Parkhill

GROUNDWATER MONITORING REPORT JUNE 2023 SAMPLING EVENT

SANDOVAL COUNTY PUBLIC WORKS

Sandoval County Landfill
Rio Rancho, New Mexico

September | 2023

Parkhill Project # 40111.22

Parkhill

September 1, 2023

Mr. William Schueler
Environmental Specialist
New Mexico Environment Department
Solid Waste Bureau
P.O. Box 5469
Santa Fe, NM 87502

Re: 40111.22 Sandoval County Landfill: Groundwater Monitoring Report
June 2023 Sampling Event

Dear Mr. Schueler:

On behalf of our client, Sandoval County, Parkhill is submitting groundwater monitoring results corresponding to samples collected at the Sandoval County Landfill (SCLF) on June 7, 2023. This event consisted of sample collection at each of the site's five active monitoring wells, as well as field blank documentation. In addition, laboratory analytical results are compared to the NMED-approved established assessment monitoring levels (AMLs) and upper tolerance limit values (UTLVs).

We appreciate the Department's ongoing review of the groundwater monitoring program for the Sandoval County Landfill. Please contact us with your questions or comments at 505.504.7765.

Sincerely,

PARKHILL

By _____
Andrew N. Yuhas, PG
Professional Geologist

ANY/*tsz*/pg
Enclosures

cc: Mr. John Offerson, Environmental Scientist-O, NMED Solid Waste Bureau
Mr. Mark Hatzenbuhler, Director of Public Works, Sandoval County
Chris Perea, Landfill Manger (Facility Operating Record)

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EXHIBITS

TABLES

1.0 INTRODUCTION

On June 7, 2023 Parkhill performed annual groundwater monitoring at the Sandoval County Landfill (Exhibit A) in accordance with the site's existing Solid Waste Facility Permit (SWM-0123365). This event consisted of sample collection at each of the site's five active monitoring wells.

Samples collected from wells MW-2R, 3R, 5R, 6R, and 7R were analyzed for the current NMED-approved alternate list of parameters (Exhibit B). Laboratory analytical results were compared to the established assessment monitoring levels (AMLs) and upper tolerance limit values (UTLVs) approved by NMED in 2015.

2.0 GROUNDWATER MONITORING PROGRAM

2.1 GROUNDWATER MONITORING NETWORK

The original monitoring well network at Sandoval County Landfill (SCLF) consisted of four monitoring wells (MW-1 through MW-4). Upgradient monitoring well MW-4 was decommissioned in June 2003 in advance of Cell 4A construction and replaced by upgradient monitoring well MW-5 in July/August 2003. On March 11, 2010, the Solid Waste Bureau (SWB) approved the exclusion of well MW-1 from sample collection due to steadily decreasing water levels. Two additional monitoring wells (MW-6 and MW-7) were installed in January and March 2004, respectively. On March 21, 2016, SWB approved the exclusion of well MW-5 from the sampling network, and the installation of well MW-5R as the replacement upgradient well. Well MW-5 was subsequently replaced by upgradient well MW-5R in April 2016 due to predictable declining recharge issues. On November 29, 2017, SWB approved the exclusion of wells MW-6 and MW-7 from the sampling network, and the installation of wells MW-6R and MW-7R as replacement downgradient wells. The field activities related to the installation of replacement monitoring wells MW-6R and MW-7R between February 22, 2018 and May 31, 2018 are documented in the Groundwater Monitoring Wells MW-6R and MW-7R Installation Report (Parkhill, June 25, 2018), which was approved by SWB on July 4, 2018.

On August 12, 2019, Parkhill submitted the Groundwater Monitoring Wells MW-2 and MW-3 Replacement Workplan (the Workplan) to NMED for review and approval. Due to insufficient flows and declining recharge rates observed during routine monitoring, the Workplan provided the rationale for the deactivation of wells MW-2 and MW-3 (i.e., exclusion from the groundwater monitoring network and conversion to piezometers) and replacement with new wells MW-2R and MW-3R. On September 18, 2019 SWB approved the Workplan and the removal of wells MW-2 and MW-3 from the groundwater monitoring network (Exhibit G.2). The field activities related to the installation of replacement monitoring wells MW-2R and MW-3R between March 20, 2020 and April 7, 2020 are documented in the Groundwater Monitoring Well Installation Report: Wells MW-2R and MW-3R (Parkhill, July 2, 2020), which was approved by SWB on August 19, 2020 (Exhibit G.3).

On October 6, 2020 (Exhibit G.4), SWB determined that the BCVs, AMLs and UTLVs already established for monitoring wells MW-2 and MW-3 were statistically consistent with the June 17, 2020 analytical results from monitoring wells MW-2R and MW-3R and approved the use of these existing thresholds for determination of exceedances for new wells MW-2R and MW-3R.

2.2 MONITORING SCHEDULE AND PARAMETERS

The current groundwater monitoring program for SCLF consists of the annual collection and analysis of samples for the NMED-approved alternate list of parameters (Exhibit B). Consistent with the requirements of 20.9.9.11.B NMAC, samples collected from each well in 2024 will be analyzed for the entire suite of parameters listed in Subsections A&C of 20.9.9.20 NMAC (i.e., once every five years).

2.3 GROUNDWATER LEVEL MEASUREMENTS

Depth-to-water (DTW) measurements for all on-site wells were recorded prior to purging and sampling, which were used to develop the groundwater contour map provided as Exhibit C. The measurements were recorded using a calibrated electronic tape that emits an audible signal when the water surface is penetrated. These event-specific measurements, along with the calculated groundwater elevation for each well, are summarized in Exhibit D.

2.4 MONITORING WELL PURGING AND SAMPLING

Monitoring wells MW-2R, 3R, 5R, 6R, and 7R are equipped with dedicated pump systems designed to control the flow and delivery of groundwater to the ground surface in order to produce the most representative sample of groundwater beneath the facility. The pump system for each well includes a dedicated Grundflos® Redi-Flo4™ submersible pump and motor used for both purging and sampling. The pump/motor combination is operated by a Redi-Flo® variable frequency drive (VFD) controller that allows the flow rate to be controlled at the ground surface as the groundwater exits the discharge tubing. A minimum of 3 well volumes of water were removed from wells MW-5R, MW-6R, and MW-7R prior to sampling. Due to low yield, a minimum of one well volume of water was removed from wells MW-2R and MW-3R prior to sampling using low-flow purging methods.

As presented in the *Groundwater Monitoring System Plan Update (Updated June 20, 2017)*, the objective of low-flow purge and sampling is to collect a sample of water from the natural, unimpeded flow of groundwater across the screened section of the well. The slow removal of water ensures that stagnant water above the screened water column, and/or highly turbid water settling in a sump below the screened section, is not captured with water passing naturally through the screened section.

In the practice of low-flow purge and sampling, purge volumes are dependent upon field parameter stabilization and the recharge rate of each well. Consistent with the low-flow purge/sampling protocol outlined in the *Groundwater Monitoring System Plan Update (Updated June 20, 2017)*, wells MW-2R and 3R were purged until field measurements of pH, temperature, and specific conductance (SC) had stabilized to within acceptable ranges for three successive readings.

Following collection, the groundwater samples were immediately placed in a cooler containing ice and maintained at approximately 4°C until delivery to the laboratory on June 7, 2023. Samples delivered to the laboratory were accompanied by the appropriate chain-of-custody documentation.

2.5 MONITORING WELL INSPECTION AND MAINTENANCE

Each monitoring well is equipped with a locking cap, and each well was found to be secured and in good condition. The protective casings, bollards, and concrete pads were also found to be in good condition at the time of sampling.

3.0 SITE HYDROGEOLOGY

The hydrogeology of the site is summarized in Section 3 of the *Application for Permit for the Sandoval County Landfill, Volume V, updated January 2005*. The following discussion of the site hydrogeology presents select information contained in the Application for Permit:

The landfill site is located on the western flank of the Albuquerque Basin at an elevation of approximately 5,280 to 5,430 feet. The landfill is underlain by a sequence of siltstones and mudstones belonging to the Arroyo Ojito Formation of the upper Santa Fe Group. In this area, the Santa Fe Group is over 4,000 feet thick. The Arroyo Ojito Formation consists of two members, the Loma Barbon and the Ceja, both of which are exposed at an outcrop near the east-central portion of the property. The Loma Barbon Member is the major unit within the Arroyo Ojito Formation, and underlies the entire facility. The Loma Barbon consists of well-consolidated, fine-grained, yellow-brown to red-brown silty sandstones with interbedded mudstones and scattered lenses of fluvial deposits of coarse-grained and cobbly sandstones.

The Ceja Member of the Arroyo Ojito Formation is a 40- to 60-foot-thick sequence of moderately consolidated, light red to red-brown medium to coarse-grained sandstones and gravels, with minor interbeds of siltstones and mudstones. This unit is present on the topographically highest portion of the property in the area of wells MW-3 and MW-6 and may be seen capping the hills immediately south of the Facility. Unconformably overlying the Arroyo Ojito Formation are thin (20-30 feet thick) Quaternary deposits of Pleistocene age.

3.1 GROUNDWATER FLOW DIRECTION AND VELOCITY

The direction of groundwater flow at SCLF has historically been to the east-northeast towards the Rio Grande, and groundwater contour modeling results from this event are consistent with the historical trend. Exhibit C presents the groundwater elevation contour map based on depth-to-water measurements recorded from the site's eleven existing groundwater monitoring wells for this event. As shown in Exhibit C, the current groundwater table ranges in elevation from 4988.16 feet above mean sea level (fmsl) in upgradient well MW-5 to 4970.80 fmsl in downgradient well MW-3. The groundwater flow direction is generally east-northeastward, following a hydraulic gradient of 0.0060 ft/ft (Exhibit C). Assuming a saturated hydraulic conductivity (K_{SAT}) of 3.28 x 10^{-7} ft/sec to 3.28 x 10^{-5} ft/sec (10^{-5} cm/sec to 10^{-3} cm/sec, Freeze and Cherry, 1979) and an effective porosity (n) of 0.45 (Domenico and Schwartz, 1998) for semi-consolidated silty sand, the average linear groundwater velocity ranges from approximately 0.1379 ft/year to 13.79 ft/year.

4.0 LABORATORY ANALYTICAL TEST RESULTS

Groundwater samples were analyzed by Hall Environmental Analysis Laboratory (HEAL) of Albuquerque, NM, using applicable EPA methods or their approved equivalents. A review of the quality assurance/quality control (QA/QC) data provided by the laboratory indicates that applicable QA/QC criteria have been met for this event. Laboratory analytical results for this event are summarized in Exhibit E. The corresponding laboratory reports and chain-of-custody documentation are provided in Exhibit F, which also provides the laboratory practical quantitation limits (PQLs).

4.1 LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

The following quality assurance/quality control (QA/QC) samples were collected and analyzed for the volatile organic compounds (VOCs) listed in Subsection A of 20.9.9.20 NMAC to ensure field-sampling quality and laboratory reproducibility:

- One field blank (labeled “Field Blank”) collected in the vicinity of well MW-5R
- One duplicate sample (labeled “Dupe”) collected from well MW-5R

In addition, one trip blank, prepared and sealed by the laboratory, was included with the samples to ensure sample quality. The field blank was prepared by filling sample containers with VOC-free deionized water in proximity to the gasoline-powered generator. No VOCs were reported as detected in the duplicate or trip blank QA/QC samples. However, toluene was reported as detected in the field blank at a concentration of 1.9 µg/L. Given that toluene was not reported as detected in samples collected form anu of the monitoring wells for this event, the presence of this parameter in the filed blank suggests a source other than the landfill. The detection of toluene is likely the result of ambient impacts from generator exhaust.

4.2 LABORATORY ANALYTICAL RESULTS

4.2.1 Organic Parameters

Groundwater samples were analyzed for the alternate list of organic parameters provided in Exhibit B; and the laboratory analytical results were compared to the corresponding established AML. No organic parameter was reported as detected above the respective laboratory PQL in any of the groundwater samples.

4.2.2 Inorganic Parameters

Groundwater samples were also analyzed for the alternate list of inorganic parameters provided in Exhibit B; and the laboratory analytical results were compared to the corresponding established AML. With the exceptions of the parameters listed in Table 1, no inorganic parameter exceeded its respective, established AML. As required, preliminary notification of the exceedances was provided to NMED Solid Waste Bureau on July 19, 2022 (Exhibit G.1). Table 1 provides a summary of the inorganic parameters exhibiting apparent exceedances of the established AML. With the exception of arsenic in well MW-7R, the data in Table 1 demonstrate that no statistically significant increase (SSI) is apparent for these constituents (i.e., the concentration is less than the established UTLV).

TABLE 1 - Inorganic Parameters Exhibiting Established AML or UTLV Exceedances

Well I.D.	Sampling Date	Parameter	Analytical Result (mg/L)	Established AML (mg/L)	Regulatory Presumptive AML (mg/L)	Established UTLV (mg/L)
MW-2R	06/07/23	Arsenic	0.0059	0.0057	0.0050	0.0079
MW-6R	06/07/23	Arsenic	0.0087	0.0086	0.0050	0.0110
MW-7R	06/07/23	Nitrate Arsenic	6.9 ***0.0070***	5.0 0.0060	5.0 0.0050	N/A 0.0070

Notes:

- N/A indicates UTLV not assigned
- **Bold italics** indicates that Established UTLV has been met or exceeded

Arsenic

Well MW-7R

The concentration of arsenic in well MW-7R exceeds the established AML and is equal to the established UTLV. Comparison to historical total and dissolved arsenic concentrations indicates that arsenic is still being detected at concentrations similar to historical ranges and is likely a result of natural fluctuations in groundwater quality monitored by this replacement well.

