ pH 4.53	1	03/04/22 02:16 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	03/04/22 02:16 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	03/04/22 02:16 PM
Alkalinity, Total (As CaCO3)	254	20.0	20.0		mg/L @ pH 4.53	1	03/04/22 02:16 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	598	10.0	10.0		mg/L	1	03/01/22 05:45 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc. **Date:** *10-Mar-22*

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS3_220305A

The QC data in batch 104225 applies to the following samples: 2203004-01A, 2203004-02A, 2203004-03A, 2203004-04A, 2203004-05A

Sample ID: **LCS-104225** Batch ID: **104225** TestNo: **SW8260D** Units: **mg/L**
SampType: **LCS** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 10:54:00 AM** Prep Date: **3/5/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0234	0.00200	0.0232	0	101	81	122			
Ethylbenzene	0.0229	0.00600	0.0232	0	98.7	73	127			
Toluene	0.0234	0.00600	0.0232	0	101	77	122			
Total Xylenes	0.0690	0.00600	0.0696	0	99.1	80	121			
Surr: 1,2-Dichloroethane-d4	211		200.0		105	72	119			
Surr: 4-Bromofluorobenzene	207		200.0		103	76	119			
Surr: Dibromofluoromethane	209		200.0		105	85	115			
Surr: Toluene-d8	204		200.0		102	81	120			

Sample ID: **MB-104225** Batch ID: **104225** TestNo: **SW8260D** Units: **mg/L**
SampType: **MBLK** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 11:20:00 AM** Prep Date: **3/5/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	<0.000800	0.00200								
Ethylbenzene	<0.00200	0.00600								
Toluene	<0.00200	0.00600								
Total Xylenes	<0.00200	0.00600								
Surr: 1,2-Dichloroethane-d4	211		200.0		106	72	119			
Surr: 4-Bromofluorobenzene	203		200.0		101	76	119			
Surr: Dibromofluoromethane	208		200.0		104	85	115			
Surr: Toluene-d8	206		200.0		103	81	120			

Sample ID: **2202251-01AMS** Batch ID: **104225** TestNo: **SW8260D** Units: **mg/L**
SampType: **MS** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 7:43:00 PM** Prep Date: **3/5/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0231	0.00200	0.0232	0	99.6	81	122			
Ethylbenzene	0.0220	0.00600	0.0232	0	95.0	73	127			
Toluene	0.0230	0.00600	0.0232	0	99.2	77	122			
Total Xylenes	0.0680	0.00600	0.0696	0	97.7	80	121			
Surr: 1,2-Dichloroethane-d4	206		200.0		103	72	119			
Surr: 4-Bromofluorobenzene	211		200.0		105	76	119			
Surr: Dibromofluoromethane	206		200.0		103	85	115			
Surr: Toluene-d8	204		200.0		102	81	120			

Sample ID: **2202251-01AMSD** Batch ID: **104225** TestNo: **SW8260D** Units: **mg/L**
SampType: **MSD** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 8:09:00 PM** Prep Date: **3/5/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:			
B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS3_220305A

Sample ID: **2202251-01AMSD** Batch ID: **104225** TestNo: **SW8260D** Units: **mg/L**
SampType: **MSD** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 8:09:00 PM** Prep Date: **3/5/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0232	0.00200	0.0232	0	100	81	122	0.433	20	
Ethylbenzene	0.0222	0.00600	0.0232	0	95.8	73	127	0.908	20	
Toluene	0.0231	0.00600	0.0232	0	99.6	77	122	0.473	20	
Total Xylenes	0.0677	0.00600	0.0696	0	97.3	80	121	0.424	20	
Surr: 1,2-Dichloroethane-d4	206		200.0		103	72	119	0	0	
Surr: 4-Bromofluorobenzene	205		200.0		102	76	119	0	0	
Surr: Dibromofluoromethane	205		200.0		103	85	115	0	0	
Surr: Toluene-d8	203		200.0		102	81	120	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS3_220305A

Sample ID: **ICV-220305** Batch ID: **R119709** TestNo: **SW8260D** Units: **mg/L**
SampType: **ICV** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 10:27:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0454	0.00200	0.0464	0	97.8	70	130			
Ethylbenzene	0.0441	0.00600	0.0464	0	95.1	70	130			
Toluene	0.0455	0.00600	0.0464	0	98.0	70	130			
Total Xylenes	0.134	0.00600	0.139	0	96.4	70	130			
Surr: 1,2-Dichloroethane-d4	210		200.0		105	72	119			
Surr: 4-Bromofluorobenzene	208		200.0		104	76	119			
Surr: Dibromofluoromethane	207		200.0		103	85	115			
Surr: Toluene-d8	205		200.0		102	81	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220308B

The QC data in batch 104246 applies to the following samples: 2203004-01B, 2203004-02B, 2203004-03B, 2203004-04B, 2203004-05B

Sample ID: **MB-104246** Batch ID: **104246** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:38:00 AM** Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	<0.100	0.300								
Dissolved Magnesium	<0.100	0.300								
Dissolved Potassium	<0.100	0.300								
Dissolved Sodium	<0.100	0.300								

Sample ID: **MB-104168-FILTER** Batch ID: **104246** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:41:00 AM** Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	<0.100	0.300								
Dissolved Magnesium	<0.100	0.300								
Dissolved Potassium	<0.100	0.300								
Dissolved Sodium	<0.100	0.300								

Sample ID: **LCS-104246** Batch ID: **104246** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:44:00 AM** Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	5.06	0.300	5.00	0	101	80	120			
Dissolved Magnesium	5.19	0.300	5.00	0	104	80	120			
Dissolved Potassium	5.18	0.300	5.00	0	104	80	120			
Dissolved Sodium	5.34	0.300	5.00	0	107	80	120			

Sample ID: **LCSD-104246** Batch ID: **104246** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:46:00 AM** Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	5.00	0.300	5.00	0	100	80	120	1.17	15	
Dissolved Magnesium	5.15	0.300	5.00	0	103	80	120	0.899	15	
Dissolved Potassium	5.11	0.300	5.00	0	102	80	120	1.42	15	
Dissolved Sodium	5.30	0.300	5.00	0	106	80	120	0.594	15	

Sample ID: **2203004-02B SD** Batch ID: **104246** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:54:00 AM** Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	7.89	1.50	0	7.83				0.711	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220308B

Sample ID: **2203004-02B PDS**	Batch ID: **104246**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS5_220308B**	Analysis Date: **3/8/2022 12:06:00 PM**	Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	12.3	0.300	5.00	7.83	90.0	75	125			

Sample ID: **2203004-02B MS**	Batch ID: **104246**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS5_220308B**	Analysis Date: **3/8/2022 12:09:00 PM**	Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	66.5	0.300	5.00	61.7	97.3	75	125			
Dissolved Magnesium	47.3	0.300	5.00	41.8	109	75	125			
Dissolved Potassium	12.9	0.300	5.00	7.83	101	75	125			
Dissolved Sodium	165	0.300	5.00	158	137	75	125			S

Sample ID: **2203004-02B MSD**	Batch ID: **104246**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS5_220308B**	Analysis Date: **3/8/2022 12:11:00 PM**	Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	66.1	0.300	5.00	61.7	87.7	75	125	0.726	15	
Dissolved Magnesium	47.0	0.300	5.00	41.8	104	75	125	0.603	15	
Dissolved Potassium	12.8	0.300	5.00	7.83	99.1	75	125	0.652	15	
Dissolved Sodium	164	0.300	5.00	158	128	75	125	0.268	15	S

Sample ID: **2203004-02B SD**	Batch ID: **104246**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS5_220308B**	Analysis Date: **3/8/2022 12:22:00 PM**	Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	62.8	15.0	0	62.0				1.44	20	
Magnesium	42.8	15.0	0	42.7				0.217	20	
Sodium	166	15.0	0	165				0.545	20	

Sample ID: **2203004-02B PDS**	Batch ID: **104246**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS5_220308B**	Analysis Date: **3/8/2022 12:35:00 PM**	Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	112	3.00	50.0	62.0	101	75	125			
Magnesium	93.0	3.00	50.0	42.7	101	75	125			
Sodium	218	3.00	50.0	165	104	75	125			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220308B

Sample ID: **ICV-220308** Batch ID: **R119748** TestNo: **SW6020B** Units: **mg/L**
SampType: **ICV** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 10:41:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	2.53	0.300	2.50	0	101	90	110			
Dissolved Magnesium	2.47	0.300	2.50	0	98.7	90	110			
Dissolved Potassium	2.56	0.300	2.50	0	102	90	110			
Dissolved Sodium	2.64	0.300	2.50	0	105	90	110			

Sample ID: **LCVL-220308** Batch ID: **R119748** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCVL** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 10:46:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	0.107	0.300	0.100	0	107	80	120			
Dissolved Magnesium	0.101	0.300	0.100	0	101	80	120			
Dissolved Potassium	0.0915	0.300	0.100	0	91.5	80	120			
Dissolved Sodium	0.103	0.300	0.100	0	103	80	120			

Sample ID: **CCV1-220308** Batch ID: **R119748** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:32:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	4.98	0.300	5.00	0	99.6	90	110			
Dissolved Magnesium	5.11	0.300	5.00	0	102	90	110			
Dissolved Potassium	5.01	0.300	5.00	0	100	90	110			
Dissolved Sodium	5.22	0.300	5.00	0	104	90	110			

Sample ID: **CCV2-220308** Batch ID: **R119748** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 12:14:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	4.91	0.300	5.00	0	98.3	90	110			
Dissolved Magnesium	5.11	0.300	5.00	0	102	90	110			
Dissolved Potassium	4.96	0.300	5.00	0	99.1	90	110			
Dissolved Sodium	5.31	0.300	5.00	0	106	90	110			

Sample ID: **CCV3-220308** Batch ID: **R119748** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 12:38:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	4.94	0.300	5.00	0	98.8	90	110			
Dissolved Magnesium	5.14	0.300	5.00	0	103	90	110			
Dissolved Sodium	5.31	0.300	5.00	0	106	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_220302B

The QC data in batch 104179 applies to the following samples: 2203004-01D, 2203004-02D, 2203004-03D, 2203004-04D, 2203004-05D

Sample ID: **MB-104179** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **MBLK** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 2:01:46 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	<0.300	1.00								
Sulfate	<1.00	3.00								

Sample ID: **LCS-104179** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **LCS** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 2:20:46 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.3	1.00	10.00	0	103	90	110			
Sulfate	31.1	3.00	30.00	0	104	90	110			

Sample ID: **LCSD-104179** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **LCSD** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 2:39:46 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110	1.79	20	
Sulfate	31.0	3.00	30.00	0	103	90	110	0.500	20	

Sample ID: **2203009-03CMS** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 4:46:51 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	37800	1000	20000	20360	87.4	90	110			S
Sulfate	223000	3000	20000	217600	28.9	90	110			S

Sample ID: **2203009-03CMSD** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 5:05:51 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	37600	1000	20000	20360	86.2	90	110	0.670	20	S
Sulfate	223000	3000	20000	217600	27.5	90	110	0.122	20	S

Sample ID: **2203004-04DMS** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 5:43:51 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	3640	100	2000	1927	85.7	90	110			S
Sulfate	2580	300	2000	727.6	92.7	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_220302B

Sample ID: **2203004-04DMSD**	Batch ID: **104179**	TestNo: **E300**	Units: **mg/L**		
SampType: **MSD**	Run ID: **IC4_220302B**	Analysis Date: **3/2/2022 6:02:51 PM**	Prep Date: **3/2/2022**		

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	3610	100	2000	1927	84.2	90	110	0.837	20	S
Sulfate	2570	300	2000	727.6	91.9	90	110	0.629	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_220302B

Sample ID: **ICV-220302**	Batch ID: **R119657**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC4_220302B**	Analysis Date: **3/2/2022 1:23:46 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.5	1.00	25.00	0	102	90	110			
Sulfate	77.3	3.00	75.00	0	103	90	110			

Sample ID: **CCV1-220302**	Batch ID: **R119657**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC4_220302B**	Analysis Date: **3/2/2022 9:31:50 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.78	1.00	10.00	0	97.8	90	110			
Sulfate	29.8	3.00	30.00	0	99.4	90	110			

Sample ID: **CCV2-220302**	Batch ID: **R119657**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC4_220302B**	Analysis Date: **3/3/2022 1:57:50 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.79	1.00	10.00	0	97.9	90	110			
Sulfate	30.1	3.00	30.00	0	100	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_220304A

The QC data in batch 104215 applies to the following samples: 2203004-01D, 2203004-02D, 2203004-03D, 2203004-04D, 2203004-05D

Sample ID: **MB-104215** Batch ID: **104215** TestNo: **M2320 B** Units: **mg/L @ pH 4.27**
SampType: **MBLK** Run ID: **TITRATOR_220304A** Analysis Date: **3/4/2022 12:23:00 PM** Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID: **LCS-104215** Batch ID: **104215** TestNo: **M2320 B** Units: **mg/L @ pH 4.26**
SampType: **LCS** Run ID: **TITRATOR_220304A** Analysis Date: **3/4/2022 12:27:00 PM** Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	55.4	20.0	50.00	0	111	74	129			

Sample ID: **LCSD-104215** Batch ID: **104215** TestNo: **M2320 B** Units: **mg/L @ pH 4.21**
SampType: **LCSD** Run ID: **TITRATOR_220304A** Analysis Date: **3/4/2022 12:32:00 PM** Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	55.8	20.0	50.00	0	112	74	129	0.576	20	

Sample ID: **2203002-01D-DUP** Batch ID: **104215** TestNo: **M2320 B** Units: **mg/L @ pH 4.53**
SampType: **DUP** Run ID: **TITRATOR_220304A** Analysis Date: **3/4/2022 12:45:00 PM** Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	119	20.0	0	117.9				0.592	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	119	20.0	0	117.9				0.592	20	

Sample ID: **2203002-02D-DUP** Batch ID: **104215** TestNo: **M2320 B** Units: **mg/L @ pH 4.54**
SampType: **DUP** Run ID: **TITRATOR_220304A** Analysis Date: **3/4/2022 12:55:00 PM** Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	123	20.0	0	120.4				1.81	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	123	20.0	0	120.4				1.81	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_220304A

Sample ID: **ICV-220304**	Batch ID: **R119702**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.21**
SampType: **ICV**	Run ID: **TITRATOR_220304A**	Analysis Date: **3/4/2022 11:43:00 AM**	Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	18.0	20.0	0							
Alkalinity, Carbonate (As CaCO3)	83.8	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	102	20.0	100.0	0	102	98	102			

Sample ID: **CCV1-220304**	Batch ID: **R119702**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.18**
SampType: **CCV**	Run ID: **TITRATOR_220304A**	Analysis Date: **3/4/2022 2:06:00 PM**	Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	33.2	20.0	0							
Alkalinity, Carbonate (As CaCO3)	69.8	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	103	20.0	100.0	0	103	90	110			

Sample ID: **CCV2-220304**	Batch ID: **R119702**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.26**
SampType: **CCV**	Run ID: **TITRATOR_220304A**	Analysis Date: **3/4/2022 3:22:00 PM**	Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	27.0	20.0	0							
Alkalinity, Carbonate (As CaCO3)	74.9	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	102	20.0	100.0	0	102	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: WC_220301D

The QC data in batch 104160 applies to the following samples: 2203004-01D, 2203004-02D, 2203004-03D, 2203004-04D, 2203004-05D

Sample ID: **MB-104160**	Batch ID: **104160**	TestNo: **M2540C**	Units: **mg/L**
SampType: **MBLK**	Run ID: **WC_220301D**	Analysis Date: **3/1/2022 5:45:00 PM**	Prep Date: **3/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	<10.0	10.0								

Sample ID: **LCS-104160**	Batch ID: **104160**	TestNo: **M2540C**	Units: **mg/L**
SampType: **LCS**	Run ID: **WC_220301D**	Analysis Date: **3/1/2022 5:45:00 PM**	Prep Date: **3/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	751	10.0	745.6	0	101	90	113			

Sample ID: **2202255-08D-DUP**	Batch ID: **104160**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_220301D**	Analysis Date: **3/1/2022 5:45:00 PM**	Prep Date: **3/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	17600	200	0	17700				0.453	5	

Sample ID: **2202255-10D-DUP**	Batch ID: **104160**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_220301D**	Analysis Date: **3/1/2022 5:45:00 PM**	Prep Date: **3/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	5060	200	0	4900				3.21	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

March 10, 2022

Mark Larson
Larson & Associates
507 N. Marienfeld #202
Midland, TX 79701
TEL: (432) 687-0901
FAX (432) 687-0456

Order No.: 2203004

RE: LMPSU Trash Pit

Dear Mark Larson:

DHL Analytical, Inc. received 5 sample(s) on 3/1/2022 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAP except where noted in the Case Narrative. All non-NELAP methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-21-27

Table of Contents

Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

№ 1916

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

Data Reported to: M. Larson

DATE: 2/28/2022 PAGE 1 OF 1
PO#: LAB WORK ORDER#: 2203004
PROJECT LOCATION OR NAME: LMPSU TRASH PIT
LAI PROJECT #: 14:0107-01 COLLECTOR: DSG/JR

TRRP report? ☐ Yes ☒ No

TIME ZONE: Time zone/State: MST ~~PST~~ / NM

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESERVED

ANALYSES: BTEX ☒ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | OIL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☒ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDES ☒ ANIONS ☐ ALKALINITY ☒ | SULFATE | DISSOLVED CATIONS

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESERVED	BTEX	TDS	Cl	SO4	Dissolved Cations	FIELD NOTES
MW-2	01	2/25/22	1010	W	5	3			X		X	X	X	X	X	
MW-4	02	"	1045	W	5	3			X		X	X	X	X	X	
MW-3	03	"	1115	W	5	3			X		X	X	X	X	X	
MW-1	04	"	1145	W	5	3			X		X	X	X	X	X	
DUP-1	05	"	—	W	5	3			X		X	X	X	X	X	
TOTAL					5											

RELINQUISHED BY:(Signature) DATE/TIME: 02-28-2022 RECEIVED BY: (Signature) FedEx
RELINQUISHED BY:(Signature) FedEx DATE/TIME: 3/1/22 0915 RECEIVED BY: (Signature)
RELINQUISHED BY:(Signature) DATE/TIME RECEIVED BY: (Signature)

LABORATORY: Xenco

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 3.7°C THERM#: 78
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☐ CARRIER BILL # Via FedEx
☐ HAND DELIVERED

ORIGIN ID:MAFA (432) 687-0901
MARK LARSON

507 N MARIENFELD ST STE 202

MIDLAND, TX 79701
UNITED STATES US

SHIP DATE: 28FEB22
ACTWGT: 20.00 LB
CAD: 7074331/INET4460
DIMS: 25x14x14 IN

BILL SENDER

TO JOHN DUPONT
DHL ANALYTICAL, INC
2300 DOUBLE CREEK DRIVE

ROUND ROCK TX 78664
(512) 388-8222 REF:
INV:
PO: DEPT:

56DJ3/90B8/FE4A

FedEx Express

J22102201050tw

TUE - 01 MAR 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7761 6360 1302

78664
TX-US AUS

A8 BSMA

CUSTODY SEAL

DATE 02-28-202

SIGNATURE

DHL ANALYTICAL

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name **Larson & Associates** Date Received: **3/1/2022**

Work Order Number **2203004** Received by: **RA**

Checklist completed by: _____ 3/1/2022 Reviewed by SH 3/1/2022
Signature | Date | Initials | Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	**3.7** °C
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH<2 acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Yes ☐	No ☐	NA ☑ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

Page 1 of 1

DHL Analytical, Inc. **Date:** *10-Mar-22*

CLIENT: Larson & Associates
Project: LMPSU Trash Pit
Lab Order: 2203004

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Method SW6020B - Dissolved Metals Analysis
Method SW8260D - Volatile Aromatics Analysis
Method E300 - Anions Analysis
Method M2320 B - Alkalinity Analysis
Method M2540C - Total Dissolved Solids Analysis

LOG IN

The samples were received and log-in performed on 3/1/2022. A total of 5 samples were received and analyzed. The samples arrived in good condition and were properly packaged. Samples were collected in the Mountain Standard Time Zone.

ANIONS ANALYSIS

For Anions Analysis, the recoveries of Chloride/Sulfate for the Matrix Spike and Matrix Spike Duplicate(s) (2203004-04 and 2203009-03 MS/MSD) were outside of the method control limits. These are flagged accordingly in the QC Summary Report. These anions were within method control limits in the associated LCS. No further corrective action was taken.

DISSOLVED METALS ANALYSIS

For Dissolved Metals Analysis, the recovery of Sodium for the Matrix Spike and Matrix Spike Duplicate (2203004-02 MS/MSD) was above the method control limits. This is flagged accordingly in the QC Summary Report. This analyte was within method control limits in the associated LCS. No further corrective action was taken.

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT: Larson & Associates
Project: LMPSU Trash Pit
Lab Order: 2203004

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2203004-01	MW-2		02/25/22 10:10 AM	3/1/2022
2203004-02	MW-4		02/25/22 10:45 AM	3/1/2022
2203004-03	MW-3		02/25/22 11:15 AM	3/1/2022
2203004-04	MW-1		02/25/22 11:45 AM	3/1/2022
2203004-05	DUP-1		02/25/22	3/1/2022

Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

DHL Analytical, Inc. *10-Mar-22*

Lab Order: 2203004
Client: Larson & Associates
Project: LMPSU Trash Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2203004-01A	MW-2	02/25/22 10:10 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/05/22 08:58 AM	104225
2203004-01B	MW-2	02/25/22 10:10 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
	MW-2	02/25/22 10:10 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
2203004-01D	MW-2	02/25/22 10:10 AM	Aqueous	M2320 B	Alkalinity Preparation	03/04/22 10:34 AM	104215
	MW-2	02/25/22 10:10 AM	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	MW-2	02/25/22 10:10 AM	Aqueous	M2540C	TDS Preparation	03/01/22 11:32 AM	104160
2203004-02A	MW-4	02/25/22 10:45 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/05/22 08:58 AM	104225
2203004-02B	MW-4	02/25/22 10:45 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
	MW-4	02/25/22 10:45 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
2203004-02D	MW-4	02/25/22 10:45 AM	Aqueous	M2320 B	Alkalinity Preparation	03/04/22 10:34 AM	104215
	MW-4	02/25/22 10:45 AM	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	MW-4	02/25/22 10:45 AM	Aqueous	M2540C	TDS Preparation	03/01/22 11:32 AM	104160
2203004-03A	MW-3	02/25/22 11:15 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/05/22 08:58 AM	104225
2203004-03B	MW-3	02/25/22 11:15 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
	MW-3	02/25/22 11:15 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
2203004-03D	MW-3	02/25/22 11:15 AM	Aqueous	M2320 B	Alkalinity Preparation	03/04/22 10:34 AM	104215
	MW-3	02/25/22 11:15 AM	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	MW-3	02/25/22 11:15 AM	Aqueous	M2540C	TDS Preparation	03/01/22 11:32 AM	104160
2203004-04A	MW-1	02/25/22 11:45 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/05/22 08:58 AM	104225
2203004-04B	MW-1	02/25/22 11:45 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
	MW-1	02/25/22 11:45 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
2203004-04D	MW-1	02/25/22 11:45 AM	Aqueous	M2320 B	Alkalinity Preparation	03/04/22 10:34 AM	104215
	MW-1	02/25/22 11:45 AM	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	MW-1	02/25/22 11:45 AM	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	MW-1	02/25/22 11:45 AM	Aqueous	M2540C	TDS Preparation	03/01/22 11:32 AM	104160
2203004-05A	DUP-1	02/25/22	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/05/22 08:58 AM	104225
2203004-05B	DUP-1	02/25/22	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246
	DUP-1	02/25/22	Aqueous	SW3005A	Aq Prep Metals: Dissolved	03/08/22 08:00 AM	104246

Released to Imaging: 9/14/2023 3:03:39 PM
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DHL Analytical, Inc.

10-Mar-22

Lab Order: 2203004
Client: Larson & Associates
Project: LMPSU Trash Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2203004-05D	DUP-1	02/25/22	Aqueous	M2320 B	Alkalinity Preparation	03/04/22 10:34 AM	104215
	DUP-1	02/25/22	Aqueous	E300	Anion Preparation	03/02/22 11:37 AM	104179
	DUP-1	02/25/22	Aqueous	M2540C	TDS Preparation	03/01/22 11:32 AM	104160

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Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

Lab Order: 2203004
Client: Larson & Associates
Project: LMPSU Trash Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2203004-01A	MW-2	Aqueous	SW8260D	Volatile Aromatics by GC/MS	104225	1	03/05/22 05:05 PM	GCMS3_220305A
2203004-01B	MW-2	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	1	03/08/22 11:56 AM	ICP-MS5_220308B
	MW-2	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	10	03/08/22 12:25 PM	ICP-MS5_220308B
2203004-01D	MW-2	Aqueous	M2320 B	Alkalinity	104215	1	03/04/22 01:13 PM	TITRATOR_220304A
	MW-2	Aqueous	E300	Anions by IC method - Water	104179	10	03/02/22 08:15 PM	IC4_220302B
	MW-2	Aqueous	M2540C	Total Dissolved Solids	104160	1	03/01/22 05:45 PM	WC_220301D
2203004-02A	MW-4	Aqueous	SW8260D	Volatile Aromatics by GC/MS	104225	1	03/05/22 05:31 PM	GCMS3_220305A
2203004-02B	MW-4	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	1	03/08/22 11:51 AM	ICP-MS5_220308B
	MW-4	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	10	03/08/22 12:20 PM	ICP-MS5_220308B
2203004-02D	MW-4	Aqueous	M2320 B	Alkalinity	104215	1	03/04/22 01:24 PM	TITRATOR_220304A
	MW-4	Aqueous	E300	Anions by IC method - Water	104179	10	03/02/22 08:34 PM	IC4_220302B
	MW-4	Aqueous	M2540C	Total Dissolved Solids	104160	1	03/01/22 05:45 PM	WC_220301D
2203004-03A	MW-3	Aqueous	SW8260D	Volatile Aromatics by GC/MS	104225	1	03/05/22 05:57 PM	GCMS3_220305A
2203004-03B	MW-3	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	20	03/08/22 12:28 PM	ICP-MS5_220308B
	MW-3	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	1	03/08/22 11:59 AM	ICP-MS5_220308B
2203004-03D	MW-3	Aqueous	M2320 B	Alkalinity	104215	1	03/04/22 01:32 PM	TITRATOR_220304A
	MW-3	Aqueous	E300	Anions by IC method - Water	104179	10	03/02/22 10:09 PM	IC4_220302B
	MW-3	Aqueous	M2540C	Total Dissolved Solids	104160	1	03/01/22 05:45 PM	WC_220301D
2203004-04A	MW-1	Aqueous	SW8260D	Volatile Aromatics by GC/MS	104225	1	03/05/22 06:23 PM	GCMS3_220305A
2203004-04B	MW-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	1	03/08/22 12:01 PM	ICP-MS5_220308B
	MW-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	50	03/08/22 12:30 PM	ICP-MS5_220308B
2203004-04D	MW-1	Aqueous	M2320 B	Alkalinity	104215	1	03/04/22 02:00 PM	TITRATOR_220304A
	MW-1	Aqueous	E300	Anions by IC method - Water	104179	100	03/02/22 05:24 PM	IC4_220302B
	MW-1	Aqueous	E300	Anions by IC method - Water	104179	10	03/02/22 10:28 PM	IC4_220302B
	MW-1	Aqueous	M2540C	Total Dissolved Solids	104160	1	03/01/22 05:45 PM	WC_220301D
2203004-05A	DUP-1	Aqueous	SW8260D	Volatile Aromatics by GC/MS	104225	1	03/05/22 06:50 PM	GCMS3_220305A
2203004-05B	DUP-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	1	03/08/22 12:04 PM	ICP-MS5_220308B
	DUP-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	104246	10	03/08/22 12:33 PM	ICP-MS5_220308B

Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

Lab Order: 2203004
Client: Larson & Associates
Project: LMPSU Trash Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2203004-05D	DUP-1	Aqueous	M2320 B	Alkalinity	104215	1	03/04/22 02:16 PM	TITRATOR_220304A
	DUP-1	Aqueous	E300	Anions by IC method - Water	104179	10	03/02/22 10:47 PM	IC4_220302B
	DUP-1	Aqueous	M2540C	Total Dissolved Solids	104160	1	03/01/22 05:45 PM	WC_220301D

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-2
Project:	LMPSU Trash Pit	**Lab ID:**	2203004-01
Project No:	14-0107-01	**Collection Date:**	02/25/22 10:10 AM
Lab Order:	2203004	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	03/05/22 05:05 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:05 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:05 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:05 PM
Surr: 1,2-Dichloroethane-d4	102	0	72-119		%REC	1	03/05/22 05:05 PM
Surr: 4-Bromofluorobenzene	102	0	76-119		%REC	1	03/05/22 05:05 PM
Surr: Dibromofluoromethane	103	0	85-115		%REC	1	03/05/22 05:05 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	03/05/22 05:05 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	50.4	1.00	3.00		mg/L	10	03/08/22 12:25 PM
Dissolved Magnesium	29.8	1.00	3.00		mg/L	10	03/08/22 12:25 PM
Dissolved Potassium	5.74	0.100	0.300		mg/L	1	03/08/22 11:56 AM
Dissolved Sodium	118	1.00	3.00		mg/L	10	03/08/22 12:25 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	73.7	3.00	10.0		mg/L	10	03/02/22 08:15 PM
Sulfate	124	10.0	30.0		mg/L	10	03/02/22 08:15 PM
ALKALINITY		**M2320 B**					Analyst: **BM**
Alkalinity, Bicarbonate (As CaCO3)	264	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:13 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:13 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:13 PM
Alkalinity, Total (As CaCO3)	264	20.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:13 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	638	10.0	10.0		mg/L	1	03/01/22 05:45 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-4
Project:	LMPSU Trash Pit	**Lab ID:**	2203004-02
Project No:	14-0107-01	**Collection Date:**	02/25/22 10:45 AM
Lab Order:	2203004	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	03/05/22 05:31 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:31 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:31 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:31 PM
Surr: 1,2-Dichloroethane-d4	102	0	72-119		%REC	1	03/05/22 05:31 PM
Surr: 4-Bromofluorobenzene	101	0	76-119		%REC	1	03/05/22 05:31 PM
Surr: Dibromofluoromethane	103	0	85-115		%REC	1	03/05/22 05:31 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	03/05/22 05:31 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	62.0	1.00	3.00		mg/L	10	03/08/22 12:20 PM
Dissolved Magnesium	42.7	1.00	3.00		mg/L	10	03/08/22 12:20 PM
Dissolved Potassium	7.83	0.100	0.300		mg/L	1	03/08/22 11:51 AM
Dissolved Sodium	165	1.00	3.00		mg/L	10	03/08/22 12:20 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	176	3.00	10.0		mg/L	10	03/02/22 08:34 PM
Sulfate	200	10.0	30.0		mg/L	10	03/02/22 08:34 PM
ALKALINITY		**M2320 B**					Analyst: **BM**
Alkalinity, Bicarbonate (As CaCO3)	256	10.0	20.0		mg/L @ pH 4.55	1	03/04/22 01:24 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.55	1	03/04/22 01:24 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.55	1	03/04/22 01:24 PM
Alkalinity, Total (As CaCO3)	256	20.0	20.0		mg/L @ pH 4.55	1	03/04/22 01:24 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	861	10.0	10.0		mg/L	1	03/01/22 05:45 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-3
Project:	LMPSU Trash Pit	**Lab ID:**	2203004-03
Project No:	14-0107-01	**Collection Date:**	02/25/22 11:15 AM
Lab Order:	2203004	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	03/05/22 05:57 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:57 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:57 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 05:57 PM
Surr: 1,2-Dichloroethane-d4	103	0	72-119		%REC	1	03/05/22 05:57 PM
Surr: 4-Bromofluorobenzene	103	0	76-119		%REC	1	03/05/22 05:57 PM
Surr: Dibromofluoromethane	103	0	85-115		%REC	1	03/05/22 05:57 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	03/05/22 05:57 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	65.4	2.00	6.00		mg/L	20	03/08/22 12:28 PM
Dissolved Magnesium	72.3	2.00	6.00		mg/L	20	03/08/22 12:28 PM
Dissolved Potassium	9.57	0.100	0.300		mg/L	1	03/08/22 11:59 AM
Dissolved Sodium	296	2.00	6.00		mg/L	20	03/08/22 12:28 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	453	3.00	10.0		mg/L	10	03/02/22 10:09 PM
Sulfate	266	10.0	30.0		mg/L	10	03/02/22 10:09 PM
ALKALINITY		**M2320 B**					Analyst: **BM**
Alkalinity, Bicarbonate (As CaCO3)	195	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:32 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:32 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:32 PM
Alkalinity, Total (As CaCO3)	195	20.0	20.0		mg/L @ pH 4.52	1	03/04/22 01:32 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	1400	50.0	50.0		mg/L	1	03/01/22 05:45 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-1
Project:	LMPSU Trash Pit	**Lab ID:**	2203004-04
Project No:	14-0107-01	**Collection Date:**	02/25/22 11:45 AM
Lab Order:	2203004	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	03/05/22 06:23 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:23 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:23 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:23 PM
Surr: 1,2-Dichloroethane-d4	104	0	72-119		%REC	1	03/05/22 06:23 PM
Surr: 4-Bromofluorobenzene	102	0	76-119		%REC	1	03/05/22 06:23 PM
Surr: Dibromofluoromethane	105	0	85-115		%REC	1	03/05/22 06:23 PM
Surr: Toluene-d8	103	0	81-120		%REC	1	03/05/22 06:23 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	170	5.00	15.0		mg/L	50	03/08/22 12:30 PM
Dissolved Magnesium	278	5.00	15.0		mg/L	50	03/08/22 12:30 PM
Dissolved Potassium	18.2	0.100	0.300		mg/L	1	03/08/22 12:01 PM
Dissolved Sodium	1100	5.00	15.0		mg/L	50	03/08/22 12:30 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	1930	30.0	100		mg/L	100	03/02/22 05:24 PM
Sulfate	690	10.0	30.0		mg/L	10	03/02/22 10:28 PM
ALKALINITY		**M2320 B**					Analyst: **BM**
Alkalinity, Bicarbonate (As CaCO3)	638	10.0	20.0		mg/L @ pH 4.54	1	03/04/22 02:00 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	03/04/22 02:00 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	03/04/22 02:00 PM
Alkalinity, Total (As CaCO3)	638	20.0	20.0		mg/L @ pH 4.54	1	03/04/22 02:00 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	4570	50.0	50.0		mg/L	1	03/01/22 05:45 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *10-Mar-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	DUP-1
Project:	LMPSU Trash Pit	**Lab ID:**	2203004-05
Project No:	14-0107-01	**Collection Date:**	02/25/22
Lab Order:	2203004	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	03/05/22 06:50 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:50 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:50 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	03/05/22 06:50 PM
Surr: 1,2-Dichloroethane-d4	104	0	72-119		%REC	1	03/05/22 06:50 PM
Surr: 4-Bromofluorobenzene	101	0	76-119		%REC	1	03/05/22 06:50 PM
Surr: Dibromofluoromethane	103	0	85-115		%REC	1	03/05/22 06:50 PM
Surr: Toluene-d8	102	0	81-120		%REC	1	03/05/22 06:50 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	48.1	1.00	3.00		mg/L	10	03/08/22 12:33 PM
Dissolved Magnesium	28.4	1.00	3.00		mg/L	10	03/08/22 12:33 PM
Dissolved Potassium	5.61	0.100	0.300		mg/L	1	03/08/22 12:04 PM
Dissolved Sodium	113	1.00	3.00		mg/L	10	03/08/22 12:33 PM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	71.1	3.00	10.0		mg/L	10	03/02/22 10:47 PM
Sulfate	118	10.0	30.0		mg/L	10	03/02/22 10:47 PM
ALKALINITY		**M2320 B**					Analyst: **BM**
Alkalinity, Bicarbonate (As CaCO3)	254	10.0	20.0		mg/L @ pH 4.53	1	03/04/22 02:16 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	03/04/22 02:16 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.53	1	03/04/22 02:16 PM
Alkalinity, Total (As CaCO3)	254	20.0	20.0		mg/L @ pH 4.53	1	03/04/22 02:16 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	598	10.0	10.0		mg/L	1	03/01/22 05:45 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc. **Date:** *10-Mar-22*

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS3_220305A

The QC data in batch 104225 applies to the following samples: 2203004-01A, 2203004-02A, 2203004-03A, 2203004-04A, 2203004-05A

Sample ID: **LCS-104225** Batch ID: **104225** TestNo: **SW8260D** Units: **mg/L**
SampType: **LCS** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 10:54:00 AM** Prep Date: **3/5/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0234	0.00200	0.0232	0	101	81	122			
Ethylbenzene	0.0229	0.00600	0.0232	0	98.7	73	127			
Toluene	0.0234	0.00600	0.0232	0	101	77	122			
Total Xylenes	0.0690	0.00600	0.0696	0	99.1	80	121			
Surr: 1,2-Dichloroethane-d4	211		200.0		105	72	119			
Surr: 4-Bromofluorobenzene	207		200.0		103	76	119			
Surr: Dibromofluoromethane	209		200.0		105	85	115			
Surr: Toluene-d8	204		200.0		102	81	120			

Sample ID: **MB-104225** Batch ID: **104225** TestNo: **SW8260D** Units: **mg/L**
SampType: **MBLK** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 11:20:00 AM** Prep Date: **3/5/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	<0.000800	0.00200								
Ethylbenzene	<0.00200	0.00600								
Toluene	<0.00200	0.00600								
Total Xylenes	<0.00200	0.00600								
Surr: 1,2-Dichloroethane-d4	211		200.0		106	72	119			
Surr: 4-Bromofluorobenzene	203		200.0		101	76	119			
Surr: Dibromofluoromethane	208		200.0		104	85	115			
Surr: Toluene-d8	206		200.0		103	81	120			

Sample ID: **2202251-01AMS** Batch ID: **104225** TestNo: **SW8260D** Units: **mg/L**
SampType: **MS** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 7:43:00 PM** Prep Date: **3/5/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0231	0.00200	0.0232	0	99.6	81	122			
Ethylbenzene	0.0220	0.00600	0.0232	0	95.0	73	127			
Toluene	0.0230	0.00600	0.0232	0	99.2	77	122			
Total Xylenes	0.0680	0.00600	0.0696	0	97.7	80	121			
Surr: 1,2-Dichloroethane-d4	206		200.0		103	72	119			
Surr: 4-Bromofluorobenzene	211		200.0		105	76	119			
Surr: Dibromofluoromethane	206		200.0		103	85	115			
Surr: Toluene-d8	204		200.0		102	81	120			

Sample ID: **2202251-01AMSD** Batch ID: **104225** TestNo: **SW8260D** Units: **mg/L**
SampType: **MSD** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 8:09:00 PM** Prep Date: **3/5/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS3_220305A