Nitrate

Well MW-7R

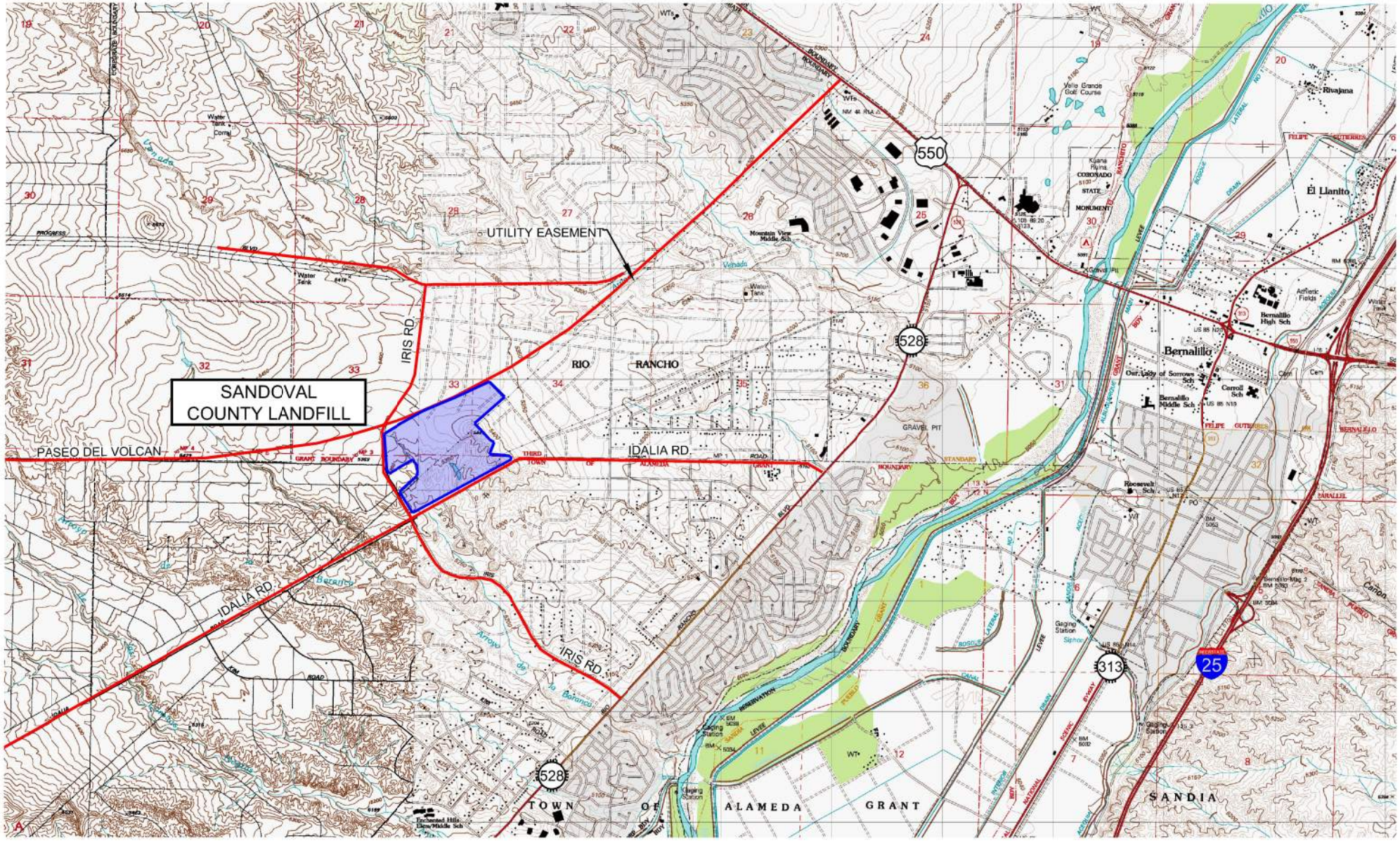
The concentration of nitrate in well MW-7R exceeds the established AML but is below the GWPS of 10 mg/L. A UTLV has not been established for this parameter for well MW-7R. The June 2023 analytical result is likely a result of natural fluctuations in groundwater quality monitored by this well.

5.0 SUMMARY AND CONCLUSIONS

With the few exceptions noted above, the values of detected parameters are generally consistent with values reported for previous monitoring events; and the geochemical signature of site groundwater remains consistent with historical background water quality. Therefore, it is recommended that annual groundwater sampling at wells MW-2R, 3R, 5R, 6R, and 7R for the current approved alternate parameter list (Exhibit B) continue at the site. The analytical data evaluation and conclusions presented in this Report have been reviewed and verified by a Qualified Groundwater Scientist; and the Certification Statement of Mr. Andrew N. Yuhas, PG, is provided as Exhibit H.

Exhibit A: Site Location Map

FILE NAME: A:\2022\40111.22\03_DSGN\01_DWG\050_CIVIL\02_CONTENT\Groundwater\SITE LOCATION ATT 1 PARKHILL LAYOUT.dwg PRINTED: Thursday, August 03, 2023 - 12:15pm



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Sandoval County Landfill
Groundwater Monitoring June 7, 2023

Sandoval County
2708 Iris Road
Rio Rancho, NM 87144

NORTH

SITE LOCATION MAP

Issue:	FINAL
Date:	08/03/2023
Project No:	40111.22
Sheet:	EXHIBIT A

Exhibit B: Approved Alternate Parameter List and Monitoring Schedule

Sandoval County Landfill

ALTERNATE PARAMETER LIST

Inorganic Parameters	EPA Method
Ammonia as N, NH_3-N	350.2
Bicarbonate, HCO_3^- (as $CaCO_3$)	310.1
Carbonate, CO_3^{2-} (as $CaCO_3$)	310.1
Nitrate as N, NO_3-N	300.0
Phosphate, PO_4	300.0
Chloride, Cl^-	300.0
Fluoride, F	300.0
Sulfate, SO_4^{2-}	300.0
Total Dissolved Solids, TDS	160.1
Total Kjeldahl Nitrogen, TKN	351.3
Total Nitrogen, TN	Calculated
Total Organic Carbon, TOC	415.2
pH	
Specific Conductivity	
Aluminum, Al	200.7
Arsenic, As	200.8
Barium, Ba	200.7
Calcium, Ca	200.7
Chromium, Cr	200.7
Cobalt, Co	200.7
Iron, Fe	200.7
Lead, Pb	200.8
Magnesium, Mg	200.7
Manganese, Mn	200.7
Potassium, K	200.7
Sodium, Na	200.7
Uranium, U	200.8
Zinc, Zn	200.7
All Standard Landfill VOCs	8260
1,2-Dibromo-3-chloropropane	504
1,2-Dibromoethane	504
Total Phenolics	420.3/9067
Additional bottle Sets:	

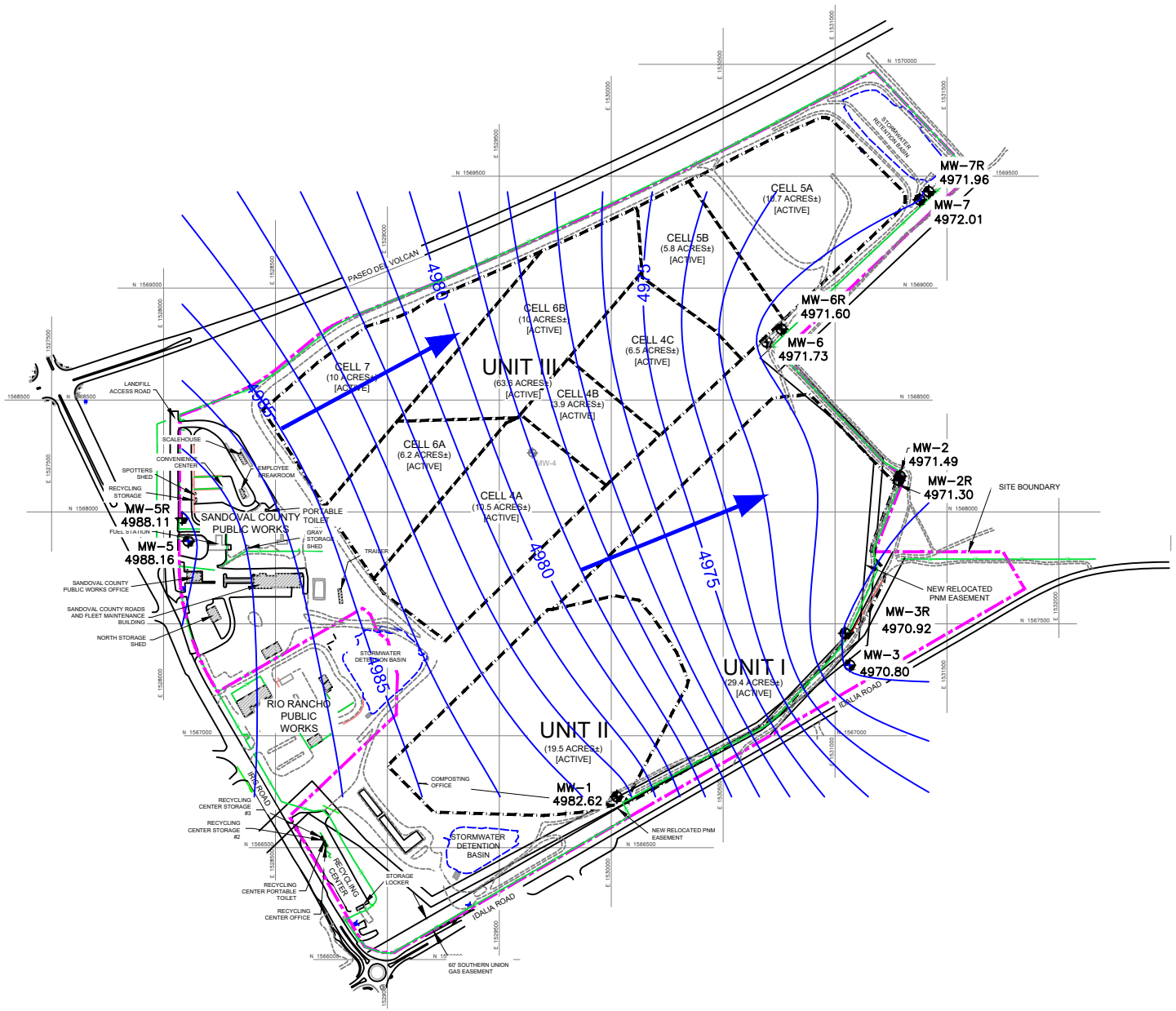
8260 Field Blank (3 VOAs)

8260 Dupe (3 VOAs)

Trip Blank

Exhibit C: Groundwater Contour Map (June 7, 2022)

FILE NAME: A:\2022\40111.22\03_DSGN\01_DWG\050_CIVIL\02_CONTENT\Groundwater\June 2023_GW-Elev.dwg PRINTED: Friday, September 01, 2023 - 11:38am



LEGEND

- FACILITY BOUNDARY
- UNIT BOUNDARY
- CELL BOUNDARY
- FENCE LINE
- PAVED ROAD
- UNPAVED ROAD
- 4980 — GROUNDWATER ELEVATION CONTOURS (FEET ABOVE MEAN SEA LEVEL)
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- MW-1 4982.62 — GROUNDWATER MONITORING WELL GROUNDWATER ELEVATION
- MW-4 — GROUNDWATER MONITORING WELL (DECOMMISSIONED)
- SITE GRID

NORTH

0' 700'

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Sandoval County Landfill Groundwater Monitoring June 7, 2023

Sandoval County
2708 Iris Road
Rio Rancho, NM 87144

NORTH

GROUNDWATER CONTOUR MAP

Issue:	FINAL
Date:	08/03/23
Project No:	40111.22
Sheet:	EXHIBIT C

Parkhill

Exhibit D: Field Data Summary, Monitoring Well Details, and Field Notes

Exhibit D - Groundwater Monitoring Well and Field Data Summary

Groundwater Sampling Field Data

Well I.D.	Sampling Date	Top of Well Elevation[1] (fmsl)	Depth to Water[2] (fbtow)	Temperature[3] (°C)	pH[3] (standard units)	Specific Conductivity[3] (µS/cm)	Purge Volume[4] (gal)	Groundwater Elevation (fmsl)
MW-1	NS	5324.82	342.20	NS	NS	NS	NS	4982.62
MW-2	NS	5416.19	444.70	NS	NS	NS	NS	4971.49
MW-2R	06/07/23	5417.39	446.09	19.7	7.70	815	20.5	4971.30
MW-3	NS	5376.25	405.45	NS	NS	NS	NS	4970.80
MW-3R	06/07/23	5380.42	409.50	21.7	7.90	810	34.5	4970.92
MW-5	NS	5364.40	376.24	NS	NS	NS	NS	4988.16
MW-5R	06/07/23	5366.52	378.41	20.5	7.70	1032	95.0	4988.11
MW-6	NS	5423.65	451.92	NS	NS	NS	NS	4971.73
MW-6R	06/07/23	5421.99	450.39	20.4	7.80	874	110.0	4971.60
MW-7	NS	5363.96	391.95	NS	NS	NS	NS	4972.01
MW-7R	06/07/23	5363.32	391.36	19.0	7.90	691	110.0	4971.96

Notes:

[1] Survey data for wells MW-1 through MW-5 (03/26/2015); well MW-5R (06/21/2016); wells MW-6, 6R, and 7R (06/11/2018); and wells MW-2R, 3R, and 7 (05/26/2020).

[2] Recorded prior to well purging.

[3] Stabilized field parameter values recorded during purging.

[4] Volume of water purged prior to sample collection.

fmsl: feet above mean sea level

fbtow: feet below top of well

- ► For wells MW-1, 2, 3, 5, 6, and 7, top of well is top of PVC well casing
- ► For wells MW-2R through MW-7R, top of well is top of sounding tube

NS: Not Sampled

Exhibit D - Groundwater Monitoring Well and Field Data Summary

Well I.D.	Well Construction Material	Well Diameter (in.)	Top of Well Elevation[1, 2] (fmsl)	Total Depth (fbtow)	Boring Depth (fbgs)	Screen Length (ft.)	Location[1, 2]		Well Completion Date
							Northing	Easting	
MW-1	Sch 80 PVC	4	5324.82	342.92	340	30	1566727.43	1530025.087	6/10/1993
MW-2	Sch 80 PVC	4	5416.19	450.64	448	30	1568159.39	1531290.849	4/12/1996
MW-2R	Sch 80 PVC	4.8	5417.39	476.39	484	40	1568140.73	1531284.39	4/7/2020
MW-3	Sch 80 PVC	4	5376.25	411.47	410	30	1567315.35	1531065.172	4/2/1996
MW-3R	Sch 80 PVC	4.8	5380.42	443.12	451	40	1567457.23	1531045.3	3/26/2020
MW-5	SDR 17 PVC	4.5	5364.40	381.57	384	30	1567869.08	1528110.294	8/11/2003
MW-5R	Sch 80 PVC	5	5366.52	411.12	430	40	1567970.78	1528082.99	4/15/2016
MW-6	Sch 40 PVC	4	5423.65	458.85	462	30	1568758.24	1530695.53	1/28/2004
MW-6R	Sch 80 PVC	5	5421.99	487.14	495	40	1568816.59	1530759.48	5/31/2018
MW-7	Sch 40 PVC	4	5363.96	399.89	404	30	1569394.01	1531377.30	3/5/2004
MW-7R	Sch 80 PVC	5	5363.32	427.93	430	40	1569430.16	1531418.57	3/19/2018

Notes:

[1] Survey data for wells MW-1 through MW-5 (03/26/2015); well MW-5R (06/21/2016); wells MW-6, 6R, and 7R (06/11/2018); and wells MW-2R, 3R, and 7 (05/26/2020).