Sample ID: **2202251-01AMSD** Batch ID: **104225** TestNo: **SW8260D** Units: **mg/L**
SampType: **MSD** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 8:09:00 PM** Prep Date: **3/5/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0232	0.00200	0.0232	0	100	81	122	0.433	20	
Ethylbenzene	0.0222	0.00600	0.0232	0	95.8	73	127	0.908	20	
Toluene	0.0231	0.00600	0.0232	0	99.6	77	122	0.473	20	
Total Xylenes	0.0677	0.00600	0.0696	0	97.3	80	121	0.424	20	
Surr: 1,2-Dichloroethane-d4	206		200.0		103	72	119	0	0	
Surr: 4-Bromofluorobenzene	205		200.0		102	76	119	0	0	
Surr: Dibromofluoromethane	205		200.0		103	85	115	0	0	
Surr: Toluene-d8	203		200.0		102	81	120	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS3_220305A

Sample ID: **ICV-220305** Batch ID: **R119709** TestNo: **SW8260D** Units: **mg/L**
SampType: **ICV** Run ID: **GCMS3_220305A** Analysis Date: **3/5/2022 10:27:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0454	0.00200	0.0464	0	97.8	70	130			
Ethylbenzene	0.0441	0.00600	0.0464	0	95.1	70	130			
Toluene	0.0455	0.00600	0.0464	0	98.0	70	130			
Total Xylenes	0.134	0.00600	0.139	0	96.4	70	130			
Surr: 1,2-Dichloroethane-d4	210		200.0		105	72	119			
Surr: 4-Bromofluorobenzene	208		200.0		104	76	119			
Surr: Dibromofluoromethane	207		200.0		103	85	115			
Surr: Toluene-d8	205		200.0		102	81	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220308B

The QC data in batch 104246 applies to the following samples: 2203004-01B, 2203004-02B, 2203004-03B, 2203004-04B, 2203004-05B

Sample ID: **MB-104246** Batch ID: **104246** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:38:00 AM** Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	<0.100	0.300								
Dissolved Magnesium	<0.100	0.300								
Dissolved Potassium	<0.100	0.300								
Dissolved Sodium	<0.100	0.300								

Sample ID: **MB-104168-FILTER** Batch ID: **104246** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:41:00 AM** Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	<0.100	0.300								
Dissolved Magnesium	<0.100	0.300								
Dissolved Potassium	<0.100	0.300								
Dissolved Sodium	<0.100	0.300								

Sample ID: **LCS-104246** Batch ID: **104246** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:44:00 AM** Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	5.06	0.300	5.00	0	101	80	120			
Dissolved Magnesium	5.19	0.300	5.00	0	104	80	120			
Dissolved Potassium	5.18	0.300	5.00	0	104	80	120			
Dissolved Sodium	5.34	0.300	5.00	0	107	80	120			

Sample ID: **LCSD-104246** Batch ID: **104246** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:46:00 AM** Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	5.00	0.300	5.00	0	100	80	120	1.17	15	
Dissolved Magnesium	5.15	0.300	5.00	0	103	80	120	0.899	15	
Dissolved Potassium	5.11	0.300	5.00	0	102	80	120	1.42	15	
Dissolved Sodium	5.30	0.300	5.00	0	106	80	120	0.594	15	

Sample ID: **2203004-02B SD** Batch ID: **104246** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:54:00 AM** Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	7.89	1.50	0	7.83				0.711	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220308B

Sample ID: **2203004-02B PDS**	Batch ID: **104246**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS5_220308B**	Analysis Date: **3/8/2022 12:06:00 PM**	Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	12.3	0.300	5.00	7.83	90.0	75	125			

Sample ID: **2203004-02B MS**	Batch ID: **104246**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS5_220308B**	Analysis Date: **3/8/2022 12:09:00 PM**	Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	66.5	0.300	5.00	61.7	97.3	75	125			
Dissolved Magnesium	47.3	0.300	5.00	41.8	109	75	125			
Dissolved Potassium	12.9	0.300	5.00	7.83	101	75	125			
Dissolved Sodium	165	0.300	5.00	158	137	75	125			S

Sample ID: **2203004-02B MSD**	Batch ID: **104246**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MSD**	Run ID: **ICP-MS5_220308B**	Analysis Date: **3/8/2022 12:11:00 PM**	Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	66.1	0.300	5.00	61.7	87.7	75	125	0.726	15	
Dissolved Magnesium	47.0	0.300	5.00	41.8	104	75	125	0.603	15	
Dissolved Potassium	12.8	0.300	5.00	7.83	99.1	75	125	0.652	15	
Dissolved Sodium	164	0.300	5.00	158	128	75	125	0.268	15	S

Sample ID: **2203004-02B SD**	Batch ID: **104246**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS5_220308B**	Analysis Date: **3/8/2022 12:22:00 PM**	Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	62.8	15.0	0	62.0				1.44	20	
Magnesium	42.8	15.0	0	42.7				0.217	20	
Sodium	166	15.0	0	165				0.545	20	

Sample ID: **2203004-02B PDS**	Batch ID: **104246**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS5_220308B**	Analysis Date: **3/8/2022 12:35:00 PM**	Prep Date: **3/8/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	112	3.00	50.0	62.0	101	75	125			
Magnesium	93.0	3.00	50.0	42.7	101	75	125			
Sodium	218	3.00	50.0	165	104	75	125			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220308B

Sample ID: **ICV-220308** Batch ID: **R119748** TestNo: **SW6020B** Units: **mg/L**
SampType: **ICV** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 10:41:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	2.53	0.300	2.50	0	101	90	110			
Dissolved Magnesium	2.47	0.300	2.50	0	98.7	90	110			
Dissolved Potassium	2.56	0.300	2.50	0	102	90	110			
Dissolved Sodium	2.64	0.300	2.50	0	105	90	110			

Sample ID: **LCVL-220308** Batch ID: **R119748** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCVL** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 10:46:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	0.107	0.300	0.100	0	107	80	120			
Dissolved Magnesium	0.101	0.300	0.100	0	101	80	120			
Dissolved Potassium	0.0915	0.300	0.100	0	91.5	80	120			
Dissolved Sodium	0.103	0.300	0.100	0	103	80	120			

Sample ID: **CCV1-220308** Batch ID: **R119748** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 11:32:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	4.98	0.300	5.00	0	99.6	90	110			
Dissolved Magnesium	5.11	0.300	5.00	0	102	90	110			
Dissolved Potassium	5.01	0.300	5.00	0	100	90	110			
Dissolved Sodium	5.22	0.300	5.00	0	104	90	110			

Sample ID: **CCV2-220308** Batch ID: **R119748** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 12:14:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	4.91	0.300	5.00	0	98.3	90	110			
Dissolved Magnesium	5.11	0.300	5.00	0	102	90	110			
Dissolved Potassium	4.96	0.300	5.00	0	99.1	90	110			
Dissolved Sodium	5.31	0.300	5.00	0	106	90	110			

Sample ID: **CCV3-220308** Batch ID: **R119748** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS5_220308B** Analysis Date: **3/8/2022 12:38:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	4.94	0.300	5.00	0	98.8	90	110			
Dissolved Magnesium	5.14	0.300	5.00	0	103	90	110			
Dissolved Sodium	5.31	0.300	5.00	0	106	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_220302B

The QC data in batch 104179 applies to the following samples: 2203004-01D, 2203004-02D, 2203004-03D, 2203004-04D, 2203004-05D

Sample ID: **MB-104179** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **MBLK** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 2:01:46 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	<0.300	1.00								
Sulfate	<1.00	3.00								

Sample ID: **LCS-104179** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **LCS** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 2:20:46 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.3	1.00	10.00	0	103	90	110			
Sulfate	31.1	3.00	30.00	0	104	90	110			

Sample ID: **LCSD-104179** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **LCSD** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 2:39:46 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110	1.79	20	
Sulfate	31.0	3.00	30.00	0	103	90	110	0.500	20	

Sample ID: **2203009-03CMS** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 4:46:51 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	37800	1000	20000	20360	87.4	90	110			S
Sulfate	223000	3000	20000	217600	28.9	90	110			S

Sample ID: **2203009-03CMSD** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 5:05:51 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	37600	1000	20000	20360	86.2	90	110	0.670	20	S
Sulfate	223000	3000	20000	217600	27.5	90	110	0.122	20	S

Sample ID: **2203004-04DMS** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 5:43:51 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	3640	100	2000	1927	85.7	90	110			S
Sulfate	2580	300	2000	727.6	92.7	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_220302B

Sample ID: **2203004-04DMSD** Batch ID: **104179** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC4_220302B** Analysis Date: **3/2/2022 6:02:51 PM** Prep Date: **3/2/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	3610	100	2000	1927	84.2	90	110	0.837	20	S
Sulfate	2570	300	2000	727.6	91.9	90	110	0.629	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_220302B

Sample ID: **ICV-220302**	Batch ID: **R119657**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC4_220302B**	Analysis Date: **3/2/2022 1:23:46 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.5	1.00	25.00	0	102	90	110			
Sulfate	77.3	3.00	75.00	0	103	90	110			

Sample ID: **CCV1-220302**	Batch ID: **R119657**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC4_220302B**	Analysis Date: **3/2/2022 9:31:50 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.78	1.00	10.00	0	97.8	90	110			
Sulfate	29.8	3.00	30.00	0	99.4	90	110			

Sample ID: **CCV2-220302**	Batch ID: **R119657**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC4_220302B**	Analysis Date: **3/3/2022 1:57:50 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.79	1.00	10.00	0	97.9	90	110			
Sulfate	30.1	3.00	30.00	0	100	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_220304A

The QC data in batch 104215 applies to the following samples: 2203004-01D, 2203004-02D, 2203004-03D, 2203004-04D, 2203004-05D

Sample ID: **MB-104215** Batch ID: **104215** TestNo: **M2320 B** Units: **mg/L @ pH 4.27**
SampType: **MBLK** Run ID: **TITRATOR_220304A** Analysis Date: **3/4/2022 12:23:00 PM** Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0								
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0								
Alkalinity, Total (As CaCO3)	<20.0	20.0								

Sample ID: **LCS-104215** Batch ID: **104215** TestNo: **M2320 B** Units: **mg/L @ pH 4.26**
SampType: **LCS** Run ID: **TITRATOR_220304A** Analysis Date: **3/4/2022 12:27:00 PM** Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	55.4	20.0	50.00	0	111	74	129			

Sample ID: **LCSD-104215** Batch ID: **104215** TestNo: **M2320 B** Units: **mg/L @ pH 4.21**
SampType: **LCSD** Run ID: **TITRATOR_220304A** Analysis Date: **3/4/2022 12:32:00 PM** Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	55.8	20.0	50.00	0	112	74	129	0.576	20	

Sample ID: **2203002-01D-DUP** Batch ID: **104215** TestNo: **M2320 B** Units: **mg/L @ pH 4.53**
SampType: **DUP** Run ID: **TITRATOR_220304A** Analysis Date: **3/4/2022 12:45:00 PM** Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	119	20.0	0	117.9				0.592	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	119	20.0	0	117.9				0.592	20	

Sample ID: **2203002-02D-DUP** Batch ID: **104215** TestNo: **M2320 B** Units: **mg/L @ pH 4.54**
SampType: **DUP** Run ID: **TITRATOR_220304A** Analysis Date: **3/4/2022 12:55:00 PM** Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	123	20.0	0	120.4				1.81	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	123	20.0	0	120.4				1.81	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_220304A

Sample ID: **ICV-220304**	Batch ID: **R119702**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.21**
SampType: **ICV**	Run ID: **TITRATOR_220304A**	Analysis Date: **3/4/2022 11:43:00 AM**	Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	18.0	20.0	0							
Alkalinity, Carbonate (As CaCO3)	83.8	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	102	20.0	100.0	0	102	98	102			

Sample ID: **CCV1-220304**	Batch ID: **R119702**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.18**
SampType: **CCV**	Run ID: **TITRATOR_220304A**	Analysis Date: **3/4/2022 2:06:00 PM**	Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	33.2	20.0	0							
Alkalinity, Carbonate (As CaCO3)	69.8	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	103	20.0	100.0	0	103	90	110			

Sample ID: **CCV2-220304**	Batch ID: **R119702**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.26**
SampType: **CCV**	Run ID: **TITRATOR_220304A**	Analysis Date: **3/4/2022 3:22:00 PM**	Prep Date: **3/4/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	27.0	20.0	0							
Alkalinity, Carbonate (As CaCO3)	74.9	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	102	20.0	100.0	0	102	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2203004
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: WC_220301D

The QC data in batch 104160 applies to the following samples: 2203004-01D, 2203004-02D, 2203004-03D, 2203004-04D, 2203004-05D

Sample ID: **MB-104160**	Batch ID: **104160**	TestNo: **M2540C**	Units: **mg/L**
SampType: **MBLK**	Run ID: **WC_220301D**	Analysis Date: **3/1/2022 5:45:00 PM**	Prep Date: **3/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	<10.0	10.0								

Sample ID: **LCS-104160**	Batch ID: **104160**	TestNo: **M2540C**	Units: **mg/L**
SampType: **LCS**	Run ID: **WC_220301D**	Analysis Date: **3/1/2022 5:45:00 PM**	Prep Date: **3/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	751	10.0	745.6	0	101	90	113			

Sample ID: **2202255-08D-DUP**	Batch ID: **104160**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_220301D**	Analysis Date: **3/1/2022 5:45:00 PM**	Prep Date: **3/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	17600	200	0	17700				0.453	5	