[2] Well elevation and location data:

- ► For wells MW-1, 2, 3, 5, 6, and 7, survey data recorded at top of PVC well casing (north side)
- ► For wells MW-2R through MW-7R, survey data recorded at top of sounding tube (north side)

fmsl: feet above mean sea level

fbtow: feet below top of well

- ► For wells MW-1, 2, 3, 5, 6, and 7, top of well is top of PVC well casing
- ► For wells MW-2R through MW-7R, top of well is top of sounding tube

fbgs: feet below ground surface

Site: Sandoval County Landfill

Samplers: AY/TZ

Observers: —

Site/Well Condition: good good

Well ID: MW-2R

Depth-to-water: 446.09

Total Depth: 476.39

Measured from: top of sandinghole

Date: 6/7/23

Ambient Temperature: 68° F

Wind Direction/Speed: 5-10, NW

Recent Precipitation: 6-5-23, 0.34"

Equipment Information

Sampling Method: Low Flow

One Well Volume (feet, gallons)
(476.39 - 446.09) = 30.3 feet
(Total Depth - DTW) = well column

30.3 x 0.945 = 28.63 gallons
(Well Column x 0.945) = 1 well-volume

Three Well Volumes
28.63 x 3 = 85.89 gallons
1 well-volume x 3 = 3 well-volumes

Pump Make: **Grundfos® Refi-Flo 4**

Pump On: 1106 Water Out: 1110

Generator Fuel:				Electric Pump
	Beginning	Mid	Final	
Hz	94/92	92	92	
disch. Rate				

Time	Gallons Removed	°C	pH	SC units mS	Observations	Pumping Rate	DTW
1115	5.0	20.3	8.2	809	clr, slight Sulf	92	
1120	8.75	18.8	7.7	812	clr, slight sulf.	92	460.95
1125	9.25	18.8	7.7	820	— " —	92	461.50
1130	11.5	19.0	7.7	808	— " —	92	461.79
1135	13.5	19.1	7.7	819	— " —	92	462.30
1140	15.25	19.1	7.7	819	— " —	92	462.79
1145	17.20	19.6	7.8	813	— " —	92	463.30
1150	19.0	19.5	7.8	816	— " —	92	463.94
1155	20.5	19.7	7.7	813	— " —	92	463.98

Volume Purged: 20.5 gallons

Sample Start: 1156

Sample End: 1205

Field Blank: —

Duplicate: —

Filtered: no

Notes: 5-min - started @ 94Hz, stepped to 92 @ 5gal

Sampler(s): Andy Yuhas
Name
Signature

Tyler Zack
Name
Signature

Groundwater Monitoring Field Notes

Site: Sandoval County Landfill

Samplers: TZ / AY

Observers: —

Site/Well Condition: good / good

Well ID: MW-3R

Depth-to-water: 409.50

Total Depth: 443.12

Measured from: top of sandbox

Date: 6/7/23

Ambient Temperature: 73

Wind Direction/Speed: 5-10 ; NW

Recent Precipitation: 6-5-23; 0.34"

Equipment Information

Sampling Method: low flow

One Well Volume (feet, gallons)

(443.12 - 409.50) = 33.62 feet

(Total Depth - DTW) = well column

33.62 x 0.945 = 31.77 gallons

(Well Column x 0.945) = 1 well-volume

Three Well Volumes

31.77 x 3 = 95.31 gallons

1 well-volume x 3 = 3 well-volumes

Pump Make: **Grundfos® Refi-Flo 4**

Pump On: 1237 Water Out: 1246

Generator Fuel:	Beginning	Mid	Final	Electric Pump
Hz	92	92	92	
disch. Rate				

Time	Gallons Removed	°C	pH	SC units µS	Observations	Pumping ~~Rate~~ DTW
1241	1.0	19.2	7.8	835	clear, Sulfur odor	420.25
1246	7.5	18.9	7.9	810	clear, Sulfur odor	424.0
1251	13.0	19.1	7.7	820	" "	426.6
1256	18.5	19.6	7.8	805	" "	—
1301	22.5	20.5	7.8	805	clear, Slight Sulfur	431.25
1306	27.0	21.1	7.9	816	clear, Slight odor	433.46
1311	31.0	21.4	7.9	810	clear, Slight Sulfur	435.5
1316	34.5	21.7	7.9	810	clear, Slight Sulfur	436.8

Volume Purged: 34.5 gallons

Sample Start: 1317

Sample End: 1321

Field Blank: —

Duplicate: —

Filtered: no

Notes: 5 min

Sampler(s): Andy Yuhas (Name) (Signature)

Tyler Zack (Name) (Signature)

Groundwater Monitoring Field Notes

Site: Sandoval County Landfill

Samplers: Ay / Tz

Observers: —

Site/Well Condition: good / good

Well ID: MW-5R

Depth-to-water: 378.41

Total Depth: 411.12

Measured from: top of sounding hole

Date: 6/7

Ambient Temperature: 58°

Wind Direction/Speed: 5 NNE

Recent Precipitation: 6-5-23; 0.34"

Equipment Information

Sampling Method: 3WV

One Well Volume (feet, gallons): (411.12 - 378.41) = 32.71 feet
(Total Depth - DTW) = well column

32.71 x 0.945 = 30.91 gallons
(Well Column x 0.945) = 1 well-volume

Three Well Volumes: 30.91 x 3 = 92.73 gallons
1 well-volume x 3 = 3 well-volumes

Pump Make: **Grundfos® Refi-Flo 4**

Pump On: 0735 Water Out: 0737

Generator Fuel:	Beginning	Mid	Final	Electric Pump
Hz	90	90	90	
disch. Rate				

Time	Gallons Removed	°C	pH	SC units µS	Observations	Pumping Rate
0739	5.0	17.2	6.3	1030	dr, no odor	90
0745	20	19.9	6.9	1028	— " —	90
0750	35	~~18~~.6	7.4	1049	— " —	90
0756	50	19.8	7.6	1021	— " —	90
0802	65	20.7	7.6	1037	— " —	90
0807	80	20.1	7.7	1021	— " —	90
0813	95	20.5	7.7	1032	— " —	90

Volume Purged: 95 gallons

Sample Start: 0815

Sample End: 0818

Field Blank: 0825

Duplicate: 0819

Filtered: no

Sampler(s): Andy Yohe (Name) — Signature

Tyler Zack (Name) — Signature

Notes:

Page 3 of 5

Groundwater Monitoring Field Notes

Site: Sandoval County Landfill

Samplers: AY/TZ

Observers: —

Site/Well Condition: Good/good

Well ID: MW-6R

Depth-to-water: 450.39

Total Depth: 487.14

Measured from: top of Sanding hole

Date: 6/7/23

Ambient Temperature: 65°F

Wind Direction/Speed: 4mph South

Recent Precipitation: 6-5-23 ; 0.34"

Equipment Information

Sampling Method: 3WV

One Well Volume (feet, gallons): (487.14 - 450.39) = 36.75 feet
(Total Depth - DTW) = well column

36.75 x 0.945 = 34.73 gallons
(Well Column x 0.945) = 1 well-volume

Three Well Volumes: 34.73 x 3 = 104.19 gallons
1 well-volume x 3 = 3 well-volumes

Pump Make: **Grundfos® Refi-Flo 4**

Pump On: 0956 Water Out: 0959

Generator Fuel:	Beginning	Mid	Final	Electric Pump
Hz	100	100	100	
disch. Rate				

Time	Gallons Removed	°C	pH	SC units µS	Observations	Pumping Rate
1000	5	18.2	8.0	855	clr, no odor	100
1005	20	19.0	7.7	867	" "	100
1011	40	19.8	7.7	875	" "	100
1017	60	20.6	7.8	861	" "	100
1024	80	20.5	7.8	862	" "	100
1030	100	20.4	7.8	877	" "	100
1033	110	20.4	7.8	874	" "	100

Volume Purged: 110 gallons

Sample Start: 1035

Sample End: 1040

Field Blank: —

Duplicate: —

Filtered: No

Sampler(s): Andy Yuhas (Name) (Signature)

Tyler Zack (Name) (Signature)

Notes: —

Groundwater Monitoring Field Notes

Site: Sandoval County Landfill

Samplers: AY / TZ

Observers: —

Site/Well Condition: good / good

Well ID: MW-7R

Depth-to-water: 391.36

Total Depth: 427.93

Measured from: top of sounding tube

Date: 6/7/23

Ambient Temperature: 60°F

Wind Direction/Speed: 2 mph NE

Recent Precipitation: 6-5-23, 0.34"

Equipment Information

Sampling Method: 3W4

One Well Volume (feet, gallons)

(427.93 - 391.36) = 36.57 feet

(Total Depth - DTW) = well column

36.57 x 0.945 = 34.56 gallons

(Well Column x 0.945) = 1 well-volume

Three Well Volumes

34.56 x 3 = 103.68 gallons

1 well-volume x 3 = 3 well-volumes

Pump Make: **Grundfos® Refi-Flo 4**

Pump On: 0851 Water Out: 0852

Generator Fuel:	Beginning	Mid	Final	Electric Pump
Hz	94	94	94	
disch. Rate				

Time	Gallons Removed	°C	pH	SC units µS	Observations	Pumping Rate
0855	5	17.6	8.1	699	clear, no odor	94
858	20	18.6	8.4	678	— " —	94
0905	40	19.1	7.8	679	— " —	94
0911	60	19.5	7.8	670	— " —	94
0916	80	19.3	7.9	683	— " —	94
0921	100	19.3	7.8	691	— " —	94
0924	110	19.0	7.9	691	— " —	94

Volume Purged: 110 gallons

Sample Start: 0925

Sample End: 0930

Field Blank: —

Duplicate: —

Filtered: No

Sampler(s): Andy Yates (Name) (Signature)

Tyler Zark (Name) (Signature)

Notes:

Page 5 of 5

Groundwater Monitoring Field Notes

Site: SLLF **Samplers:** AY/TZ **Date:** 6/7

Ambient Temperature: 62° Wind Direction/Speed: 0-5 NW Recent Precipitation: 6-5-23, 0.34"

Well ID: MW-5
Depth-to-water: 376.29
Total Depth: -
Measured from: Top of Casing
Notes:

Well ID: MW-7
Depth-to-water: 391.95
Total Depth: -
Measured from: top of casing
Notes:

Well ID: MW-6
Depth-to-water: 415.92
Total Depth: -
Measured from: Top of casing
Notes: ~~top of~~

Well ID: MW-1
Depth-to-water: 342.20
Total Depth:
Measured from: Top of casing
Notes:

Well ID: MW-2
Depth-to-water: 444.70
Total Depth: -
Measured from: top of casing
Notes:

Well ID: MW-3
Depth-to-water: 405.45
Total Depth: -
Measured from: top of Casing
Notes:

Well ID:
Depth-to-water:
Total Depth:
Measured from:
Notes:

Well ID:
Depth-to-water:
Total Depth:
Measured from:
Notes:

Well ID:
Depth-to-water:
Total Depth:
Measured from:
Notes:

Parkhill

Exhibit E: Summary of Inorganic Parameter Analytical Results

Exhibit E - Summary of Organic Parameter Analytical Results

Notes for Summary of Inorganic Parameter Analytical Results

(1) All parameter concentrations expressed in mg/L, except for Field pH (standard units), Field SC (µs/cm), Field Temperature (°C).

The following statistical parameters were updated on 07/03/14. The well/parameter-specific statistical values (i.e., calculated BCV, calculated/established UTLV, and calculated/established AML) included in **Attachment 5** were approved by NMED on 02/09/15.

Calculated BCV (2014) = Calculated Background Concentration Value

- The simple mean (i.e., arithmetic average) of the concentrations of each parameter reported as detected a minimum of 2 times within the background data set (1996 - 03/2014). If reported as detected only once, the BCV is assigned the value of the single detection. If reported as 100% non-detect, the BCV is assigned the value of the highest laboratory practical quantitation limit (PQL) within the background data set (1996 - 2014).

Regulatory Presumptive AML = Regulatory Presumptive Assessment Monitoring Level (Updated January 2020)

2014 Established AML = Established Assessment Monitoring Level

- Parameter and well-specific value defined as the greater of either the regulatory presumptive AML (05/05/10) or the calculated BCV for each well/parameter combination.

2014 Calculated UTLV = Calculated Upper Tolerance Limit Value

- Parameter and well-specific statistical value calculated via evaluation of applicable background monitoring analytical data by Sanitas®.
- Non-detects are assigned a value of ½ the laboratory PQL for UTLV statistical calculations with Sanitas™.

2014 Established UTLV = Established Upper Tolerance Limit Value

- Equals the Calculated UTLV if Calculated UTLV > Established AML
- Parameters for which the calculated UTLV ≤ the regulatory presumptive AML were not assigned an established UTLV.
- Parameters for which the background dataset contained 100% non-detects were not assigned an established UTLV.

N/A = UTLV not assigned

GWPS = Regulatory Groundwater Protection Standard (Updated January 2020)

Bold laboratory analytical values for the current event indicate an exceedance of the Established AML.

Bold italics laboratory analytical values for the current event indicate an exceedance of the Established UTLV.

Parenthetical values indicate the results of dissolved metals analyses.

	Indicates no sampling/analysis performed for corresponding monitoring date
D	The D qualifier indicates the sample was diluted by the laboratory prior to analysis
*	Field data not available. Laboratory data provided where available.
( )	Parenthetical values represent dissolved metals analytical results

Exhibit E - Summary of Inorganic Parameter Analytical Results

MW-2R	MW-2		MW-2R				2014 Calculated BCV	Regulatory Presumptive AML	2014 Calculated UTLV	2014 Established AML	2014 Established UTLV	GWPS
PARAMETER[(1)]	**06/07/18**	**04/12/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**						
Fluoride, F	0.66	<0.50	0.79	**0.84**	0.75	0.66	0.81	0.8	1.045	0.81	1.045	1.6
Chloride, Cl^-	69	79	100	87	74	74	83.18	187.5	89.36	187.5	N/A	250
Nitrate as N, NO_3-N	1.0	<0.50	<0.50	<0.50	0.22	0.16	0.94	5.0	1.4	5.0	N/A	10
Sulfate, SO_4^{2-}	47	38	96	56	54	52	58.56	450	69.76	450	N/A	600
Aluminum, Al	0.160	0.044	0.59	0.040	0.38	1.1	0.43	3.75	1.5	3.75	N/A	5.0
Barium, Ba	0.050	0.079	0.058	0.054	0.050	0.059	0.052	1.0	0.06729	1.0	N/A	2.0
Chromium, Cr	**0.0160**	**0.026**	0.0067	<0.0060	<0.0060	<0.0060	0.026	0.025	0.052	0.026	0.052	0.05
Cobalt, Co	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.030	0.0375	0.015	0.0375	N/A	0.05
Iron, Fe	1.3	**2.3**	0.55	0.20	0.34	0.91	1.43	0.75	6.654	1.43	6.654	1.0
Manganese, Mn	0.0099	***0.44***	***0.33***	***0.25***	0.12	0.055	0.13	0.15	0.304	0.15	0.304	0.2
Zinc, Zn	<0.010	0.015	0.032	<0.010	0.011	0.035	0.071	7.5	0.0729	7.5	N/A	10
Arsenic, As	0.0041	***0.012***	**0.0070**	**0.0058**	**0.0075**	**0.0059**	0.0057	0.005	0.0079	0.0057	0.0079	0.01
Lead, Pb	0.001	0.0013	0.0024	0.00056	0.00070	0.0014	0.01	0.015	0.005	0.025	N/A	0.0075
Uranium, U	0.0018	0.0013	0.0048	0.0029	0.0039	0.0034	0.0036	0.015	1.25	0.015	1.25	0.03
Total Dissolved Solids, TDS	372	353	545	460	391	366	365.36	750	486	750	N/A	1,000
Field pH (standard units)	8.0	7.47	7.80	7.87	7.90	7.70	7.70	6 - 9	7.068 - 8.305	6 - 9	N/A	6 - 9
Subsection A Organic Parameter	**06/07/18**	**04/12/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**	**2014 Calculated BCV**	**Regulatory Presumptive AML**	**2014 Calculated UTLV**	**2014 Established AML**	**2014 Established UTLV**	**GWPS**
Phenolics (total)	<0.0025	<0.0025	**0.025**	<0.025	<0.0025	<0.0030	0.005	0.00375	0.0025	0.00375	N/A	0.005
Subsection C Parameters	**06/07/18**	**04/12/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**	**2014 Calculated BCV**	**Regulatory Presumptive AML**	**2014 Calculated UTLV**	**2014 Established AML**	**2014 Established UTLV**	**GWPS**
Phosphorus, Orthophosphate (As P)	<0.50	<2.5	<2.5	<2.5	<0.50	<0.50	1.0	__	__	__	__	__
Calcium, Ca	37	42	41	39	38	42	41	__	__	__	__	__
Magnesium, Mg	4.3	4.9	5.8	5.3	4.9	5.7	4.8	__	__	__	__	__
Potassium, K	4.2	4.2	5.6	5.2	4.6	5.2	4.5	__	__	__	__	__
Sodium, Na	75	74	140	110	87	85	72	__	__	__	__	__
Total Organic Carbon, TOC	3.9	15	8.1	3.9	2.5	2.3	11.8	__	__	__	__	__
Ammonia as N, NH_3-N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	__	__	__	__	__
Total Nitrogen, TN	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	1.0	__	__	__	__	__
Bicarbonate, HCO_3^- (as $CaCO_3$)	111.5	144.8	172.2	166.6	145.2	145.2	110	__	__	__	__	__
Carbonate, CO_3^{2-} (as $CaCO_3$)	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	2.0	__	__	__	__	__
Total Kjeldahl Nitrogen, TKN	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	0.6	__	__	__	__	__
Field Temperature (^oC)	23.3	19.1	22.9	24.0	23.8	19.7	19.0	__	__	__	__	__
Field SC (mS/cm)	573	648	944	766	798	815	550	__	__	__	__	__

Exhibit E - Summary of Inorganic Parameter Analytical Results

MW-3R	MW-3		MW-3R				2014 Calculated BCV	Regulatory Presumptive AML	2014 Calculated UTLV	2014 Established AML	2014 Established UTLV	GWPS
PARAMETER[(1)]	**06/07/18**	**04/12/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**						
Fluoride, F	<0.50	0.73	0.71	0.76	0.68	0.60	0.69	0.8	0.8	0.8	0.842	1.6
Chloride, Cl^-	78	82	120	88	74	72	80.93	187.5	87.5	187.5	N/A	250
Nitrate as N, NO_3-N	1.1	<0.50	<0.50	<0.50	<0.10	<0.10	1.1	5.0	1.3	5.0	N/A	10
Sulfate, SO_4^{2-}	52	63	120	67	60	51	60.93	450	69	450	N/A	600
Aluminum, Al	2.00	0.14	0.41	0.40	2.40	1.1	0.33	3.75	1.50	3.75	N/A	5.0
Barium, Ba	0.056	0.070	0.066	0.054	0.061	0.053	0.05	1.0	0.1	0.5	N/A	2.0
Chromium, Cr	0.042	**0.10**	<0.0060	<0.0060	<0.0060	<0.0060	0.027	0.025	0.078	0.0269	0.078	0.05
Cobalt, Co	<0.0060	0.019	<0.0060	<0.0060	<0.0060	<0.0060	0.03	0.0375	0.0150	0.0375	N/A	0.05
Iron, Fe	**5.4**	**2.2**	0.89	0.81	**1.7**	0.51	0.91	0.75	6.14	0.912	6.135	1.0
Manganese, Mn	0.055	**0.94**	**0.76**	**0.26**	0.14	0.072	0.04	0.15	0.05	0.15	N/A	0.2
Zinc, Zn	<0.010	0.013	0.034	0.028	0.075	0.047	0.06	7.5	0.1	7.5	N/A	10
Arsenic, As	0.0075	**0.0085**	0.0068	0.0046	0.0049	0.0045	0.0069	0.005	0.010	0.0069	0.01	0.01
Lead, Pb	0.0015	0.0016	0.0027	0.00079	0.0021	0.0013	0.010	0.0150	0.005	0.025	N/A	0.0075
Uranium, U	0.0020	0.0020	0.0046	0.0033	0.0029	0.0031	0.0032	0.015	1.250	0.015	1.25	0.03
Total Dissolved Solids, TDS	366	361	661	512	415	388	363.20	750	385	750	N/A	1,000
Field pH (standard units)	7.9	7.57	7.63	7.74	7.70	7.90	7.77	6 - 9	7.378 - 8.314	6 - 9	N/A	6 - 9
Subsection A Organic Parameter	**06/07/18**	**04/12/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**	**2014 Calculated BCV**	**Regulatory Presumptive AML**	**2014 Calculated UTLV**	**2014 Established AML**	**2014 Established UTLV**	**GWPS**
Phenolics (total)	<0.0025	<0.0025	**0.04**	<0.0025	<0.0025	<0.0030	0.0050	0.00375	0.00250	0.00375	N/A	0.005
Subsection C Parameters	**06/07/18**	**04/12/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**	**2014 Calculated BCV**	**Regulatory Presumptive AML**	**2014 Calculated UTLV**	**2014 Established AML**	**2014 Established UTLV**	**GWPS**
Phosphorus, Orthophosphate (As P)	<2.5	<2.5	<2.5	<2.5	<0.50	<0.50	1.0	__	__	__	__	__
Calcium, Ca	40	45	53	46	45	46	42	__	__	__	__	__
Magnesium, Mg	4.8	5.0	7.6	6.2	6.1	6.1	4.8	__	__	__	__	__
Potassium, K	4.5	4.3	5.9	5.2	5.3	5.2	4.3	__	__	__	__	__
Sodium, Na	72	68	140	100	88	81	74	__	__	__	__	__
Total Organic Carbon, TOC	2.1	6.1	21	27	7.5	5.4	8	__	__	__	__	__
Ammonia as N, NH_3-N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	__	__	__	__	__
Total Nitrogen, TN	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	__	__	__	__	__
Bicarbonate, HCO_3^- (as $CaCO_3$)	107.1	124.6	179.0	170.8	151.2	151.2	103	__	__	__	__	__
Carbonate, CO_3^{2-} (as $CaCO_3$)	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	2.0	__	__	__	__	__
Total Kjeldahl Nitrogen, TKN	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	__	__	__	__	__
Field Temperature (^oC)	25.1	18.1	22.5	24.1	21.7	21.7	18.9	__	__	__	__	__
Field SC (mS/cm)	562	667	1,070	820	808	815	566	__	__	__	__	__

Exhibit E - Summary of Inorganic Parameter Analytical Results

MW-5R	MW-5R						2014 Calculated BCV	Regulatory Presumptive AML	2014 Established AML	2014 Calculated UTLV	2014 Established UTLV	GWPS
PARAMETER[(1)]	**06/07/18**	**04/04/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**						
Fluoride, F	0.58	0.71	0.62	0.73	0.65	0.58	0.77	0.8	0.8	0.9399	0.940	1.6
Chloride, Cl^-	160	180	160	160	170	170	176.00	187.5	187.5	206.4	206.4	250
Nitrate as N, NO_3-N	0.71	0.63	0.60	0.58	0.66	0.63	1.0	5.0	5.0	0.5	N/A	10
Sulfate, SO_4^{2-}	31	34	32	28	35	32	29.84	450	450	47.94	N/A	600
Aluminum, Al	<0.020	<0.020	<0.020	<0.020	<0.020	0.028	0.16	3.75	3.75	1.5	N/A	5.0
Barium, Ba	0.09	0.082	0.083	0.090	0.086	0.080	0.12	1.0	0.5	0.2291	N/A	2.0
Chromium, Cr	<0.0060	<0.0060	<0.0060	0.0060	<0.0060	<0.0060	0.047	0.025	0.047	0.14	0.14	0.05
Cobalt, Co	<0.0060	<0.0060	<0.0060	0.0060	<0.0060	<0.0060	0.03	0.0375	0.0375	0.015	N/A	0.05
Iron, Fe	0.0220	0.022	<0.050	0.050	<0.050	<0.050	1.20	0.75	1.20	1.649	1.649	1.0
Manganese, Mn	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.11	0.15	0.15	0.4475	0.4475	0.2
Zinc, Zn	<0.010	<0.010	<0.010	<0.010	<0.010	0.011	0.80	7.5	7.5	1.3	N/A	10
Arsenic, As	0.0069	0.0073	0.0079	**0.0084**	0.0079	0.0069	0.0080	0.005	0.0078	0.012	0.012	0.01
Lead, Pb	<0.00050	<0.00050	<0.00050	0.0005	<0.00050	<0.00050	0.020	0.0015	0.025	0.017	N/A	0.0075
Uranium, U	0.0019	0.0017	0.0018	0.0018	0.0020	0.0019	0.0026	0.015	0.015	1.25	1.25	0.03
Total Dissolved Solids, TDS	473	462	466	469	442	458	478.47	750	750	545.5	N/A	1,000
Field pH (standard units)	8.0	7.67	7.82	7.80	7.80	7.70	7.53	6 - 9	6 - 9	6.622 - 8.435	N/A	6 - 9
Subsection A Organic Parameter	**06/07/18**	**04/04/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**	**2014 Calculated BCV**	**Regulatory Presumptive AML**	**2014 Established AML**	**2014 Calculated UTLV**	**2014 Established UTLV**	**GWPS**
Phenolics (total)	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0030	0.0041	0.00375	0.00407	0.0049	0.0049	0.005
Subsection C Parameters	**06/07/18**	**04/04/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**	**2014 Calculated BCV**	**Regulatory Presumptive AML**	**2014 Established AML**	**2014 Calculated UTLV**	**2014 Established UTLV**	**GWPS**
Phosphorus, Orthophosphate (As P)	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50	1.0	__	__	__	__	__
Calcium, Ca	45	50	46	49	44	46	45	__	__	__	__	__
Magnesium, Mg	4.9	5.4	5.1	5.3	5.0	5.2	5.1	__	__	__	__	__
Potassium, K	5.2	5.6	5.1	5.5	5.0	5.0	6.0	__	__	__	__	__
Sodium, Na	110	110	120	100	110	100	105	__	__	__	__	__
Total Organic Carbon, TOC	1.6	1.3	1.8	2.2	<1.0	<1.0	8	__	__	__	__	__
Ammonia as N, NH_3-N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	__	__	__	__	__
Total Nitrogen, TN	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	__	__	__	__	__
Bicarbonate, HCO_3^- (as $CaCO_3$)	101.8	100.4	102.0	100.6	100.3	104.3	119	__	__	__	__	__
Carbonate, CO_3^{2-} (as $CaCO_3$)	<2.000	<2.000	<2.0	<2.000	<2.000	<2.000	2.0	__	__	__	__	__
Total Kjeldahl Nitrogen, TKN	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.4	__	__	__	__	__
Field Temperature (^oC)	21.5	20.9	20.9	21.3	21.0	20.5	16.6	__	__	__	__	__
Field SC (mS/cm)	792	868	878	880	973	1032	798	__	__	__	__	__

Exhibit E - Summary of Inorganic Parameter Analytical Results

MW-6R	MW-6R						2014 Calculated BCV	Regulatory Presumptive AML	2014 Established AML	2014 Calculated UTLV	2014 Established UTLV	GWPS
PARAMETER[(1)]	**06/07/18**	**04/04/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**						
Fluoride, F	0.53	0.65	0.55	0.62	0.58	0.51	0.70	0.8	0.8	0.8235	0.8235	1.6
Chloride, Cl^-	100	120	110	110	110	110	124.29	187.5	187.5	130	N/A	250
Nitrate as N, NO_3-N	1.1	1.2	1.2	1.1	1.4	1.40	0.89	5.0	5.0	1.0	N/A	10
Sulfate, SO_4^{2-}	42	48	44	45	48	47	48.86	450	450	53.59	N/A	600
Aluminum, Al	<0.020	<0.020	<0.020	0.035	0.036	0.068	0.15	3.75	3.75	1.5	N/A	5.0
Barium, Ba	0.050	0.050	0.050	0.052	0.049	0.051	0.053	1.0	0.5	0.06468	N/A	2.0
Chromium, Cr	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.012	0.025	0.025	0.016	N/A	0.05
Cobalt, Co	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.03	0.0375	0.0375	0.015	N/A	0.05
Iron, Fe	0.081	0.064	<0.050	0.052	0.064	0.082	0.17	0.75	0.75	0.22	N/A	1.0
Manganese, Mn	0.0040	0.0032	<0.0020	<0.0020	0.0021	0.0024	0.079	0.15	0.15	0.15	N/A	0.2
Zinc, Zn	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.030	7.5	7.5	0.05	N/A	10
Arsenic, As	0.0062	0.0074	0.0082	**0.0088**	**0.0088**	**0.0087**	0.0086	0.005	0.0086	0.011	0.011	0.01
Lead, Pb	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.01	0.0015	0.025	0.005	N/A	0.0075
Uranium, U	0.0018	0.0017	0.0018	0.0018	0.0020	0.0019	0.0025	0.015	0.015	1.25	1.25	0.03
Total Dissolved Solids, TDS	407	409	422	420	391	397	414.50	750	750	453.4	N/A	1,000
Field pH (standard units)	8.1	7.64	7.84	7.80	7.90	7.80	7.84	6 - 9	6 - 9	7.555 - 8.217	N/A	6 - 9
Subsection A Organic Parameter	**06/07/18**	**04/04/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**	**2014 Calculated BCV**	**Regulatory Presumptive AML**	**2014 Established AML**	**2014 Calculated UTLV**	**2014 Established UTLV**	**GWPS**
Phenolics (total)	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0030	0.003	0.00375	0.00375	0.0015	N/A	0.005
Subsection C Parameters	**06/07/18**	**04/04/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**	**2014 Calculated BCV**	**Regulatory Presumptive AML**	**2014 Established AML**	**2014 Calculated UTLV**	**2014 Established UTLV**	**GWPS**
Phosphorus, Orthophosphate (As P)	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50	1.0	__	__	__	__	__
Calcium, Ca	44	45	45	47	44	47	44	__	__	__	__	__
Magnesium, Mg	4.9	5.0	5.2	5.2	5.0	5.4	5.3	__	__	__	__	__
Potassium, K	4.8	4.7	4.8	5.0	4.8	5.0	4.7	__	__	__	__	__
Sodium, Na	80	82	86	86	84	87	91	__	__	__	__	__
Total Organic Carbon, TOC	<1.0	<1.0	<1.0	5.5	7.7	9.1	11.2	__	__	__	__	__
Ammonia as N, NH_3-N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	__	__	__	__	__
Total Nitrogen, TN	1.1	1.2	1.2	3.3	1.4	1.4	1.0	__	__	__	__	__
Bicarbonate, HCO_3^- (as $CaCO_3$)	102.4	102.2	104.0	102.4	103.9	108.4	109	__	__	__	__	__
Carbonate, CO_3^{2-} (as $CaCO_3$)	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	2.0	__	__	__	__	__
Total Kjeldahl Nitrogen, TKN	<1.0	<1.0	<1.0	2.2	<1.0	<1.0	1.0	__	__	__	__	__
Field Temperature (°C)	21.1	19.6	19.8	20.1	20.2	20.4	21.1	__	__	__	__	__
Field SC (mS/cm)	668	745	735	749	830	874	728	__	__	__	__	__