Sample ID: **2202255-10D-DUP**	Batch ID: **104160**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_220301D**	Analysis Date: **3/1/2022 5:45:00 PM**	Prep Date: **3/1/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	5060	200	0	4900				3.21	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

June 02, 2022

Mark Larson
Larson & Associates
507 N. Marienfeld #202
Midland, TX 79701
TEL: (432) 687-0901
FAX (432) 687-0456

Order No.: 2205241

RE: LMPSU Trash Pit

Dear Mark Larson:

DHL Analytical, Inc. received 5 sample(s) on 5/24/2022 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAP except where noted in the Case Narrative. All non-NELAP methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-21-27

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№ 1896

CHAIN-OF-CUSTODY

Larson & Associates, Inc.
Environmental Consultants
507 N. Marienfeld, Ste. 202
Midland, TX 79701
432-687-0901

Data Reported to:

DATE: 5/15/2022 PAGE 1 OF 1
PO#: LAB WORK ORDER#: 2205241
PROJECT LOCATION OR NAME: LMPSU Trash Pit
LAI PROJECT #: 14-0107-01 COLLECTOR: DSG / TP

TRRP report? ☐ Yes ☒ No

S=SOIL P=PAINT
W=WATER SL=SLUDGE
A=AIR OT=OTHER

TIME ZONE: Time zone/State: MST / NM

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION: HCl x3	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE x2	UNPRESSERVED	ANALYSES: BTEX 4 ☐ MTBE ☐	TRPH 418.1 ☐	TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	OIL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS 4 TSS ☐ % MOISTURE ☐	pH ☐ HEXAVALENT CHROMIUM ☐ CYANIDE ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDES 4 ANIONS ☐ ALKALINITY 4	Sulfate Dissolved Cations	FIELD NOTES
MW-2	01	5/15/22	1020	W	5	3			X		X															X			X	X	X	
MW-4	02	"	1120	"	"	"			"		X															X			X	X	X	
MW-3	03	"	1200	"	"	"			"		X															X			X	X	X	
MW-1	04	"	1240	"	"	"			"		X															X			X	X	X	
Dup-1	05	"		"	"	"			"		X															X			X	X	X	

TOTAL 4 5

RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)
	5/23/22 1615	Kelsey O'Neal Fedex
fedex	5/24/22 0850	Kelsey O'Neal
RELINQUISHED BY:(Signature)	DATE/TIME	RECEIVED BY: (Signature)

LABORATORY: DHL

3

TURN AROUND TIME
NORMAL ☒
1 DAY ☐
2 DAY ☐
OTHER ☐

LABORATORY USE ONLY:
RECEIVING TEMP: 4.1°C THERM#: 78
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☑ NOT USED
☐ CARRIER BILL # Via Fedex
☐ HAND DELIVERED

Received by OCD: 8/22/2022 3:06:35 PM
Released to Imaging: 9/14/2023 3:03:39 PM

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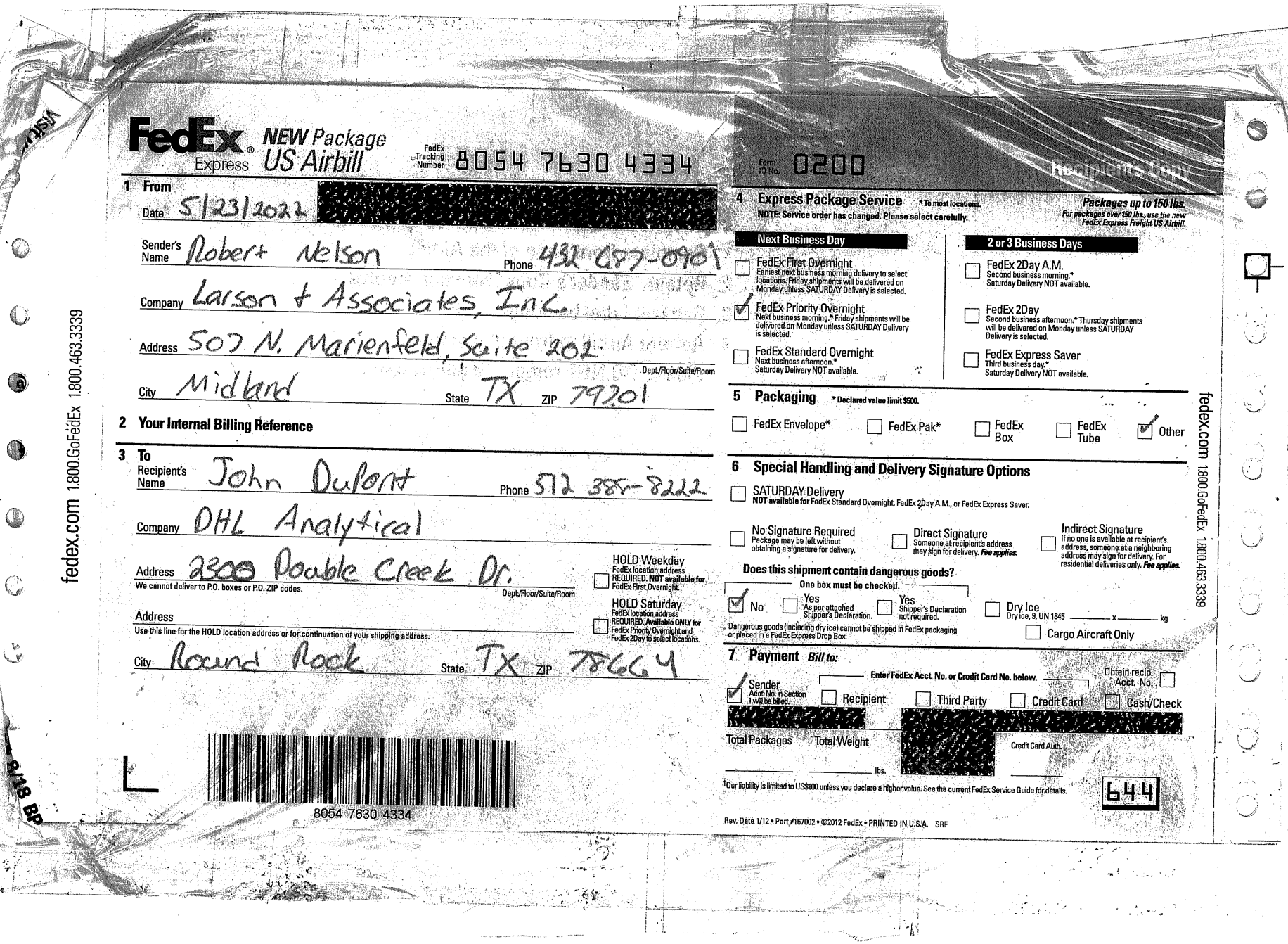

FedEx Express NEW Package US Airbill

FedEx Tracking Number 8054 7630 4334

Form ID No. 0200

Recipient's Copy

1 From

Date 5/23/2022 [redacted]

Sender's Name Robert Nelson Phone 432 687-0901

Company Larson + Associates, Inc.

Address 507 N. Marienfeld, Suite 202

Dept/Floor/Suite/Room

City Midland State TX ZIP 79701

2 Your Internal Billing Reference

3 To

Recipient's Name John DuPont Phone 512 388-8222

Company DHL Analytical

Address 2300 Double Creek Dr.

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept/Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Round Rock State TX ZIP 78664

HOLD Weekday
FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday
FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8054 7630 4334

4 Express Package Service * To most locations.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs.
For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

Next Business Day

- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☑ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- ☐ FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging * Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☑ Other

6 Special Handling and Delivery Signature Options

☐ SATURDAY Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required — Package may be left without obtaining a signature for delivery.
☐ Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

☑ No ☐ Yes — As per attached Shipper's Declaration. ☐ Yes — Shipper's Declaration not required. ☐ Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. ☐ Cargo Aircraft Only

7 Payment *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below.

☑ Sender Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Obtain recip. Acct. No. ☐

Total Packages [redacted] Total Weight [redacted] lbs. Credit Card Auth. [redacted]

†Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

644

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8/18 BP

Received by OCD: 8/22/2022 3:06:35 PM

Released to Imaging: 9/14/2023 3:03:39 PM

DHL Analytical, Inc.

Sample Receipt Checklist

Client Name **Larson & Associates** Date Received: **5/24/2022**

Work Order Number **2205241** Received by: **KAO**

Checklist completed by: Signature 5/24/2022 Date Reviewed by Initials 5/24/2022 Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ✓	No	Not Present
Custody seals intact on shipping container/cooler?	Yes	No	Not Present ✓
Custody seals intact on sample bottles?	Yes	No	Not Present ✓
Chain of custody present?	Yes ✓	No	
Chain of custody signed when relinquished and received?	Yes ✓	No	
Chain of custody agrees with sample labels?	Yes ✓	No	
Samples in proper container/bottle?	Yes ✓	No	
Sample containers intact?	Yes ✓	No	
Sufficient sample volume for indicated test?	Yes ✓	No	
All samples received within holding time?	Yes ✓	No	
Container/Temp Blank temperature in compliance?	Yes ✓	No	4.1 °C
Water - VOA vials have zero headspace?	Yes ✓	No	No VOA vials submitted
Water - pH<2 acceptable upon receipt?	Yes ✓	No	NA LOT # 13171
	Adjusted? no		Checked by EL
Water - ph>9 (S) or ph>10 (CN) acceptable upon receipt?	Yes	No	NA ✓ LOT #
	Adjusted?		Checked by

Any No response must be detailed in the comments section below.

Client contacted: Date contacted: Person contacted

Contacted by: Regarding:

Comments:

Corrective Action:

Page 1 of 1

DHL Analytical, Inc. **Date:** *02-Jun-22*

CLIENT: Larson & Associates
Project: LMPSU Trash Pit
Lab Order: 2205241

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Method SW8260D - Volatile Organics Analysis
Method SW6020B - Metals Analysis
Method E300 - Anions Analysis
Method M2320 B - Alkalinity Analysis
Method M2540C - TDS Analysis

LOG IN

The samples were received and log-in performed on 5/24/22. A total of 5 samples were received. The samples arrived in good condition and were properly packaged.

METALS ANALYSIS

For Metals analysis performed on 5/31/22 and 6/1/22 the matrix spike and matrix spike duplicate recoveries were out of control limits for Calcium and Sodium. These are flagged accordingly in the QC summary report. The reference sample selected for the matrix spike and matrix spike duplicate was not from this work order. The LCS was within control limits for these analytes. No further corrective actions were taken.

For Metals analysis performed on 5/31/22 the PDS recovery was out of control limits for three analytes. These are flagged accordingly. The serial dilution was within control limits for these analytes. No further corrective actions were taken.

ANIONS ANALYSIS

For Anions analysis performed on 5/25/22 the matrix spike and matrix spike duplicate recoveries (2205241-04 MS/MSD) were slightly below control limits for Chloride. This was due to matrix effect. These are flagged accordingly in the QC summary report. The reference sample selected for the matrix spike and matrix spike duplicate (2205241-04 MS/MSD) was from this work order. The LCS was within control limits for this analyte. No further corrective actions were taken.

DHL Analytical, Inc.

Date: *02-Jun-22*

CLIENT: Larson & Associates
Project: LMPSU Trash Pit
Lab Order: 2205241

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
2205241-01	MW-2		05/18/22 10:20 AM	5/24/2022
2205241-02	MW-4		05/18/22 11:20 AM	5/24/2022
2205241-03	MW-3		05/18/22 12:00 PM	5/24/2022
2205241-04	MW-1		05/18/22 12:40 PM	5/24/2022
2205241-05	Dup-1		05/18/22	5/24/2022

Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

DHL Analytical, Inc.