Exhibit E - Summary of Inorganic Parameter Analytical Results

MW-7R	MW-7R						2014 Calculated BCV	Regulatory Presumptive AML	2014 Established AML	2014 Calculated UTLV	2014 Established UTLV	GWPS
PARAMETER[(1)]	**06/07/18**	**04/04/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**						
Fluoride, F	**0.86**	**0.96**	0.84	***0.99***	**0.88**	0.79	0.86	0.8	0.86	0.9776	0.9776	1.6
Chloride, Cl^-	48	49	49	53	53	52	43.43	187.5	187.5	48	N/A	250
Nitrate as N, NO_3-N	**6.2**	**6.6**	**6.2**	**5.4**	**6.2**	**6.9**	2.56	5.0	5.0	3.2	N/A	10
Sulfate, SO_4^{2-}	43	44	42	44	47	46	62.07	450	450	84.24	N/A	600
Aluminum, Al	0.085	0.39	0.11	0.35	0.16	0.13	0.19	3.75	3.75	1.5	N/A	5.0
Barium, Ba	0.051	0.059	0.53	0.057	0.054	0.053	0.060	1.0	0.5	0.08	N/A	2.0
Chromium, Cr	<0.0060	<0.030	<0.0060	<0.0060	<0.0060	<0.0060	0.017	0.025	0.025	0.028	0.028	0.05
Cobalt, Co	<0.0060	<0.030	<0.0060	<0.0060	<0.0060	<0.0060	0.03	0.0375	0.0375	0.015	N/A	0.05
Iron, Fe	0.090	0.38	0.14	0.32	0.15	0.14	0.19	0.75	0.75	0.31	N/A	1.0
Manganese, Mn	0.013	0.019	0.013	0.012	0.0069	0.0040	0.074	0.15	0.15	0.19	0.190	0.2
Zinc, Zn	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	0.050	7.5	7.5	0.025	N/A	10
Arsenic, As	0.0048	**0.0064**	0.0063	**0.0070**	***0.0071***	***0.0070***	0.006	0.005	0.006	0.007	0.007	0.01
Lead, Pb	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.01	0.0150	0.025	0.005	N/A	0.0075
Uranium, U	0.0020	0.0021	0.0018	0.0019	0.0019	0.0018	0.0031	0.015	0.015	1.25	1.25	0.03
Total Dissolved Solids, TDS	332	314	316	342	327	321	322.64	750	750	358	N/A	1,000
Field pH (standard units)	8.0	7.67	7.91	7.90	8.10	7.90	7.86	6 - 9	6 - 9	7.639 - 8.211	N/A	6 - 9
Subsection A Organic Parameter	**06/07/18**	**04/04/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**	**2014 Calculated BCV**	**Regulatory Presumptive AML**	**2014 Established AML**	**2014 Calculated UTLV**	**2014 Established UTLV**	**GWPS**
Phenolics (total)	<2.5	<0.0025	<0.0025	<0.0025	<0.0025	<0.0030	0.003	0.00375	0.00375	0.0015	N/A	0.005
Subsection C Parameters	**06/07/18**	**04/04/19**	**06/17/20**	**06/10/21**	**06/08/22**	**06/07/23**	**2014 Calculated BCV**	**Regulatory Presumptive AML**	**2014 Established AML**	**2014 Calculated UTLV**	**2014 Established UTLV**	**GWPS**
Phosphorus, Orthophosphate (As P)	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50	1.0	__	__	__	__	__
Calcium, Ca	35	36	36	38	36	38	37	__	__	__	__	__
Magnesium, Mg	4.2	4.6	4.4	4.7	4.4	4.6	4.9	__	__	__	__	__
Potassium, K	4.1	4.1	4.2	4.3	4.0	4.3	4.3	__	__	__	__	__
Sodium, Na	68	61	70	66	66	69	61	__	__	__	__	__
Total Organic Carbon, TOC	<1.0	2.2	2.2	<1.0	<1.0	<1.0	3.8	__	__	__	__	__
Ammonia as N, NH_3-N	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	__	__	__	__	__
Total Nitrogen, TN	6.2	6.6	6.2	5.4	6.2	6.3	2.6	__	__	__	__	__
Bicarbonate, HCO_3^- (as $CaCO_3$)	107.8	107.1	107.8	105.7	105.3	108.8	119	__	__	__	__	__
Carbonate, CO_3^{2-} (as $CaCO_3$)	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	2.0	__	__	__	__	__
Total Kjeldahl Nitrogen, TKN	<1.0	<1.0	<1.0	<1.0	1.0	<1.0	1.0	__	__	__	__	__
Field Temperature (^oC)	19.8	19.4	19.3	19.3	19.4	19.0	21.1	__	__	__	__	__
Field SC (mS/cm)	511	570	570	579	655	691	512	__	__	__	__	__

Parkhill

Exhibit F: Laboratory Analytical Report and Chain-of-Custody Documentation

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 09, 2023

Mike Crepeau
Parkhill
333 Rio Rancho Blvd. N.E., Suite 400
Rio Rancho, NM 87124
TEL: (505) 867-6990
FAX:

RE: Sandoval County Landfill SCLF OrderNo.: 2306367

Dear Mike Crepeau:

Hall Environmental Analysis Laboratory received 8 sample(s) on 6/7/2023 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued July 12, 2023.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-2R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 11:56:00 AM
Lab ID: 2306367-001 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP						Analyst: **mb**	
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	6/13/2023 4:17:55 PM	75492
1,2-Dibromoethane	ND	0.0094		µg/L	1	6/13/2023 4:17:55 PM	75492
EPA 200.8: METALS						Analyst: **bcv**	
Arsenic	0.0059	0.00050		mg/L	1	6/9/2023 11:03:02 AM	75451
Lead	0.0014	0.00050		mg/L	1	6/9/2023 11:03:02 AM	75451
Uranium	0.0034	0.00050		mg/L	1	6/9/2023 11:03:02 AM	75451
EPA METHOD 9060A TOC						Analyst: **SMS**	
Total Organic Carbon	2.3	1.0		mg/L	1	6/9/2023 6:14:39 PM	R97417
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Fluoride	0.66	0.10		mg/L	1	6/20/2023 5:43:43 PM	R97600
Chloride	74	10		mg/L	20	6/8/2023 1:28:49 AM	R97288
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	6/8/2023 1:16:28 AM	R97288
Nitrogen, Nitrate (As N)	0.16	0.10		mg/L	1	6/8/2023 1:16:28 AM	R97288
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	6/8/2023 1:16:28 AM	R97288
Sulfate	52	10		mg/L	20	6/8/2023 1:28:49 AM	R97288
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **CAS**	
Conductivity	670	10		µmhos/c	1	6/8/2023 5:57:04 PM	R97312
SM2320B: ALKALINITY						Analyst: **CAS**	
Bicarbonate (As CaCO3)	145.2	20.00		mg/L Ca	1	6/8/2023 5:57:04 PM	R97312
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/8/2023 5:57:04 PM	R97312
Total Alkalinity (as CaCO3)	145.2	20.00		mg/L Ca	1	6/8/2023 5:57:04 PM	R97312
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **JAG**	
Total Dissolved Solids	366	100	D	mg/L	1	6/15/2023 3:40:00 PM	75579
SM 4500 NH3: AMMONIA						Analyst: **DML**	
Nitrogen, Ammonia	ND	1.0		mg/L	1	6/20/2023 1:22:00 PM	R97590
TOTAL NITROGEN						Analyst: **MRA**	
Nitrogen, Total	ND	1.0		mg/L	1	7/11/2023 2:36:00 PM	R98095
SM4500-H+B / 9040C: PH						Analyst: **CAS**	
pH	8.06		H	pH units	1	6/8/2023 5:57:04 PM	R97312
SM 4500 NORG C: TKN						Analyst: **DML**	
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	6/26/2023 2:02:00 PM	75821
EPA METHOD 200.7: METALS						Analyst: **JRR**	
Aluminum	1.1	0.10	*	mg/L	5	6/19/2023 10:59:29 AM	75451
Barium	0.059	0.0030		mg/L	1	6/12/2023 2:12:00 PM	75451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-2R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 11:56:00 AM
Lab ID: 2306367-001
Matrix: AQUEOUS
Received Date: 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: METALS						Analyst: **JRR**	
Calcium	42	1.0		mg/L	1	6/12/2023 2:12:00 PM	75451
Chromium	ND	0.0060		mg/L	1	6/12/2023 2:12:00 PM	75451
Cobalt	ND	0.0060		mg/L	1	6/12/2023 2:12:00 PM	75451
Iron	0.91	0.25	*	mg/L	5	6/19/2023 10:59:29 AM	75451
Magnesium	5.7	1.0		mg/L	1	6/12/2023 2:12:00 PM	75451
Manganese	0.055	0.0020	*	mg/L	1	6/12/2023 2:12:00 PM	75451
Potassium	5.2	1.0		mg/L	1	6/12/2023 2:12:00 PM	75451
Sodium	85	5.0		mg/L	5	6/12/2023 2:17:07 PM	75451
Zinc	0.035	0.010		mg/L	1	6/12/2023 2:12:00 PM	75451
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Benzene	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Toluene	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Ethylbenzene	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Acetone	ND	10		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Bromoform	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Bromomethane	ND	2.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
2-Butanone	ND	10		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Carbon disulfide	ND	10		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Chlorobenzene	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Chloroethane	ND	2.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Chloroform	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Chloromethane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Dibromomethane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
2-Hexanone	ND	10		µg/L	1	6/13/2023 8:30:15 PM	LF97432
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2023 8:30:15 PM	LF97432

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-2R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 11:56:00 AM
Lab ID: 2306367-001 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
Methylene Chloride	ND	2.5		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Styrene	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Vinyl chloride	ND	1.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Xylenes, Total	ND	2.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Acrylonitrile	ND	10		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Bromochloromethane	ND	2.0		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Iodomethane	ND	10		µg/L	1	6/13/2023 8:30:15 PM	LF97432
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Vinyl acetate	ND	10		µg/L	1	6/13/2023 8:30:15 PM	LF97432
Surr: 1,2-Dichloroethane-d4	118	70-130		%Rec	1	6/13/2023 8:30:15 PM	LF97432
Surr: 4-Bromofluorobenzene	94.9	70-130		%Rec	1	6/13/2023 8:30:15 PM	LF97432
Surr: Dibromofluoromethane	116	70-130		%Rec	1	6/13/2023 8:30:15 PM	LF97432
Surr: Toluene-d8	97.5	70-130		%Rec	1	6/13/2023 8:30:15 PM	LF97432
TOTAL PHENOLICS BY SW-846 9067						Analyst: **JPM**	
Phenolics	ND	3.0		µg/L	1	6/26/2023 8:17:00 AM	75817

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-3R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 1:17:00 PM
Lab ID: 2306367-002 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP						Analyst: **mb**	
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	6/13/2023 4:32:40 PM	75492
1,2-Dibromoethane	ND	0.0095		µg/L	1	6/13/2023 4:32:40 PM	75492
EPA 200.8: METALS						Analyst: **bcv**	
Arsenic	0.0045	0.00050		mg/L	1	6/9/2023 11:05:41 AM	75451
Lead	0.0013	0.00050		mg/L	1	6/9/2023 11:05:41 AM	75451
Uranium	0.0031	0.00050		mg/L	1	6/9/2023 11:05:41 AM	75451
EPA METHOD 9060A TOC						Analyst: **SMS**	
Total Organic Carbon	5.4	1.0		mg/L	1	6/9/2023 7:05:01 PM	R97417
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Fluoride	0.60	0.10		mg/L	1	6/20/2023 5:56:35 PM	R97600
Chloride	72	10		mg/L	20	6/8/2023 1:53:30 AM	R97288
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	6/8/2023 1:41:09 AM	R97288
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	6/8/2023 1:41:09 AM	R97288
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	6/8/2023 1:41:09 AM	R97288
Sulfate	51	10		mg/L	20	6/8/2023 1:53:30 AM	R97288
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **CAS**	
Conductivity	660	10		µmhos/c	1	6/8/2023 6:06:15 PM	R97312
SM2320B: ALKALINITY						Analyst: **CAS**	
Bicarbonate (As CaCO3)	151.2	20.00		mg/L Ca	1	6/8/2023 6:06:15 PM	R97312
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/8/2023 6:06:15 PM	R97312
Total Alkalinity (as CaCO3)	151.2	20.00		mg/L Ca	1	6/8/2023 6:06:15 PM	R97312
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **JAG**	
Total Dissolved Solids	388	100	D	mg/L	1	6/15/2023 3:40:00 PM	75579
SM 4500 NH3: AMMONIA						Analyst: **DML**	
Nitrogen, Ammonia	ND	1.0		mg/L	1	6/20/2023 1:22:00 PM	R97590
TOTAL NITROGEN						Analyst: **MRA**	
Nitrogen, Total	ND	1.0		mg/L	1	7/11/2023 2:36:00 PM	R98095
SM4500-H+B / 9040C: PH						Analyst: **CAS**	
pH	8.07		H	pH units	1	6/8/2023 6:06:15 PM	R97312
SM 4500 NORG C: TKN						Analyst: **DML**	
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	6/26/2023 2:02:00 PM	75821
EPA METHOD 200.7: METALS						Analyst: **JRR**	
Aluminum	1.1	0.10	*	mg/L	5	6/19/2023 11:06:25 AM	75451
Barium	0.053	0.0030		mg/L	1	6/12/2023 2:22:04 PM	75451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-3R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 1:17:00 PM
Lab ID: 2306367-002 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: METALS						Analyst: **JRR**	
Calcium	46	1.0		mg/L	1	6/12/2023 2:22:04 PM	75451
Chromium	ND	0.0060		mg/L	1	6/12/2023 2:22:04 PM	75451
Cobalt	ND	0.0060		mg/L	1	6/12/2023 2:22:04 PM	75451
Iron	0.51	0.25	*	mg/L	5	6/12/2023 2:32:26 PM	75451
Magnesium	6.1	1.0		mg/L	1	6/12/2023 2:22:04 PM	75451
Manganese	0.072	0.0020	*	mg/L	1	6/12/2023 2:22:04 PM	75451
Potassium	5.2	1.0		mg/L	1	6/12/2023 2:22:04 PM	75451
Sodium	81	5.0		mg/L	5	6/12/2023 2:32:26 PM	75451
Zinc	0.047	0.010		mg/L	1	6/12/2023 2:22:04 PM	75451
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Benzene	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Toluene	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Ethylbenzene	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Acetone	ND	10		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Bromoform	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Bromomethane	ND	2.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
2-Butanone	ND	10		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Carbon disulfide	ND	10		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Chlorobenzene	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Chloroethane	ND	2.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Chloroform	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Chloromethane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Dibromomethane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
2-Hexanone	ND	10		µg/L	1	6/13/2023 8:57:34 PM	LF97432
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2023 8:57:34 PM	LF97432

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

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D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-3R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 1:17:00 PM
Lab ID: 2306367-002 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
Methylene Chloride	ND	2.5		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Styrene	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Vinyl chloride	ND	1.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Xylenes, Total	ND	2.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Acrylonitrile	ND	10		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Bromochloromethane	ND	2.0		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Iodomethane	ND	10		µg/L	1	6/13/2023 8:57:34 PM	LF97432
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Vinyl acetate	ND	10		µg/L	1	6/13/2023 8:57:34 PM	LF97432
Surr: 1,2-Dichloroethane-d4	119	70-130		%Rec	1	6/13/2023 8:57:34 PM	LF97432
Surr: 4-Bromofluorobenzene	96.2	70-130		%Rec	1	6/13/2023 8:57:34 PM	LF97432
Surr: Dibromofluoromethane	114	70-130		%Rec	1	6/13/2023 8:57:34 PM	LF97432
Surr: Toluene-d8	104	70-130		%Rec	1	6/13/2023 8:57:34 PM	LF97432
TOTAL PHENOLICS BY SW-846 9067						Analyst: **JPM**	
Phenolics	ND	3.0		µg/L	1	6/26/2023 8:17:00 AM	75817

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-5R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 8:15:00 AM
Lab ID: 2306367-003 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP						Analyst: **mb**	
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	6/13/2023 4:47:21 PM	75492
1,2-Dibromoethane	ND	0.0093		µg/L	1	6/13/2023 4:47:21 PM	75492
EPA 200.8: METALS						Analyst: **bcv**	
Arsenic	0.0069	0.00050		mg/L	1	6/12/2023 12:25:49 PM	A97375
Lead	ND	0.00050		mg/L	1	6/12/2023 12:25:49 PM	A97375
Uranium	0.0019	0.00050		mg/L	1	6/12/2023 12:25:49 PM	A97375
EPA METHOD 9060A TOC						Analyst: **SMS**	
Total Organic Carbon	ND	1.0		mg/L	1	6/9/2023 7:21:19 PM	R97417
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Fluoride	0.58	0.10		mg/L	1	6/20/2023 6:09:26 PM	R97600
Chloride	170	10		mg/L	20	6/8/2023 2:42:52 AM	R97288
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	6/8/2023 2:30:31 AM	R97288
Nitrogen, Nitrate (As N)	0.63	0.10		mg/L	1	6/8/2023 2:30:31 AM	R97288
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	6/8/2023 2:30:31 AM	R97288
Sulfate	32	0.50		mg/L	1	6/8/2023 2:30:31 AM	R97288
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **CAS**	
Conductivity	850	10		µmhos/c	1	6/8/2023 6:15:34 PM	R97312
SM2320B: ALKALINITY						Analyst: **CAS**	
Bicarbonate (As CaCO3)	104.3	20.00		mg/L Ca	1	6/8/2023 6:15:34 PM	R97312
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/8/2023 6:15:34 PM	R97312
Total Alkalinity (as CaCO3)	104.3	20.00		mg/L Ca	1	6/8/2023 6:15:34 PM	R97312
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **JAG**	
Total Dissolved Solids	458	50.0		mg/L	1	6/14/2023 3:10:00 PM	75546
SM 4500 NH3: AMMONIA						Analyst: **DML**	
Nitrogen, Ammonia	ND	1.0		mg/L	1	6/20/2023 1:22:00 PM	R97590
TOTAL NITROGEN						Analyst: **MRA**	
Nitrogen, Total	ND	1.0		mg/L	1	7/11/2023 2:36:00 PM	R98095
SM4500-H+B / 9040C: PH						Analyst: **CAS**	
pH	8.05		H	pH units	1	6/8/2023 6:15:34 PM	R97312
SM 4500 NORG C: TKN						Analyst: **DML**	
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	6/26/2023 2:02:00 PM	75821
EPA METHOD 200.7: METALS						Analyst: **VP**	
Aluminum	0.028	0.020		mg/L	1	6/12/2023 10:54:47 AM	A97371
Barium	0.080	0.0030		mg/L	1	6/12/2023 10:54:47 AM	A97371

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-5R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 8:15:00 AM
Lab ID: 2306367-003 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: METALS						Analyst: **VP**	
Calcium	46	1.0		mg/L	1	6/14/2023 2:19:14 PM	A97451
Chromium	ND	0.0060		mg/L	1	6/12/2023 10:54:47 AM	A97371
Cobalt	ND	0.0060		mg/L	1	6/12/2023 10:54:47 AM	A97371
Iron	ND	0.050		mg/L	1	6/12/2023 10:54:47 AM	A97371
Magnesium	5.2	1.0		mg/L	1	6/14/2023 2:19:14 PM	A97451
Manganese	ND	0.0020		mg/L	1	6/12/2023 10:54:47 AM	A97371
Potassium	5.0	1.0		mg/L	1	6/14/2023 2:19:14 PM	A97451
Sodium	100	5.0		mg/L	5	6/14/2023 2:20:59 PM	A97451
Zinc	0.011	0.010		mg/L	1	6/19/2023 11:18:34 AM	A97552
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Benzene	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Toluene	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Ethylbenzene	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Acetone	ND	10		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Bromoform	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Bromomethane	ND	2.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
2-Butanone	ND	10		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Carbon disulfide	ND	10		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Chlorobenzene	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Chloroethane	ND	2.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Chloroform	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Chloromethane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Dibromomethane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
2-Hexanone	ND	10		µg/L	1	6/13/2023 9:24:49 PM	LF97432
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2023 9:24:49 PM	LF97432

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-5R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 8:15:00 AM
Lab ID: 2306367-003 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
Methylene Chloride	ND	2.5		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Styrene	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Vinyl chloride	ND	1.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Xylenes, Total	ND	2.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Acrylonitrile	ND	10		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Bromochloromethane	ND	2.0		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Iodomethane	ND	10		µg/L	1	6/13/2023 9:24:49 PM	LF97432
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Vinyl acetate	ND	10		µg/L	1	6/13/2023 9:24:49 PM	LF97432
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	6/13/2023 9:24:49 PM	LF97432
Surr: 4-Bromofluorobenzene	97.9	70-130		%Rec	1	6/13/2023 9:24:49 PM	LF97432
Surr: Dibromofluoromethane	112	70-130		%Rec	1	6/13/2023 9:24:49 PM	LF97432
Surr: Toluene-d8	106	70-130		%Rec	1	6/13/2023 9:24:49 PM	LF97432
TOTAL PHENOLICS BY SW-846 9067						Analyst: **JPM**	
Phenolics	ND	3.0		µg/L	1	6/26/2023 8:17:00 AM	75817

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-6R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 10:35:00 AM
Lab ID: 2306367-004 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP						Analyst: **mb**	
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	6/13/2023 5:02:07 PM	75492
1,2-Dibromoethane	ND	0.0094		µg/L	1	6/13/2023 5:02:07 PM	75492
EPA 200.8: METALS						Analyst: **bcv**	
Arsenic	0.0087	0.00050		mg/L	1	6/9/2023 11:13:37 AM	75451
Lead	ND	0.00050		mg/L	1	6/9/2023 11:13:37 AM	75451
Uranium	0.0019	0.00050		mg/L	1	6/9/2023 11:13:37 AM	75451
EPA METHOD 9060A TOC						Analyst: **SMS**	
Total Organic Carbon	9.1	1.0		mg/L	1	6/9/2023 7:36:09 PM	R97417
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Fluoride	0.51	0.10		mg/L	1	6/20/2023 6:22:18 PM	R97600
Chloride	110	10		mg/L	20	6/8/2023 3:07:32 AM	R97288
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	6/8/2023 2:55:12 AM	R97288
Nitrogen, Nitrate (As N)	1.4	0.10		mg/L	1	6/8/2023 2:55:12 AM	R97288
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	6/8/2023 2:55:12 AM	R97288
Sulfate	47	10		mg/L	20	6/8/2023 3:07:32 AM	R97288
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **CAS**	
Conductivity	710	10		µmhos/c	1	6/8/2023 6:23:42 PM	R97312
SM2320B: ALKALINITY						Analyst: **CAS**	
Bicarbonate (As CaCO3)	108.4	20.00		mg/L Ca	1	6/8/2023 6:23:42 PM	R97312
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/8/2023 6:23:42 PM	R97312
Total Alkalinity (as CaCO3)	108.4	20.00		mg/L Ca	1	6/8/2023 6:23:42 PM	R97312
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **JAG**	
Total Dissolved Solids	397	50.0		mg/L	1	6/14/2023 2:50:00 PM	75548
SM 4500 NH3: AMMONIA						Analyst: **DML**	
Nitrogen, Ammonia	ND	1.0		mg/L	1	6/20/2023 1:22:00 PM	R97590
TOTAL NITROGEN						Analyst: **MRA**	
Nitrogen, Total	1.4	1.0		mg/L	1	7/11/2023 2:36:00 PM	R98095
SM4500-H+B / 9040C: PH						Analyst: **CAS**	
pH	8.09		H	pH units	1	6/8/2023 6:23:42 PM	R97312
SM 4500 NORG C: TKN						Analyst: **DML**	
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	7/3/2023 11:38:00 AM	75952
EPA METHOD 200.7: METALS						Analyst: **VP**	
Aluminum	0.068	0.020		mg/L	1	6/12/2023 2:37:26 PM	75451
Barium	0.051	0.0030		mg/L	1	6/12/2023 2:37:26 PM	75451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-6R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 10:35:00 AM
Lab ID: 2306367-004
Matrix: AQUEOUS
Received Date: 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: METALS						Analyst: **VP**	
Calcium	47	1.0		mg/L	1	6/12/2023 2:37:26 PM	75451
Chromium	ND	0.0060		mg/L	1	6/12/2023 2:37:26 PM	75451
Cobalt	ND	0.0060		mg/L	1	6/12/2023 2:37:26 PM	75451
Iron	0.082	0.050		mg/L	1	6/12/2023 2:37:26 PM	75451
Magnesium	5.4	1.0		mg/L	1	6/12/2023 2:37:26 PM	75451
Manganese	0.0024	0.0020		mg/L	1	6/12/2023 2:37:26 PM	75451
Potassium	5.0	1.0		mg/L	1	6/12/2023 2:37:26 PM	75451
Sodium	87	1.0		mg/L	1	6/12/2023 2:37:26 PM	75451
Zinc	ND	0.010		mg/L	1	6/12/2023 2:37:26 PM	75451
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Benzene	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Toluene	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Ethylbenzene	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Acetone	ND	10		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Bromoform	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Bromomethane	ND	2.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
2-Butanone	ND	10		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Carbon disulfide	ND	10		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Chlorobenzene	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Chloroethane	ND	2.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Chloroform	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Chloromethane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Dibromomethane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
2-Hexanone	ND	10		µg/L	1	6/13/2023 9:52:02 PM	LF97432
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2023 9:52:02 PM	LF97432

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-6R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 10:35:00 AM
Lab ID: 2306367-004 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
Methylene Chloride	ND	2.5		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Styrene	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Vinyl chloride	ND	1.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Xylenes, Total	ND	2.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Acrylonitrile	ND	10		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Bromochloromethane	ND	2.0		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Iodomethane	ND	10		µg/L	1	6/13/2023 9:52:02 PM	LF97432
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Vinyl acetate	ND	10		µg/L	1	6/13/2023 9:52:02 PM	LF97432
Surr: 1,2-Dichloroethane-d4	121	70-130		%Rec	1	6/13/2023 9:52:02 PM	LF97432
Surr: 4-Bromofluorobenzene	97.9	70-130		%Rec	1	6/13/2023 9:52:02 PM	LF97432
Surr: Dibromofluoromethane	124	70-130		%Rec	1	6/13/2023 9:52:02 PM	LF97432
Surr: Toluene-d8	101	70-130		%Rec	1	6/13/2023 9:52:02 PM	LF97432
TOTAL PHENOLICS BY SW-846 9067						Analyst: **JPM**	
Phenolics	ND	3.0		µg/L	1	6/26/2023 8:17:00 AM	75817

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-7R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 9:25:00 AM
Lab ID: 2306367-005 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP						Analyst: **mb**	
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	6/13/2023 5:16:49 PM	75492
1,2-Dibromoethane	ND	0.0095		µg/L	1	6/13/2023 5:16:49 PM	75492
EPA 200.8: METALS						Analyst: **bcv**	
Arsenic	0.0070	0.00050		mg/L	1	6/9/2023 11:16:15 AM	75451
Lead	ND	0.00050		mg/L	1	6/9/2023 11:16:15 AM	75451
Uranium	0.0018	0.00050		mg/L	1	6/9/2023 11:16:15 AM	75451
EPA METHOD 9060A TOC						Analyst: **SMS**	
Total Organic Carbon	ND	1.0		mg/L	1	6/9/2023 7:52:17 PM	R97417
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Fluoride	0.79	0.10		mg/L	1	6/20/2023 6:35:09 PM	R97600
Chloride	52	10		mg/L	20	6/8/2023 3:32:14 AM	R97288
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	6/8/2023 3:19:53 AM	R97288
Nitrogen, Nitrate (As N)	6.3	0.10		mg/L	1	6/8/2023 3:19:53 AM	R97288
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	6/8/2023 3:19:53 AM	R97288
Sulfate	46	10		mg/L	20	6/8/2023 3:32:14 AM	R97288
SM2510B: SPECIFIC CONDUCTANCE						Analyst: **CAS**	
Conductivity	570	10		µmhos/c	1	6/8/2023 6:35:49 PM	R97312
SM2320B: ALKALINITY						Analyst: **CAS**	
Bicarbonate (As CaCO3)	108.8	20.00		mg/L Ca	1	6/8/2023 6:35:49 PM	R97312
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/8/2023 6:35:49 PM	R97312
Total Alkalinity (as CaCO3)	108.8	20.00		mg/L Ca	1	6/8/2023 6:35:49 PM	R97312
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **JAG**	
Total Dissolved Solids	321	50.0		mg/L	1	6/14/2023 2:50:00 PM	75548
SM 4500 NH3: AMMONIA						Analyst: **DML**	
Nitrogen, Ammonia	ND	1.0		mg/L	1	6/20/2023 1:22:00 PM	R97590
TOTAL NITROGEN						Analyst: **MRA**	
Nitrogen, Total	6.3	1.0		mg/L	1	7/11/2023 2:36:00 PM	R98095
SM4500-H+B / 9040C: PH						Analyst: **CAS**	
pH	7.88		H	pH units	1	6/8/2023 6:35:49 PM	A97312
SM 4500 NORG C: TKN						Analyst: **DML**	
Nitrogen, Kjeldahl, Total	ND	1.0		mg/L	1	7/3/2023 11:38:00 AM	75952
EPA METHOD 200.7: METALS						Analyst: **VP**	
Aluminum	0.13	0.020		mg/L	1	6/12/2023 2:40:43 PM	75451
Barium	0.053	0.0030		mg/L	1	6/12/2023 2:40:43 PM	75451

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-7R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 9:25:00 AM
Lab ID: 2306367-005 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: METALS						Analyst: **VP**	
Calcium	38	1.0		mg/L	1	6/12/2023 2:40:43 PM	75451
Chromium	ND	0.0060		mg/L	1	6/12/2023 2:40:43 PM	75451
Cobalt	ND	0.0060		mg/L	1	6/12/2023 2:40:43 PM	75451
Iron	0.14	0.050		mg/L	1	6/12/2023 2:40:43 PM	75451
Magnesium	4.6	1.0		mg/L	1	6/12/2023 2:40:43 PM	75451
Manganese	0.0040	0.0020		mg/L	1	6/12/2023 2:40:43 PM	75451
Potassium	4.3	1.0		mg/L	1	6/12/2023 2:40:43 PM	75451
Sodium	69	1.0		mg/L	1	6/12/2023 2:40:43 PM	75451
Zinc	ND	0.010		mg/L	1	6/12/2023 2:40:43 PM	75451
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Benzene	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Toluene	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Ethylbenzene	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Acetone	ND	10		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Bromoform	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Bromomethane	ND	2.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
2-Butanone	ND	10		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Carbon disulfide	ND	10		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Chlorobenzene	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Chloroethane	ND	2.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Chloroform	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Chloromethane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Dibromomethane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
2-Hexanone	ND	10		µg/L	1	6/13/2023 10:19:13 PM	LF97432
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2023 10:19:13 PM	LF97432

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: MW-7R
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 9:25:00 AM
Lab ID: 2306367-005 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
Methylene Chloride	ND	2.5		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Styrene	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Vinyl chloride	ND	1.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Xylenes, Total	ND	2.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Acrylonitrile	ND	10		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Bromochloromethane	ND	2.0		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Iodomethane	ND	10		µg/L	1	6/13/2023 10:19:13 PM	LF97432
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Vinyl acetate	ND	10		µg/L	1	6/13/2023 10:19:13 PM	LF97432
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	6/13/2023 10:19:13 PM	LF97432
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	1	6/13/2023 10:19:13 PM	LF97432
Surr: Dibromofluoromethane	120	70-130		%Rec	1	6/13/2023 10:19:13 PM	LF97432
Surr: Toluene-d8	99.6	70-130		%Rec	1	6/13/2023 10:19:13 PM	LF97432
TOTAL PHENOLICS BY SW-846 9067						Analyst: **JPM**	
Phenolics	ND	3.0		µg/L	1	6/26/2023 8:17:00 AM	75817