02-Jun-22

Lab Order: 2205241
Client: Larson & Associates
Project: LMPSU Trash Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2205241-01A	MW-2	05/18/22 10:20 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	05/24/22 01:09 PM	105492
2205241-01B	MW-2	05/18/22 10:20 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	05/31/22 08:16 AM	105581
	MW-2	05/18/22 10:20 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	05/31/22 08:16 AM	105581
2205241-01D	MW-2	05/18/22 10:20 AM	Aqueous	M2320 B	Alkalinity Preparation	05/26/22 08:26 AM	105522
	MW-2	05/18/22 10:20 AM	Aqueous	E300	Anion Preparation	05/25/22 10:30 AM	105511
	MW-2	05/18/22 10:20 AM	Aqueous	M2540C	TDS Preparation	05/24/22 11:38 AM	105488
2205241-02A	MW-4	05/18/22 11:20 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	05/24/22 01:09 PM	105492
2205241-02B	MW-4	05/18/22 11:20 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	05/31/22 08:16 AM	105581
	MW-4	05/18/22 11:20 AM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	05/31/22 08:16 AM	105581
2205241-02D	MW-4	05/18/22 11:20 AM	Aqueous	M2320 B	Alkalinity Preparation	05/26/22 08:26 AM	105522
	MW-4	05/18/22 11:20 AM	Aqueous	E300	Anion Preparation	05/25/22 10:30 AM	105511
	MW-4	05/18/22 11:20 AM	Aqueous	E300	Anion Preparation	05/25/22 10:30 AM	105511
	MW-4	05/18/22 11:20 AM	Aqueous	M2540C	TDS Preparation	05/24/22 11:38 AM	105488
2205241-03A	MW-3	05/18/22 12:00 PM	Aqueous	SW5030C	Purge and Trap Water GC/MS	05/24/22 01:09 PM	105492
2205241-03B	MW-3	05/18/22 12:00 PM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	05/31/22 08:16 AM	105581
	MW-3	05/18/22 12:00 PM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	05/31/22 08:16 AM	105581
2205241-03D	MW-3	05/18/22 12:00 PM	Aqueous	M2320 B	Alkalinity Preparation	05/26/22 08:26 AM	105522
	MW-3	05/18/22 12:00 PM	Aqueous	E300	Anion Preparation	05/25/22 10:30 AM	105511
	MW-3	05/18/22 12:00 PM	Aqueous	M2540C	TDS Preparation	05/24/22 11:38 AM	105488
2205241-04A	MW-1	05/18/22 12:40 PM	Aqueous	SW5030C	Purge and Trap Water GC/MS	05/24/22 01:09 PM	105492
2205241-04B	MW-1	05/18/22 12:40 PM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	05/31/22 08:16 AM	105581
	MW-1	05/18/22 12:40 PM	Aqueous	SW3005A	Aq Prep Metals: Dissolved	05/31/22 08:16 AM	105581
2205241-04D	MW-1	05/18/22 12:40 PM	Aqueous	M2320 B	Alkalinity Preparation	05/26/22 08:26 AM	105522
	MW-1	05/18/22 12:40 PM	Aqueous	E300	Anion Preparation	05/25/22 10:30 AM	105511
	MW-1	05/18/22 12:40 PM	Aqueous	E300	Anion Preparation	05/25/22 10:30 AM	105511
	MW-1	05/18/22 12:40 PM	Aqueous	M2540C	TDS Preparation	05/24/22 11:38 AM	105488
2205241-05A	Dup-1	05/18/22	Aqueous	SW5030C	Purge and Trap Water GC/MS	05/24/22 01:09 PM	105492
2205241-05B	Dup-1	05/18/22	Aqueous	SW3005A	Aq Prep Metals: Dissolved	05/31/22 08:16 AM	105581

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Released to Imaging: 9/14/2023 3:03:39 PM
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DHL Analytical, Inc.

02-Jun-22

Lab Order: 2205241
Client: Larson & Associates
Project: LMPSU Trash Pit

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
2205241-05B	Dup-1	05/18/22	Aqueous	SW3005A	Aq Prep Metals: Dissolved	05/31/22 08:16 AM	105581
2205241-05D	Dup-1	05/18/22	Aqueous	M2320 B	Alkalinity Preparation	05/26/22 08:26 AM	105522
	Dup-1	05/18/22	Aqueous	E300	Anion Preparation	05/25/22 10:30 AM	105511
	Dup-1	05/18/22	Aqueous	M2540C	TDS Preparation	05/24/22 11:38 AM	105488

Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

DHL Analytical, Inc.

02-Jun-22

Lab Order: 2205241
Client: Larson & Associates
Project: LMPSU Trash Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2205241-01A	MW-2	Aqueous	SW8260D	Volatile Aromatics by GC/MS	105492	1	05/24/22 03:33 PM	GCMS3_220524A
2205241-01B	MW-2	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	105581	10	06/01/22 11:44 AM	ICP-MS4_220601A
	MW-2	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	105581	1	05/31/22 03:03 PM	ICP-MS5_220531A
2205241-01D	MW-2	Aqueous	M2320 B	Alkalinity	105522	1	05/26/22 12:00 PM	TITRATOR_220526A
	MW-2	Aqueous	E300	Anions by IC method - Water	105511	10	05/26/22 02:49 AM	IC4_220525A
	MW-2	Aqueous	M2540C	Total Dissolved Solids	105488	1	05/24/22 04:40 PM	WC_220524A
2205241-02A	MW-4	Aqueous	SW8260D	Volatile Aromatics by GC/MS	105492	1	05/24/22 04:00 PM	GCMS3_220524A
2205241-02B	MW-4	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	105581	10	06/01/22 11:46 AM	ICP-MS4_220601A
	MW-4	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	105581	1	05/31/22 03:06 PM	ICP-MS5_220531A
2205241-02D	MW-4	Aqueous	M2320 B	Alkalinity	105522	1	05/26/22 12:11 PM	TITRATOR_220526A
	MW-4	Aqueous	E300	Anions by IC method - Water	105511	100	05/25/22 08:10 PM	IC4_220525A
	MW-4	Aqueous	E300	Anions by IC method - Water	105511	10	05/26/22 03:08 AM	IC4_220525A
	MW-4	Aqueous	M2540C	Total Dissolved Solids	105488	1	05/24/22 04:40 PM	WC_220524A
2205241-03A	MW-3	Aqueous	SW8260D	Volatile Aromatics by GC/MS	105492	1	05/24/22 04:26 PM	GCMS3_220524A
2205241-03B	MW-3	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	105581	20	06/01/22 11:48 AM	ICP-MS4_220601A
	MW-3	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	105581	1	05/31/22 03:08 PM	ICP-MS5_220531A
2205241-03D	MW-3	Aqueous	M2320 B	Alkalinity	105522	1	05/26/22 12:20 PM	TITRATOR_220526A
	MW-3	Aqueous	E300	Anions by IC method - Water	105511	10	05/26/22 03:27 AM	IC4_220525A
	MW-3	Aqueous	M2540C	Total Dissolved Solids	105488	1	05/24/22 04:40 PM	WC_220524A
2205241-04A	MW-1	Aqueous	SW8260D	Volatile Aromatics by GC/MS	105492	1	05/24/22 04:53 PM	GCMS3_220524A
2205241-04B	MW-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	105581	50	06/01/22 11:50 AM	ICP-MS4_220601A
	MW-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	105581	1	05/31/22 03:11 PM	ICP-MS5_220531A
2205241-04D	MW-1	Aqueous	M2320 B	Alkalinity	105522	1	05/26/22 12:46 PM	TITRATOR_220526A
	MW-1	Aqueous	E300	Anions by IC method - Water	105511	100	05/25/22 09:07 PM	IC4_220525A
	MW-1	Aqueous	E300	Anions by IC method - Water	105511	10	05/26/22 03:46 AM	IC4_220525A
	MW-1	Aqueous	M2540C	Total Dissolved Solids	105488	1	05/24/22 04:40 PM	WC_220524A
2205241-05A	Dup-1	Aqueous	SW8260D	Volatile Aromatics by GC/MS	105492	1	05/24/22 05:18 PM	GCMS3_220524A
2205241-05B	Dup-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	105581	10	06/01/22 11:52 AM	ICP-MS4_220601A

Released to Imaging: 9/14/2023 3:03:39 PM
Received by OCD: 8/22/2022 3:06:35 PM

Lab Order: 2205241
Client: Larson & Associates
Project: LMPSU Trash Pit

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
2205241-05B	Dup-1	Aqueous	SW6020B	Metals-ICPMS (0.45µ filtered)	105581	1	05/31/22 03:13 PM	ICP-MS5_220531A
2205241-05D	Dup-1	Aqueous	M2320 B	Alkalinity	105522	1	05/26/22 12:58 PM	TITRATOR_220526A
	Dup-1	Aqueous	E300	Anions by IC method - Water	105511	10	05/26/22 04:05 AM	IC4_220525A
	Dup-1	Aqueous	M2540C	Total Dissolved Solids	105488	1	05/24/22 04:40 PM	WC_220524A

DHL Analytical, Inc.

Date: *02-Jun-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-2
Project:	LMPSU Trash Pit	**Lab ID:**	2205241-01
Project No:	14-0107-01	**Collection Date:**	05/18/22 10:20 AM
Lab Order:	2205241	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	05/24/22 03:33 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 03:33 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 03:33 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 03:33 PM
Surr: 1,2-Dichloroethane-d4	105	0	72-119		%REC	1	05/24/22 03:33 PM
Surr: 4-Bromofluorobenzene	101	0	76-119		%REC	1	05/24/22 03:33 PM
Surr: Dibromofluoromethane	98.9	0	85-115		%REC	1	05/24/22 03:33 PM
Surr: Toluene-d8	99.8	0	81-120		%REC	1	05/24/22 03:33 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	53.1	1.00	3.00		mg/L	10	06/01/22 11:44 AM
Dissolved Magnesium	28.1	1.00	3.00		mg/L	10	06/01/22 11:44 AM
Dissolved Potassium	5.31	0.100	0.300		mg/L	1	05/31/22 03:03 PM
Dissolved Sodium	109	1.00	3.00		mg/L	10	06/01/22 11:44 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	78.5	3.00	10.0		mg/L	10	05/26/22 02:49 AM
Sulfate	131	10.0	30.0		mg/L	10	05/26/22 02:49 AM
ALKALINITY		**M2320 B**					Analyst: **MFW**
Alkalinity, Bicarbonate (As CaCO3)	270	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:00 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:00 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:00 PM
Alkalinity, Total (As CaCO3)	270	20.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:00 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	650	10.0	10.0		mg/L	1	05/24/22 04:40 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *02-Jun-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-4
Project:	LMPSU Trash Pit	**Lab ID:**	2205241-02
Project No:	14-0107-01	**Collection Date:**	05/18/22 11:20 AM
Lab Order:	2205241	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	05/24/22 04:00 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 04:00 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 04:00 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 04:00 PM
Surr: 1,2-Dichloroethane-d4	104	0	72-119		%REC	1	05/24/22 04:00 PM
Surr: 4-Bromofluorobenzene	101	0	76-119		%REC	1	05/24/22 04:00 PM
Surr: Dibromofluoromethane	100	0	85-115		%REC	1	05/24/22 04:00 PM
Surr: Toluene-d8	100	0	81-120		%REC	1	05/24/22 04:00 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	67.0	1.00	3.00		mg/L	10	06/01/22 11:46 AM
Dissolved Magnesium	40.8	1.00	3.00		mg/L	10	06/01/22 11:46 AM
Dissolved Potassium	7.85	0.100	0.300		mg/L	1	05/31/22 03:06 PM
Dissolved Sodium	156	1.00	3.00		mg/L	10	06/01/22 11:46 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	175	3.00	10.0		mg/L	10	05/26/22 03:08 AM
Sulfate	194	10.0	30.0		mg/L	10	05/26/22 03:08 AM
ALKALINITY		**M2320 B**					Analyst: **MFW**
Alkalinity, Bicarbonate (As CaCO3)	247	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:11 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:11 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:11 PM
Alkalinity, Total (As CaCO3)	247	20.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:11 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	880	10.0	10.0		mg/L	1	05/24/22 04:40 PM

Qualifiers:					
	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *02-Jun-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-3
Project:	LMPSU Trash Pit	**Lab ID:**	2205241-03
Project No:	14-0107-01	**Collection Date:**	05/18/22 12:00 PM
Lab Order:	2205241	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	05/24/22 04:26 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 04:26 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 04:26 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 04:26 PM
Surr: 1,2-Dichloroethane-d4	104	0	72-119		%REC	1	05/24/22 04:26 PM
Surr: 4-Bromofluorobenzene	101	0	76-119		%REC	1	05/24/22 04:26 PM
Surr: Dibromofluoromethane	100	0	85-115		%REC	1	05/24/22 04:26 PM
Surr: Toluene-d8	99.9	0	81-120		%REC	1	05/24/22 04:26 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	75.7	2.00	6.00		mg/L	20	06/01/22 11:48 AM
Dissolved Magnesium	73.2	2.00	6.00		mg/L	20	06/01/22 11:48 AM
Dissolved Potassium	9.85	0.100	0.300		mg/L	1	05/31/22 03:08 PM
Dissolved Sodium	278	2.00	6.00		mg/L	20	06/01/22 11:48 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	470	3.00	10.0		mg/L	10	05/26/22 03:27 AM
Sulfate	277	10.0	30.0		mg/L	10	05/26/22 03:27 AM
ALKALINITY		**M2320 B**					Analyst: **MFW**
Alkalinity, Bicarbonate (As CaCO3)	194	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:20 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:20 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:20 PM
Alkalinity, Total (As CaCO3)	194	20.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:20 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	1370	50.0	50.0		mg/L	1	05/24/22 04:40 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *02-Jun-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	MW-1
Project:	LMPSU Trash Pit	**Lab ID:**	2205241-04
Project No:	14-0107-01	**Collection Date:**	05/18/22 12:40 PM
Lab Order:	2205241	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	05/24/22 04:53 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 04:53 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 04:53 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 04:53 PM
Surr: 1,2-Dichloroethane-d4	105	0	72-119		%REC	1	05/24/22 04:53 PM
Surr: 4-Bromofluorobenzene	102	0	76-119		%REC	1	05/24/22 04:53 PM
Surr: Dibromofluoromethane	100	0	85-115		%REC	1	05/24/22 04:53 PM
Surr: Toluene-d8	99.8	0	81-120		%REC	1	05/24/22 04:53 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	183	5.00	15.0		mg/L	50	06/01/22 11:50 AM
Dissolved Magnesium	269	5.00	15.0		mg/L	50	06/01/22 11:50 AM
Dissolved Potassium	17.8	0.100	0.300		mg/L	1	05/31/22 03:11 PM
Dissolved Sodium	1000	5.00	15.0		mg/L	50	06/01/22 11:50 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	1980	30.0	100		mg/L	100	05/25/22 09:07 PM
Sulfate	703	10.0	30.0		mg/L	10	05/26/22 03:46 AM
ALKALINITY		**M2320 B**					Analyst: **MFW**
Alkalinity, Bicarbonate (As CaCO3)	566	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:46 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:46 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:46 PM
Alkalinity, Total (As CaCO3)	566	20.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:46 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	4550	50.0	50.0		mg/L	1	05/24/22 04:40 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc.