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: Dupe
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 8:19:00 AM
Lab ID: 2306367-006 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Benzene	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Toluene	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Ethylbenzene	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Acetone	ND	10		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Bromoform	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Bromomethane	ND	2.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
2-Butanone	ND	10		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Carbon disulfide	ND	10		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Chlorobenzene	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Chloroethane	ND	2.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Chloroform	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Chloromethane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Dibromomethane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
2-Hexanone	ND	10		µg/L	1	6/13/2023 10:46:24 PM	LF97432
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Methylene Chloride	ND	2.5		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Styrene	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: Dupe
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 8:19:00 AM
Lab ID: 2306367-006 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Vinyl chloride	ND	1.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Xylenes, Total	ND	2.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Acrylonitrile	ND	10		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Bromochloromethane	ND	2.0		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Iodomethane	ND	10		µg/L	1	6/13/2023 10:46:24 PM	LF97432
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Vinyl acetate	ND	10		µg/L	1	6/13/2023 10:46:24 PM	LF97432
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	1	6/13/2023 10:46:24 PM	LF97432
Surr: 4-Bromofluorobenzene	99.1	70-130		%Rec	1	6/13/2023 10:46:24 PM	LF97432
Surr: Dibromofluoromethane	115	70-130		%Rec	1	6/13/2023 10:46:24 PM	LF97432
Surr: Toluene-d8	100	70-130		%Rec	1	6/13/2023 10:46:24 PM	LF97432

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: Field Blank
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 8:25:00 AM
Lab ID: 2306367-007 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Benzene	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Toluene	1.9	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Ethylbenzene	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Acetone	ND	10		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Bromoform	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Bromomethane	ND	2.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
2-Butanone	ND	10		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Carbon disulfide	ND	10		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Chlorobenzene	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Chloroethane	ND	2.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Chloroform	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Chloromethane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Dibromomethane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
2-Hexanone	ND	10		µg/L	1	6/13/2023 11:13:37 PM	LF97432
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Methylene Chloride	ND	2.5		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Styrene	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: Field Blank
Project: Sandoval County Landfill SCLF
Collection Date: 6/7/2023 8:25:00 AM
Lab ID: 2306367-007 **Matrix:** AQUEOUS **Received Date:** 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Vinyl chloride	ND	1.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Xylenes, Total	ND	2.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Acrylonitrile	ND	10		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Bromochloromethane	ND	2.0		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Iodomethane	ND	10		µg/L	1	6/13/2023 11:13:37 PM	LF97432
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Vinyl acetate	ND	10		µg/L	1	6/13/2023 11:13:37 PM	LF97432
Surr: 1,2-Dichloroethane-d4	124	70-130		%Rec	1	6/13/2023 11:13:37 PM	LF97432
Surr: 4-Bromofluorobenzene	97.3	70-130		%Rec	1	6/13/2023 11:13:37 PM	LF97432
Surr: Dibromofluoromethane	122	70-130		%Rec	1	6/13/2023 11:13:37 PM	LF97432
Surr: Toluene-d8	100	70-130		%Rec	1	6/13/2023 11:13:37 PM	LF97432

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: Trip Blank
Project: Sandoval County Landfill SCLF
Collection Date:
Lab ID: 2306367-008
Matrix: TRIP BLANK
Received Date: 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP						Analyst: **mb**	
1,2-Dibromo-3-chloropropane	ND	0.018		µg/L	1	6/13/2023 6:16:03 PM	75492
1,2-Dibromoethane	ND	0.0092		µg/L	1	6/13/2023 6:16:03 PM	75492
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Benzene	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Toluene	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Ethylbenzene	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Acetone	ND	10		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Bromodichloromethane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Bromoform	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Bromomethane	ND	2.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
2-Butanone	ND	10		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Carbon disulfide	ND	10		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Carbon Tetrachloride	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Chlorobenzene	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Chloroethane	ND	2.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Chloroform	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Chloromethane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
cis-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Dibromochloromethane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Dibromomethane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
1,1-Dichloroethane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
1,1-Dichloroethene	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
1,2-Dichloropropane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
2-Hexanone	ND	10		µg/L	1	6/13/2023 11:40:57 PM	LF97432
4-Methyl-2-pentanone	ND	10		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Methylene Chloride	ND	2.5		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Styrene	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
trans-1,2-DCE	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Parkhill
Client Sample ID: Trip Blank
Project: Sandoval County Landfill SCLF
Collection Date:
Lab ID: 2306367-008
Matrix: TRIP BLANK
Received Date: 6/7/2023 3:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I						Analyst: **RAA**	
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Trichlorofluoromethane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Vinyl chloride	ND	1.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Xylenes, Total	ND	2.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Acrylonitrile	ND	10		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Bromochloromethane	ND	2.0		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Iodomethane	ND	10		µg/L	1	6/13/2023 11:40:57 PM	LF97432
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Vinyl acetate	ND	10		µg/L	1	6/13/2023 11:40:57 PM	LF97432
Surr: 1,2-Dichloroethane-d4	114	70-130		%Rec	1	6/13/2023 11:40:57 PM	LF97432
Surr: 4-Bromofluorobenzene	91.6	70-130		%Rec	1	6/13/2023 11:40:57 PM	LF97432
Surr: Dibromofluoromethane	118	70-130		%Rec	1	6/13/2023 11:40:57 PM	LF97432
Surr: Toluene-d8	103	70-130		%Rec	1	6/13/2023 11:40:57 PM	LF97432

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **MB-75451**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **75451**	RunNo: **97311**
Prep Date: **6/8/2023**	Analysis Date: **6/9/2023**	SeqNo: **3534971** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0030								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID: **LCSLL-75451**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **75451**	RunNo: **97311**
Prep Date: **6/8/2023**	Analysis Date: **6/9/2023**	SeqNo: **3534972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020	0.01000	0	146	50	150			
Barium	ND	0.0030	0.002000	0	81.1	50	150			
Calcium	ND	1.0	0.5000	0	103	50	150			
Chromium	ND	0.0060	0.006000	0	72.4	50	150			
Cobalt	ND	0.0060	0.006000	0	68.6	50	150			
Iron	ND	0.050	0.02000	0	132	50	150			
Magnesium	ND	1.0	0.5000	0	104	50	150			
Manganese	ND	0.0020	0.002000	0	95.2	50	150			
Potassium	ND	1.0	0.5000	0	104	50	150			
Sodium	ND	1.0	0.5000	0	98.8	50	150			
Zinc	0.014	0.010	0.01000	0	141	50	150			

Sample ID: **LCS-75451**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **75451**	RunNo: **97311**
Prep Date: **6/8/2023**	Analysis Date: **6/9/2023**	SeqNo: **3534973** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.56	0.020	0.5000	0	112	85	115			
Barium	0.49	0.0030	0.5000	0	98.5	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.48	0.0060	0.5000	0	95.8	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.6	85	115			
Iron	0.51	0.050	0.5000	0	101	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **LCS-75451**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **75451**	RunNo: **97311**
Prep Date: **6/8/2023**	Analysis Date: **6/9/2023**	SeqNo: **3534973** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	50	1.0	50.00	0	99.8	85	115			
Manganese	0.48	0.0020	0.5000	0	96.5	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Sodium	50	1.0	50.00	0	99.1	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Sample ID: **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **A97371**	RunNo: **97371**
Prep Date:	Analysis Date: **6/12/2023**	SeqNo: **3537442** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0030								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.050								
Manganese	ND	0.0020								

Sample ID: **LCSLL-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **A97371**	RunNo: **97371**
Prep Date:	Analysis Date: **6/12/2023**	SeqNo: **3537443** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020	0.01000	0	96.8	50	150			
Chromium	ND	0.0060	0.006000	0	67.7	50	150			
Iron	ND	0.050	0.02000	0	127	50	150			
Manganese	ND	0.0020	0.002000	0	97.5	50	150			

Sample ID: **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **A97371**	RunNo: **97371**
Prep Date:	Analysis Date: **6/12/2023**	SeqNo: **3537444** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.50	0.020	0.5000	0	101	85	115			
Barium	0.51	0.0030	0.5000	0	102	85	115			
Chromium	0.51	0.0060	0.5000	0	103	85	115			
Cobalt	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.52	0.050	0.5000	0	105	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **LCSLL-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **A97371**	RunNo: **97371**
Prep Date:	Analysis Date: **6/12/2023**	SeqNo: **3537448** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0030	0.002000	0	135	50	150			
Cobalt	0.0082	0.0060	0.006000	0	136	50	150			

Sample ID: **2306367-001FMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-2R**	Batch ID: **75451**	RunNo: **97371**
Prep Date: **6/8/2023**	Analysis Date: **6/12/2023**	SeqNo: **3537723** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.58	0.0030	0.5000	0.05912	103	70	130			
Calcium	93	1.0	50.00	42.40	101	70	130			
Chromium	0.51	0.0060	0.5000	0.004913	101	70	130			
Cobalt	0.50	0.0060	0.5000	0	99.9	70	130			
Magnesium	57	1.0	50.00	5.663	103	70	130			
Manganese	0.54	0.0020	0.5000	0.05490	97.9	70	130			
Potassium	56	1.0	50.00	5.248	101	70	130			
Zinc	0.54	0.010	0.5000	0.03485	101	70	130			

Sample ID: **2306367-001FMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-2R**	Batch ID: **75451**	RunNo: **97371**
Prep Date: **6/8/2023**	Analysis Date: **6/12/2023**	SeqNo: **3537724** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.56	0.0030	0.5000	0.05912	99.5	70	130	3.44	20	
Calcium	92	1.0	50.00	42.40	99.7	70	130	0.527	20	
Chromium	0.49	0.0060	0.5000	0.004913	97.1	70	130	3.76	20	
Cobalt	0.48	0.0060	0.5000	0	96.4	70	130	3.59	20	
Magnesium	58	1.0	50.00	5.663	104	70	130	1.01	20	
Manganese	0.53	0.0020	0.5000	0.05490	95.9	70	130	1.79	20	
Potassium	57	1.0	50.00	5.248	103	70	130	1.66	20	
Zinc	0.52	0.010	0.5000	0.03485	96.4	70	130	4.23	20	

Sample ID: **2306367-001FMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-2R**	Batch ID: **75451**	RunNo: **97371**
Prep Date: **6/8/2023**	Analysis Date: **6/12/2023**	SeqNo: **3537726** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	130	5.0	50.00	85.33	95.7	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **2306367-001FMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **MW-2R** Batch ID: **75451** RunNo: **97371**

Prep Date: **6/8/2023** Analysis Date: **6/12/2023** SeqNo: **3537727** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	130	5.0	50.00	85.33	94.0	70	130	0	20	

Sample ID: **2306367-002FMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**

Client ID: **MW-3R** Batch ID: **75451** RunNo: **97371**

Prep Date: **6/8/2023** Analysis Date: **6/12/2023** SeqNo: **3537732** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0030	0.5000	0.05266	99.4	70	130			
Calcium	97	1.0	50.00	46.45	100	70	130			
Chromium	0.48	0.0060	0.5000	0	97.0	70	130			
Cobalt	0.48	0.0060	0.5000	0	96.3	70	130			
Magnesium	58	1.0	50.00	6.102	104	70	130			
Manganese	0.54	0.0020	0.5000	0.07166	94.0	70	130			
Potassium	56	1.0	50.00	5.186	102	70	130			
Zinc	0.54	0.010	0.5000	0.04656	98.1	70	130			

Sample ID: **2306367-002FMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **MW-3R** Batch ID: **75451** RunNo: **97371**

Prep Date: **6/8/2023** Analysis Date: **6/12/2023** SeqNo: **3537733** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0030	0.5000	0.05266	104	70	130	3.76	20	
Calcium	98	1.0	50.00	46.45	103	70	130	1.27	20	
Chromium	0.50	0.0060	0.5000	0	101	70	130	3.70	20	
Cobalt	0.51	0.0060	0.5000	0	101	70	130	4.88	20	
Magnesium	59	1.0	50.00	6.102	105	70	130	0.522	20	
Manganese	0.57	0.0020	0.5000	0.07166	100	70	130	5.51	20	
Potassium	57	1.0	50.00	5.186	103	70	130	0.470	20	
Zinc	0.55	0.010	0.5000	0.04656	101	70	130	2.57	20	

Sample ID: **2306367-002FMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**

Client ID: **MW-3R** Batch ID: **75451** RunNo: **97371**

Prep Date: **6/8/2023** Analysis Date: **6/12/2023** SeqNo: **3537735** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.1	0.25	0.5000	0.5125	116	70	130			
Sodium	130	5.0	50.00	81.12	93.0	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **2306367-002FMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-3R**	Batch ID: **75451**	RunNo: **97371**
Prep Date: **6/8/2023**	Analysis Date: **6/12/2023**	SeqNo: **3537736** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.1	0.25	0.5000	0.5125	120	70	130	1.53	20	
Sodium	130	5.0	50.00	81.12	95.4	70	130	0.958	20	

Sample ID: **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **A97451**	RunNo: **97451**
Prep Date:	Analysis Date: **6/14/2023**	SeqNo: **3540777** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID: **LCSLL-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **A97451**	RunNo: **97451**
Prep Date:	Analysis Date: **6/14/2023**	SeqNo: **3540778** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	0.5000	0	106	50	150			
Magnesium	ND	1.0	0.5000	0	111	50	150			
Potassium	ND	1.0	0.5000	0	99.9	50	150			
Sodium	ND	1.0	0.5000	0	110	50	150			

Sample ID: **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **A97451**	RunNo: **97451**
Prep Date:	Analysis Date: **6/14/2023**	SeqNo: **3540779** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	53	1.0	50.00	0	107	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Potassium	52	1.0	50.00	0	105	85	115			
Sodium	52	1.0	50.00	0	104	85	115			

Sample ID: **MB-A**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **A97552**	RunNo: **97552**
Prep Date:	Analysis Date: **6/19/2023**	SeqNo: **3545667** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **LCSLL-A**	SampType: **LCSLL**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **A97552**	RunNo: **97552**
Prep Date:	Analysis Date: **6/19/2023**	SeqNo: **3545668** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010	0.01000	0	75.2	50	150			

Sample ID: **LCS-A**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **A97552**	RunNo: **97552**
Prep Date:	Analysis Date: **6/19/2023**	SeqNo: **3545669** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.55	0.010	0.5000	0	110	85	115			

Sample ID: **2306367-001FMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-2R**	Batch ID: **75451**	RunNo: **97552**
Prep Date: **6/8/2023**	Analysis Date: **6/19/2023**	SeqNo: **3545692** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	2.1	0.10	0.5000	1.087	204	70	130			S
Iron	1.4	0.25	0.5000	0.9107	104	70	130			

Sample ID: **2306367-001FMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-2R**	Batch ID: **75451**	RunNo: **97552**
Prep Date: **6/8/2023**	Analysis Date: **6/19/2023**	SeqNo: **3545693** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	2.0	0.10	0.5000	1.087	184	70	130	4.86	20	S
Iron	1.4	0.25	0.5000	0.9107	106	70	130	0.639	20	

Sample ID: **2306367-002FMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-3R**	Batch ID: **75451**	RunNo: **97552**
Prep Date: **6/8/2023**	Analysis Date: **6/19/2023**	SeqNo: **3545696** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	1.5	0.10	0.5000	1.113	69.9	70	130			S

Sample ID: **2306367-002FMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-3R**	Batch ID: **75451**	RunNo: **97552**
Prep Date: **6/8/2023**	Analysis Date: **6/19/2023**	SeqNo: **3545697** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	1.7	0.10	0.5000	1.113	122	70	130	16.5	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **2306367-003FMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-5R**	Batch ID: **A97552**	RunNo: **97552**
Prep Date:	Analysis Date: **6/19/2023**	SeqNo: **3545703** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.62	0.010	0.5000	0.01127	122	70	130			