Date: *02-Jun-22*

CLIENT:	Larson & Associates	**Client Sample ID:**	Dup-1
Project:	LMPSU Trash Pit	**Lab ID:**	2205241-05
Project No:	14-0107-01	**Collection Date:**	05/18/22
Lab Order:	2205241	**Matrix:**	AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
VOLATILE AROMATICS BY GC/MS		**SW8260D**					Analyst: **BTJ**
Benzene	<0.000800	0.000800	0.00200		mg/L	1	05/24/22 05:18 PM
Ethylbenzene	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 05:18 PM
Toluene	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 05:18 PM
Total Xylenes	<0.00200	0.00200	0.00600		mg/L	1	05/24/22 05:18 PM
Surr: 1,2-Dichloroethane-d4	103	0	72-119		%REC	1	05/24/22 05:18 PM
Surr: 4-Bromofluorobenzene	102	0	76-119		%REC	1	05/24/22 05:18 PM
Surr: Dibromofluoromethane	99.6	0	85-115		%REC	1	05/24/22 05:18 PM
Surr: Toluene-d8	99.3	0	81-120		%REC	1	05/24/22 05:18 PM
METALS-ICPMS (0.45µ FILTERED)		**SW6020B**					Analyst: **SP**
Dissolved Calcium	53.9	1.00	3.00		mg/L	10	06/01/22 11:52 AM
Dissolved Magnesium	28.9	1.00	3.00		mg/L	10	06/01/22 11:52 AM
Dissolved Potassium	5.09	0.100	0.300		mg/L	1	05/31/22 03:13 PM
Dissolved Sodium	111	1.00	3.00		mg/L	10	06/01/22 11:52 AM
ANIONS BY IC METHOD - WATER		**E300**					Analyst: **BM**
Chloride	78.0	3.00	10.0		mg/L	10	05/26/22 04:05 AM
Sulfate	129	10.0	30.0		mg/L	10	05/26/22 04:05 AM
ALKALINITY		**M2320 B**					Analyst: **MFW**
Alkalinity, Bicarbonate (As CaCO3)	265	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:58 PM
Alkalinity, Carbonate (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:58 PM
Alkalinity, Hydroxide (As CaCO3)	<10.0	10.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:58 PM
Alkalinity, Total (As CaCO3)	265	20.0	20.0		mg/L @ pH 4.54	1	05/26/22 12:58 PM
TOTAL DISSOLVED SOLIDS		**M2540C**					Analyst: **JS**
Total Dissolved Solids (Residue, Filterable)	650	10.0	10.0		mg/L	1	05/24/22 04:40 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	C	Sample Result or QC discussed in the Case Narrative
	DF	Dilution Factor	E	TPH pattern not Gas or Diesel Range Pattern
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	RL	Reporting Limit
	S	Spike Recovery outside control limits	N	Parameter not NELAP certified

DHL Analytical, Inc. **Date:** *02-Jun-22*

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS3_220524A

The QC data in batch 105492 applies to the following samples: 2205241-01A, 2205241-02A, 2205241-03A, 2205241-04A, 2205241-05A

Sample ID: **LCS-105492** Batch ID: **105492** TestNo: **SW8260D** Units: **mg/L**
SampType: **LCS** Run ID: **GCMS3_220524A** Analysis Date: **5/24/2022 2:39:00 PM** Prep Date: **5/24/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0218	0.00200	0.0232	0	93.9	81	122			
Ethylbenzene	0.0219	0.00600	0.0232	0	94.6	73	127			
Toluene	0.0217	0.00600	0.0232	0	93.7	77	122			
Total Xylenes	0.0655	0.00600	0.0696	0	94.2	80	121			
Surr: 1,2-Dichloroethane-d4	207		200.0		103	72	119			
Surr: 4-Bromofluorobenzene	205		200.0		102	76	119			
Surr: Dibromofluoromethane	196		200.0		98.0	85	115			
Surr: Toluene-d8	199		200.0		99.5	81	120			

Sample ID: **MB-105492** Batch ID: **105492** TestNo: **SW8260D** Units: **mg/L**
SampType: **MBLK** Run ID: **GCMS3_220524A** Analysis Date: **5/24/2022 3:06:00 PM** Prep Date: **5/24/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	<0.000800	0.00200								
Ethylbenzene	<0.00200	0.00600								
Toluene	<0.00200	0.00600								
Total Xylenes	<0.00200	0.00600								
Surr: 1,2-Dichloroethane-d4	209		200.0		105	72	119			
Surr: 4-Bromofluorobenzene	203		200.0		101	76	119			
Surr: Dibromofluoromethane	200		200.0		100	85	115			
Surr: Toluene-d8	200		200.0		99.8	81	120			

Sample ID: **2205242-02AMS** Batch ID: **105492** TestNo: **SW8260D** Units: **mg/L**
SampType: **MS** Run ID: **GCMS3_220524A** Analysis Date: **5/24/2022 7:07:00 PM** Prep Date: **5/24/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.267	0.0200	0.232	0	115	81	122			
Ethylbenzene	0.271	0.0600	0.232	0	117	73	127			
Toluene	0.269	0.0600	0.232	0	116	77	122			
Total Xylenes	0.821	0.0600	0.696	0	118	80	121			
Surr: 1,2-Dichloroethane-d4	2090		2000		104	72	119			
Surr: 4-Bromofluorobenzene	2020		2000		101	76	119			
Surr: Dibromofluoromethane	1960		2000		98.1	85	115			
Surr: Toluene-d8	2000		2000		99.9	81	120			

Sample ID: **2205242-02AMSD** Batch ID: **105492** TestNo: **SW8260D** Units: **mg/L**
SampType: **MSD** Run ID: **GCMS3_220524A** Analysis Date: **5/24/2022 7:34:00 PM** Prep Date: **5/24/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS3_220524A

Sample ID: **2205242-02AMSD** Batch ID: **105492** TestNo: **SW8260D** Units: **mg/L**
SampType: **MSD** Run ID: **GCMS3_220524A** Analysis Date: **5/24/2022 7:34:00 PM** Prep Date: **5/24/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.225	0.0200	0.232	0	97.0	81	122	17.1	20	
Ethylbenzene	0.229	0.0600	0.232	0	98.6	73	127	17.1	20	
Toluene	0.226	0.0600	0.232	0	97.5	77	122	17.3	20	
Total Xylenes	0.686	0.0600	0.696	0	98.5	80	121	17.9	20	
Surr: 1,2-Dichloroethane-d4	2100		2000		105	72	119	0	0	
Surr: 4-Bromofluorobenzene	2010		2000		100	76	119	0	0	
Surr: Dibromofluoromethane	1990		2000		99.6	85	115	0	0	
Surr: Toluene-d8	2010		2000		101	81	120	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS3_220524A

Sample ID: **ICV-220524** Batch ID: **R121229** TestNo: **SW8260D** Units: **mg/L**
SampType: **ICV** Run ID: **GCMS3_220524A** Analysis Date: **5/24/2022 2:12:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.0442	0.00200	0.0464	0	95.2	70	130			
Ethylbenzene	0.0443	0.00600	0.0464	0	95.4	70	130			
Toluene	0.0439	0.00600	0.0464	0	94.7	70	130			
Total Xylenes	0.131	0.00600	0.139	0	94.4	70	130			
Surr: 1,2-Dichloroethane-d4	205		200.0		102	72	119			
Surr: 4-Bromofluorobenzene	204		200.0		102	76	119			
Surr: Dibromofluoromethane	198		200.0		99.2	85	115			
Surr: Toluene-d8	199		200.0		99.7	81	120			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_220601A

The QC data in batch 105581 applies to the following samples: 2205241-01B, 2205241-02B, 2205241-03B, 2205241-04B, 2205241-05B

Sample ID: **MB-105581**	Batch ID: **105581**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MBLK**	Run ID: **ICP-MS4_220601A**	Analysis Date: **6/1/2022 11:30:00 AM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Sodium	<0.100	0.300								

Sample ID: **MB-105481-FILTER**	Batch ID: **105581**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MBLK**	Run ID: **ICP-MS4_220601A**	Analysis Date: **6/1/2022 11:32:00 AM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Sodium	<0.100	0.300	0							

Sample ID: **LCS-105581**	Batch ID: **105581**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCS**	Run ID: **ICP-MS4_220601A**	Analysis Date: **6/1/2022 11:34:00 AM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Sodium	4.87	0.300	5.00	0	97.5	80	120			

Sample ID: **LCSD-105581**	Batch ID: **105581**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCSD**	Run ID: **ICP-MS4_220601A**	Analysis Date: **6/1/2022 11:36:00 AM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Sodium	5.02	0.300	5.00	0	100	80	120	2.96	15	

Sample ID: **2205264-16D SD**	Batch ID: **105581**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **SD**	Run ID: **ICP-MS4_220601A**	Analysis Date: **6/1/2022 11:42:00 AM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Sodium	521	75.0	0	530				1.64	20	

Sample ID: **2205264-16D PDS**	Batch ID: **105581**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **PDS**	Run ID: **ICP-MS4_220601A**	Analysis Date: **6/1/2022 11:54:00 AM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Sodium	758	15.0	250	530	91.3	75	125			

Sample ID: **2205264-16D MS**	Batch ID: **105581**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **MS**	Run ID: **ICP-MS4_220601A**	Analysis Date: **6/1/2022 11:59:00 AM**	Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Sodium	507	15.0	5.00	530	-456	75	125			S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_220601A

Sample ID: **2205264-16D MSD** Batch ID: **105581** TestNo: **SW6020B** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS4_220601A** Analysis Date: **6/1/2022 12:01:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Sodium	518	15.0	5.00	530	-241	75	125	2.11	15	S

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS4_220601A

Sample ID: **ICV-220601** Batch ID: **R121364** TestNo: **SW6020B** Units: **mg/L**
SampType: **ICV** Run ID: **ICP-MS4_220601A** Analysis Date: **6/1/2022 10:29:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	2.52	0.300	2.50	0	101	90	110			
Dissolved Magnesium	2.44	0.300	2.50	0	97.5	90	110			
Dissolved Sodium	2.55	0.300	2.50	0	102	90	110			

Sample ID: **LCVL-220601** Batch ID: **R121364** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCVL** Run ID: **ICP-MS4_220601A** Analysis Date: **6/1/2022 10:34:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	0.105	0.300	0.100	0	105	80	120			
Dissolved Magnesium	0.0994	0.300	0.100	0	99.4	80	120			
Dissolved Sodium	0.100	0.300	0.100	0	100	80	120			

Sample ID: **CCV1-220601** Batch ID: **R121364** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS4_220601A** Analysis Date: **6/1/2022 11:26:00 AM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	5.43	0.300	5.00	0	109	90	110			
Dissolved Magnesium	5.05	0.300	5.00	0	101	90	110			
Dissolved Sodium	5.13	0.300	5.00	0	103	90	110			

Sample ID: **CCV2-220601** Batch ID: **R121364** TestNo: **SW6020B** Units: **mg/L**
SampType: **CCV** Run ID: **ICP-MS4_220601A** Analysis Date: **6/1/2022 12:03:00 PM** Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	5.28	0.300	5.00	0	106	90	110			
Dissolved Magnesium	4.92	0.300	5.00	0	98.5	90	110			
Dissolved Sodium	4.95	0.300	5.00	0	98.9	90	110			

Qualifiers:			
B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220531A

The QC data in batch 105581 applies to the following samples: 2205241-01B, 2205241-02B, 2205241-03B, 2205241-04B, 2205241-05B

Sample ID: **MB-105581** Batch ID: **105581** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_220531A** Analysis Date: **5/31/2022 2:43:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	<0.100	0.300								
Dissolved Magnesium	<0.100	0.300								
Dissolved Potassium	<0.100	0.300								

Sample ID: **MB-105481-FILTER** Batch ID: **105581** TestNo: **SW6020B** Units: **mg/L**
SampType: **MBLK** Run ID: **ICP-MS5_220531A** Analysis Date: **5/31/2022 2:45:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	<0.100	0.300	0							
Dissolved Magnesium	<0.100	0.300	0							
Dissolved Potassium	<0.100	0.300	0							

Sample ID: **LCS-105581** Batch ID: **105581** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCS** Run ID: **ICP-MS5_220531A** Analysis Date: **5/31/2022 2:50:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	5.06	0.300	5.00	0	101	80	120			
Dissolved Magnesium	5.01	0.300	5.00	0	100	80	120			
Dissolved Potassium	4.97	0.300	5.00	0	99.3	80	120			

Sample ID: **LCSD-105581** Batch ID: **105581** TestNo: **SW6020B** Units: **mg/L**
SampType: **LCSD** Run ID: **ICP-MS5_220531A** Analysis Date: **5/31/2022 2:53:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	5.09	0.300	5.00	0	102	80	120	0.722	15	
Dissolved Magnesium	5.01	0.300	5.00	0	100	80	120	0.039	15	
Dissolved Potassium	4.98	0.300	5.00	0	99.5	80	120	0.176	15	

Sample ID: **2205264-16D SD** Batch ID: **105581** TestNo: **SW6020B** Units: **mg/L**
SampType: **SD** Run ID: **ICP-MS5_220531A** Analysis Date: **5/31/2022 3:01:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	319	1.50	0	316				0.947	20	
Dissolved Magnesium	25.7	1.50	0	25.7				0.123	20	
Dissolved Potassium	44.6	1.50	0	45.6				2.34	20	

Sample ID: **2205264-16D PDS** Batch ID: **105581** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_220531A** Analysis Date: **5/31/2022 3:26:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220531A

Sample ID: **2205264-16D PDS** Batch ID: **105581** TestNo: **SW6020B** Units: **mg/L**
SampType: **PDS** Run ID: **ICP-MS5_220531A** Analysis Date: **5/31/2022 3:26:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	303	0.300	5.00	316	-271	75	125			S
Dissolved Magnesium	29.0	0.300	5.00	25.7	67.1	75	125			S
Dissolved Potassium	48.8	0.300	5.00	45.6	63.2	75	125			S

Sample ID: **2205264-16D MS** Batch ID: **105581** TestNo: **SW6020B** Units: **mg/L**
SampType: **MS** Run ID: **ICP-MS5_220531A** Analysis Date: **5/31/2022 3:29:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	317	0.300	5.00	316	14.4	75	125			S
Dissolved Magnesium	30.6	0.300	5.00	25.7	98.8	75	125			
Dissolved Potassium	51.3	0.300	5.00	45.6	112	75	125			

Sample ID: **2205264-16D MSD** Batch ID: **105581** TestNo: **SW6020B** Units: **mg/L**
SampType: **MSD** Run ID: **ICP-MS5_220531A** Analysis Date: **5/31/2022 3:31:00 PM** Prep Date: **5/31/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	319	0.300	5.00	316	51.9	75	125	0.591	15	S
Dissolved Magnesium	30.8	0.300	5.00	25.7	101	75	125	0.418	15	
Dissolved Potassium	50.9	0.300	5.00	45.6	105	75	125	0.683	15	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS5_220531A

Sample ID: **ICV-220531**	Batch ID: **R121344**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **ICV**	Run ID: **ICP-MS5_220531A**	Analysis Date: **5/31/2022 11:17:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	2.53	0.300	2.50	0	101	90	110			
Dissolved Magnesium	2.46	0.300	2.50	0	98.5	90	110			
Dissolved Potassium	2.54	0.300	2.50	0	102	90	110			

Sample ID: **LCVL-220531**	Batch ID: **R121344**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **LCVL**	Run ID: **ICP-MS5_220531A**	Analysis Date: **5/31/2022 11:30:00 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	0.101	0.300	0.100	0	101	80	120			
Dissolved Magnesium	0.101	0.300	0.100	0	101	80	120			
Dissolved Potassium	0.112	0.300	0.100	0	112	80	120			

Sample ID: **CCV5-220531**	Batch ID: **R121344**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_220531A**	Analysis Date: **5/31/2022 2:37:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	5.15	0.300	5.00	0	103	90	110			
Dissolved Magnesium	5.15	0.300	5.00	0	103	90	110			
Dissolved Potassium	5.14	0.300	5.00	0	103	90	110			

Sample ID: **CCV6-220531**	Batch ID: **R121344**	TestNo: **SW6020B**	Units: **mg/L**
SampType: **CCV**	Run ID: **ICP-MS5_220531A**	Analysis Date: **5/31/2022 3:34:00 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dissolved Calcium	5.15	0.300	5.00	0	103	90	110			
Dissolved Magnesium	5.15	0.300	5.00	0	103	90	110			
Dissolved Potassium	5.13	0.300	5.00	0	103	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_220525A

The QC data in batch 105511 applies to the following samples: 2205241-01D, 2205241-02D, 2205241-03D, 2205241-04D, 2205241-05D

Sample ID: **MB-105511** Batch ID: **105511** TestNo: **E300** Units: **mg/L**
SampType: **MBLK** Run ID: **IC4_220525A** Analysis Date: **5/25/2022 5:38:29 PM** Prep Date: **5/25/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	<0.300	1.00								
Sulfate	<1.00	3.00								

Sample ID: **LCS-105511** Batch ID: **105511** TestNo: **E300** Units: **mg/L**
SampType: **LCS** Run ID: **IC4_220525A** Analysis Date: **5/25/2022 5:57:29 PM** Prep Date: **5/25/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.0	1.00	10.00	0	100	90	110			
Sulfate	30.4	3.00	30.00	0	101	90	110			

Sample ID: **LCSD-105511** Batch ID: **105511** TestNo: **E300** Units: **mg/L**
SampType: **LCSD** Run ID: **IC4_220525A** Analysis Date: **5/25/2022 6:16:29 PM** Prep Date: **5/25/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.97	1.00	10.00	0	99.7	90	110	0.784	20	
Sulfate	30.2	3.00	30.00	0	101	90	110	0.597	20	

Sample ID: **2205241-02DMS** Batch ID: **105511** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC4_220525A** Analysis Date: **5/25/2022 8:29:29 PM** Prep Date: **5/25/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	2140	100	2000	198.5	96.8	90	110			
Sulfate	2150	300	2000	184.1	98.3	90	110			

Sample ID: **2205241-02DMSD** Batch ID: **105511** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC4_220525A** Analysis Date: **5/25/2022 8:48:29 PM** Prep Date: **5/25/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	2140	100	2000	198.5	97.0	90	110	0.158	20	
Sulfate	2170	300	2000	184.1	99.3	90	110	0.919	20	

Sample ID: **2205241-04DMS** Batch ID: **105511** TestNo: **E300** Units: **mg/L**
SampType: **MS** Run ID: **IC4_220525A** Analysis Date: **5/25/2022 9:26:28 PM** Prep Date: **5/25/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	3650	100	2000	1976	83.7	90	110			S
Sulfate	2630	300	2000	696.9	96.7	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_220525A

Sample ID: **2205241-04DMSD** Batch ID: **105511** TestNo: **E300** Units: **mg/L**
SampType: **MSD** Run ID: **IC4_220525A** Analysis Date: **5/25/2022 9:45:28 PM** Prep Date: **5/25/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	3660	100	2000	1976	84.1	90	110	0.206	20	S
Sulfate	2620	300	2000	696.9	96.3	90	110	0.260	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: IC4_220525A

Sample ID: **ICV-220525**	Batch ID: **R121242**	TestNo: **E300**	Units: **mg/L**
SampType: **ICV**	Run ID: **IC4_220525A**	Analysis Date: **5/25/2022 5:00:29 PM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	25.2	1.00	25.00	0	101	90	110			
Sulfate	76.9	3.00	75.00	0	103	90	110			

Sample ID: **CCV1-220525**	Batch ID: **R121242**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC4_220525A**	Analysis Date: **5/26/2022 12:55:29 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110			
Sulfate	30.6	3.00	30.00	0	102	90	110			

Sample ID: **CCV2-220525**	Batch ID: **R121242**	TestNo: **E300**	Units: **mg/L**
SampType: **CCV**	Run ID: **IC4_220525A**	Analysis Date: **5/26/2022 5:21:28 AM**	Prep Date:

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10.1	1.00	10.00	0	101	90	110			
Sulfate	30.6	3.00	30.00	0	102	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_220526A

The QC data in batch 105522 applies to the following samples: 2205241-01D, 2205241-02D, 2205241-03D, 2205241-04D, 2205241-05D

Sample ID: **MB-105522** Batch ID: **105522** TestNo: **M2320 B** Units: **mg/L @ pH 4.44**
SampType: **MBLK** Run ID: **TITRATOR_220526A** Analysis Date: **5/26/2022 9:04:00 AM** Prep Date: **5/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0	0							
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	<20.0	20.0	0							

Sample ID: **LCS-105522** Batch ID: **105522** TestNo: **M2320 B** Units: **mg/L @ pH 4.5**
SampType: **LCS** Run ID: **TITRATOR_220526A** Analysis Date: **5/26/2022 9:09:00 AM** Prep Date: **5/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	50.7	20.0	50.00	0	101	74	129			

Sample ID: **LCSD-105522** Batch ID: **105522** TestNo: **M2320 B** Units: **mg/L @ pH 4.51**
SampType: **LCSD** Run ID: **TITRATOR_220526A** Analysis Date: **5/26/2022 9:13:00 AM** Prep Date: **5/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	50.1	20.0	50.00	0	100	74	129	1.27	20	

Sample ID: **2205234-01E-DUP** Batch ID: **105522** TestNo: **M2320 B** Units: **mg/L @ pH 4.55**
SampType: **DUP** Run ID: **TITRATOR_220526A** Analysis Date: **5/26/2022 9:39:00 AM** Prep Date: **5/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	<20.0	20.0	0	0				0	20	

Sample ID: **2205252-01B-DUP** Batch ID: **105522** TestNo: **M2320 B** Units: **mg/L @ pH 4.52**
SampType: **DUP** Run ID: **TITRATOR_220526A** Analysis Date: **5/26/2022 1:26:00 PM** Prep Date: **5/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	122	20.0	0	120.0				1.24	20	
Alkalinity, Carbonate (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0	0				0	20	
Alkalinity, Total (As CaCO3)	122	20.0	0	120.0				1.24	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_220526A

Sample ID: **ICV-220526**	Batch ID: **R121333**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.53**
SampType: **ICV**	Run ID: **TITRATOR_220526A**	Analysis Date: **5/26/2022 9:01:00 AM**	Prep Date: **5/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	2.88	20.0	0							
Alkalinity, Carbonate (As CaCO3)	98.6	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	101	20.0	100.0	0	101	98	102			

Sample ID: **CCV-220526**	Batch ID: **R121333**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.52**
SampType: **CCV**	Run ID: **TITRATOR_220526A**	Analysis Date: **5/26/2022 10:43:00 AM**	Prep Date: **5/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	14.8	20.0	0							
Alkalinity, Carbonate (As CaCO3)	80.6	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	95.4	20.0	100.0	0	95.4	90	110			

Sample ID: **CCV1-220526**	Batch ID: **R121333**	TestNo: **M2320 B**	Units: **mg/L @ pH 4.52**
SampType: **CCV**	Run ID: **TITRATOR_220526A**	Analysis Date: **5/26/2022 1:33:00 PM**	Prep Date: **5/26/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Alkalinity, Bicarbonate (As CaCO3)	21.1	20.0	0							
Alkalinity, Carbonate (As CaCO3)	76.8	20.0	0							
Alkalinity, Hydroxide (As CaCO3)	<10.0	20.0	0							
Alkalinity, Total (As CaCO3)	97.9	20.0	100.0	0	97.9	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

CLIENT: Larson & Associates
Work Order: 2205241
Project: LMPSU Trash Pit

ANALYTICAL QC SUMMARY REPORT

RunID: WC_220524A

The QC data in batch 105488 applies to the following samples: 2205241-01D, 2205241-02D, 2205241-03D, 2205241-04D, 2205241-05D

Sample ID: **MB-105488**	Batch ID: **105488**	TestNo: **M2540C**	Units: **mg/L**
SampType: **MBLK**	Run ID: **WC_220524A**	Analysis Date: **5/24/2022 4:40:00 PM**	Prep Date: **5/24/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	<10.0	10.0								

Sample ID: **LCS-105488**	Batch ID: **105488**	TestNo: **M2540C**	Units: **mg/L**
SampType: **LCS**	Run ID: **WC_220524A**	Analysis Date: **5/24/2022 4:40:00 PM**	Prep Date: **5/24/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	753	10.0	745.6	0	101	90	113			

Sample ID: **2205241-03D-DUP**	Batch ID: **105488**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_220524A**	Analysis Date: **5/24/2022 4:40:00 PM**	Prep Date: **5/24/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	1380	50.0	0	1370				0.727	5	

Sample ID: **2205241-04D-DUP**	Batch ID: **105488**	TestNo: **M2540C**	Units: **mg/L**
SampType: **DUP**	Run ID: **WC_220524A**	Analysis Date: **5/24/2022 4:40:00 PM**	Prep Date: **5/24/2022**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	4520	50.0	0	4545				0.662	5	

Qualifiers:

B	Analyte detected in the associated Method Blank	DF	Dilution Factor
J	Analyte detected between MDL and RL	MDL	Method Detection Limit
ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
RL	Reporting Limit	S	Spike Recovery outside control limits
J	Analyte detected between SDL and RL	N	Parameter not NELAP certified

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District III
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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 136537

CONDITIONS

Operator: LEGACY RESERVES OPERATING, LP 15 Smith Road Midland, TX 79705	OGRID: 240974
	Action Number: 136537
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Review of the 2022 Semi-Annual GW Report for the Langlie Mattix Penrose Sand Unit Trash Pit: Content Satisfactory 1. Request to reduce groundwater monitoring events from four (4) quarterly events to semi-annually is granted based on plume stability. 2.Legacy may discontinue sampling for nitrate as it has demonstrated to be well below the NMWQCC standard of 10 mg/L over multiple events. 3. Submit 2023 Annual Groundwater Report by or before April 1, 2024.	9/14/2023