Sample ID: **2306367-003FMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **MW-5R**	Batch ID: **A97552**	RunNo: **97552**
Prep Date:	Analysis Date: **6/19/2023**	SeqNo: **3545704** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.56	0.010	0.5000	0.01127	110	70	130	9.91	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **MB-75451**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **75451**	RunNo: **97325**
Prep Date: **6/8/2023**	Analysis Date: **6/9/2023**	SeqNo: **3535593** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.00050								
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID: **MSLCSLL-75451**	SampType: **LCSLL**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **75451**	RunNo: **97325**
Prep Date: **6/8/2023**	Analysis Date: **6/9/2023**	SeqNo: **3535594** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00050	0.00050	0.0005000	0	101	50	150			
Uranium	ND	0.00050	0.0005000	0	98.7	50	150			

Sample ID: **MSLCS-75451**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **75451**	RunNo: **97325**
Prep Date: **6/8/2023**	Analysis Date: **6/9/2023**	SeqNo: **3535595** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.00050	0.02500	0	97.2	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID: **MSLCSLL-TL-75451**	SampType: **LCSLL**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **75451**	RunNo: **97325**
Prep Date: **6/8/2023**	Analysis Date: **6/9/2023**	SeqNo: **3535596** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.00050	0.0005000	0	87.4	50	150			

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **A97375**	RunNo: **97375**
Prep Date:	Analysis Date: **6/12/2023**	SeqNo: **3537558** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.00050								
Lead	ND	0.00050								
Uranium	ND	0.00050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **LCSLL**	SampType: **LCSLL**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **A97375**	RunNo: **97375**
Prep Date:	Analysis Date: **6/12/2023**	SeqNo: **3537559** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.00052	0.00050	0.0005000	0	103	50	150			
Uranium	0.00053	0.00050	0.0005000	0	105	50	150			

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **A97375**	RunNo: **97375**
Prep Date:	Analysis Date: **6/12/2023**	SeqNo: **3537560** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.00050	0.02500	0	100	85	115			
Lead	0.012	0.00050	0.01250	0	99.8	85	115			
Uranium	0.012	0.00050	0.01250	0	99.7	85	115			

Sample ID: **LCSLLB**	SampType: **LCSLL**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **A97375**	RunNo: **97375**
Prep Date:	Analysis Date: **6/12/2023**	SeqNo: **3537561** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.00057	0.00050	0.0005000	0	114	50	150			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R97288**	RunNo: **97288**
Prep Date:	Analysis Date: **6/7/2023**	SeqNo: **3533953** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID: **LCS**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R97288**	RunNo: **97288**
Prep Date:	Analysis Date: **6/7/2023**	SeqNo: **3533954** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.7	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	96.7	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.8	90	110			
Phosphorus, Orthophosphate (As P)	4.8	0.50	5.000	0	96.2	90	110			
Sulfate	9.6	0.50	10.00	0	95.9	90	110			

Sample ID: **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R97600**	RunNo: **97600**
Prep Date:	Analysis Date: **6/20/2023**	SeqNo: **3548532** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R97600**	RunNo: **97600**
Prep Date:	Analysis Date: **6/20/2023**	SeqNo: **3548533** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	98.7	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **MB-75492**	SampType: **MBLK**	TestCode: **EPA Method 504.1: EDB/DBCP**
Client ID: **PBW**	Batch ID: **75492**	RunNo: **97430**
Prep Date: **6/13/2023**	Analysis Date: **6/13/2023**	SeqNo: **3540392** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID: **LCS-75492**	SampType: **LCS**	TestCode: **EPA Method 504.1: EDB/DBCP**
Client ID: **LCSW**	Batch ID: **75492**	RunNo: **97430**
Prep Date: **6/13/2023**	Analysis Date: **6/13/2023**	SeqNo: **3540393** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.060	0.020	0.07500	0	79.5	70	130			
1,2-Dibromoethane	0.070	0.010	0.07500	0	92.9	70	130			

Sample ID: **MB-75492**	SampType: **MBLK**	TestCode: **EPA Method 504.1: EDB/DBCP**
Client ID: **PBW**	Batch ID: **75492**	RunNo: **97430**
Prep Date: **6/13/2023**	Analysis Date: **6/13/2023**	SeqNo: **3540677** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID: **LCS-75492**	SampType: **LCS**	TestCode: **EPA Method 504.1: EDB/DBCP**
Client ID: **LCSW**	Batch ID: **75492**	RunNo: **97430**
Prep Date: **6/13/2023**	Analysis Date: **6/13/2023**	SeqNo: **3540689** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.066	0.020	0.07500	0	88.2	70	130			
1,2-Dibromoethane	0.067	0.010	0.07500	0	89.2	70	130			

Sample ID: **2306367-005BMS**	SampType: **MS**	TestCode: **EPA Method 504.1: EDB/DBCP**
Client ID: **MW-7R**	Batch ID: **75492**	RunNo: **97430**
Prep Date: **6/13/2023**	Analysis Date: **6/13/2023**	SeqNo: **3540690** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.052	0.019	0.07056	0	74.0	65	135			
1,2-Dibromoethane	0.060	0.0094	0.07056	0	84.9	65	135			

Sample ID: **2306367-005BMSD**	SampType: **MSD**	TestCode: **EPA Method 504.1: EDB/DBCP**
Client ID: **MW-7R**	Batch ID: **75492**	RunNo: **97430**
Prep Date: **6/13/2023**	Analysis Date: **6/13/2023**	SeqNo: **3540691** Units: **µg/L**

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **2306367-005BMSD**	SampType: **MSD**	TestCode: **EPA Method 504.1: EDB/DBCP**
Client ID: **MW-7R**	Batch ID: **75492**	RunNo: **97430**
Prep Date: **6/13/2023**	Analysis Date: **6/13/2023**	SeqNo: **3540691** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.057	0.019	0.07133	0	80.3	65	135	9.29	20	
1,2-Dibromoethane	0.061	0.0095	0.07133	0	85.8	65	135	2.21	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **LCSW**	Batch ID: **LF97432**	RunNo: **97432**
Prep Date:	Analysis Date: **6/13/2023**	SeqNo: **3539923** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	21	1.0	20.00	0	105	70	130			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	110	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		113	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.2	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **PBW**	Batch ID: **LF97432**	RunNo: **97432**
Prep Date:	Analysis Date: **6/13/2023**	SeqNo: **3539939** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **mb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **PBW**	Batch ID: **LF97432**	RunNo: **97432**
Prep Date:	Analysis Date: **6/13/2023**	SeqNo: **3539939** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	11		10.00		110	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **MB1**	SampType: **MBLK**	TestCode: **EPA Method 9060A TOC**							
Client ID: **PBW**	Batch ID: **R97417**	RunNo: **97417**							
Prep Date:	Analysis Date: **6/9/2023**	SeqNo: **3538890**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID: **LCS1**	SampType: **LCS**	TestCode: **EPA Method 9060A TOC**							
Client ID: **LCSW**	Batch ID: **R97417**	RunNo: **97417**							
Prep Date:	Analysis Date: **6/9/2023**	SeqNo: **3538891**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.1	1.0	4.850	0	106	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **MB-75817**	SampType: **MBLK**	TestCode: **Total Phenolics by SW-846 9067**
Client ID: **PBW**	Batch ID: **75817**	RunNo: **97694**
Prep Date: **6/26/2023**	Analysis Date: **6/26/2023**	SeqNo: **3553014** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	3.0								

Sample ID: **LCS-75817**	SampType: **LCS**	TestCode: **Total Phenolics by SW-846 9067**
Client ID: **LCSW**	Batch ID: **75817**	RunNo: **97694**
Prep Date: **6/26/2023**	Analysis Date: **6/26/2023**	SeqNo: **3553015** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	14	3.0	20.00	0	69.7	38.6	115			

Sample ID: **2306367-005DMS**	SampType: **MS**	TestCode: **Total Phenolics by SW-846 9067**
Client ID: **MW-7R**	Batch ID: **75817**	RunNo: **97694**
Prep Date: **6/26/2023**	Analysis Date: **6/26/2023**	SeqNo: **3553022** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	23	3.0	20.00	0	116	53.3	166			

Sample ID: **2306367-005DMSD**	SampType: **MSD**	TestCode: **Total Phenolics by SW-846 9067**
Client ID: **MW-7R**	Batch ID: **75817**	RunNo: **97694**
Prep Date: **6/26/2023**	Analysis Date: **6/26/2023**	SeqNo: **3553023** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	24	3.0	20.00	0	122	53.3	166	4.98	20.9	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**
09-Aug-23

Client: Parkhill
Project: Sandoval County Landfill SCLF

Sample ID: **lcs-1 99.3uS eC**	SampType: **lcs**	TestCode: **SM2510B: Specific Conductance**
Client ID: **LCSW**	Batch ID: **R97312**	RunNo: **97312**
Prep Date:	Analysis Date: **6/8/2023**	SeqNo: **3535192** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	99.30	0	104	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **MB**	SampType: **MBLK**	TestCode: **SM 4500 NH3: Ammonia**
Client ID: **PBW**	Batch ID: **R97590**	RunNo: **97590**
Prep Date:	Analysis Date: **6/20/2023**	SeqNo: **3547761** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID: **LCS**	SampType: **LCS**	TestCode: **SM 4500 NH3: Ammonia**
Client ID: **LCSW**	Batch ID: **R97590**	RunNo: **97590**
Prep Date:	Analysis Date: **6/20/2023**	SeqNo: **3547762** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**
09-Aug-23

Client: Parkhill
Project: Sandoval County Landfill SCLF

Sample ID: **mb-1 alk**	SampType: **mblk**	TestCode: **SM2320B: Alkalinity**
Client ID: **PBW**	Batch ID: **R97312**	RunNo: **97312**
Prep Date:	Analysis Date: **6/8/2023**	SeqNo: **3535135** Units: **mg/L CaCO3**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: **lcs-1 alk**	SampType: **lcs**	TestCode: **SM2320B: Alkalinity**
Client ID: **LCSW**	Batch ID: **R97312**	RunNo: **97312**
Prep Date:	Analysis Date: **6/8/2023**	SeqNo: **3535136** Units: **mg/L CaCO3**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79.84	20.00	80.00	0	99.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **MB-75548**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **75548**	RunNo: **97439**
Prep Date: **6/13/2023**	Analysis Date: **6/14/2023**	SeqNo: **3540214** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: **LCS-75548**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **75548**	RunNo: **97439**
Prep Date: **6/13/2023**	Analysis Date: **6/14/2023**	SeqNo: **3540215** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	996	50.0	1000	0	99.6	80	120			

Sample ID: **2306367-005EDUP**	SampType: **DUP**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **MW-7R**	Batch ID: **75548**	RunNo: **97439**
Prep Date: **6/13/2023**	Analysis Date: **6/14/2023**	SeqNo: **3540219** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	319	50.0						0.625	10	

Sample ID: **MB-75546**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **75546**	RunNo: **97442**
Prep Date: **6/13/2023**	Analysis Date: **6/14/2023**	SeqNo: **3540296** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: **LCS-75546**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **75546**	RunNo: **97442**
Prep Date: **6/13/2023**	Analysis Date: **6/14/2023**	SeqNo: **3540297** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1000	50.0	1000	0	100	80	120			

Sample ID: **MB-75579**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **75579**	RunNo: **97484**
Prep Date: **6/14/2023**	Analysis Date: **6/15/2023**	SeqNo: **3541901** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**
09-Aug-23

Client: Parkhill
Project: Sandoval County Landfill SCLF

Sample ID: **LCS-75579**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **75579**	RunNo: **97484**
Prep Date: **6/14/2023**	Analysis Date: **6/15/2023**	SeqNo: **3541902** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	50.0	1000	0	101	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2306367**

09-Aug-23

Client: Parkhill

Project: Sandoval County Landfill SCLF

Sample ID: **MB-75821**	SampType: **MBLK**	TestCode: **SM 4500 Norg C: TKN**							
Client ID: **PBW**	Batch ID: **75821**	RunNo: **97727**							
Prep Date: **6/26/2023**	Analysis Date: **6/26/2023**	SeqNo: **3554193**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	1.0								

Sample ID: **LCS-75821**	SampType: **LCS**	TestCode: **SM 4500 Norg C: TKN**							
Client ID: **LCSW**	Batch ID: **75821**	RunNo: **97727**							
Prep Date: **6/26/2023**	Analysis Date: **6/26/2023**	SeqNo: **3554194**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	10	1.0	10.00	0	104	80	120			

Sample ID: **MB-75952**	SampType: **MBLK**	TestCode: **SM 4500 Norg C: TKN**							
Client ID: **PBW**	Batch ID: **75952**	RunNo: **97900**							
Prep Date: **7/1/2023**	Analysis Date: **7/3/2023**	SeqNo: **3561783**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	ND	1.0								

Sample ID: **LCS-75952**	SampType: **LCS**	TestCode: **SM 4500 Norg C: TKN**							
Client ID: **LCSW**	Batch ID: **75952**	RunNo: **97900**							
Prep Date: **7/1/2023**	Analysis Date: **7/3/2023**	SeqNo: **3561784**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Kjeldahl, Total	10	1.0	10.00	0	104	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Parkhill | Work Order Number: 2306367 | RcptNo: 1

Received By: Juan Rojas 6/7/2023 3:05:00 PM

Completed By: Desiree Dominguez 6/7/2023 3:17:08 PM

Reviewed By: 6-7-23

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
   Samples not frozen
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☑ No ☐ NA ☐
10. Were any sample containers received broken? Yes ☐ No ☑

    # of preserved bottles checked for pH: 16
    (<2 or >12 unless noted)
    Adjusted? NO
    Checked by: SCM 06/07/23

11. Does paperwork match bottle labels? Yes ☑ No ☐
    (Note discrepancies on chain of custody)
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? Yes ☑ No ☐
    (If no, notify customer for authorization.)

lot #538534 jn 6/7/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.2	Good	Not Present	Yogi		
2	2.4	Good	Not Present	Yogi		

Chain-of-Custody Record

Client: Parkhill

Mailing Address: 333 Rio Rancho Blvd. Suite 400 Rio Rancho NM 87124

Phone #: 505-867-6990

email or Fax#: ayuhas@parkhill.com

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☑ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name: Sandoval County Landfill (SCLF)

Project #: 4011122.00

Project Manager: Mike Crepeau

Sampler: AY/TZ

On Ice: ☐ Yes ☐ No

# of Coolers: 2 (Dry)

Cooler Temp (including CF): 4.3-0.1=4.2 (°C)

HEAL No. 2306367

Date	Time	Matrix	Sample Name	MCL	Container Type and #	Preservative Type	HEAL No.
6/7	1156	AQ	MW-2R	6	2 1	2 1	-001
6/7	1317	AQ	MW-3R	6	2 1	2 1	-002
6/7	0815	AQ	MW-5R	6	2 1	2 1	-003
6/7	1035	AQ	MW-6R	6	2 1	2 1	-004
6/7	0925	AQ	MW-7R	6	3 1	3 1	-005
6/7	0819	AQ	Dup.	3	— —	— —	-006
6/7	0825	AQ	Field Blank	3	— —	— —	-007
—	—	AQ	Trip Blank	2	1 —	— —	-008

Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	Reduced Sandoval County list of #
										X
										X
										X
										X
										X
							X			
							X			
			X				X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
6/7	1505					
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					6/7/23	15:05

Remarks: Please see reduced Sandoval County Landfill analyte list.

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Sandoval County Landfill

ALTERNATE PARAMETER LIST

Inorganic Parameters	EPA Method
Ammonia as N, NH_3-N	350.2
Bicarbonate, HCO_3^- (as $CaCO_3$)	310.1
Carbonate, CO_3^{2-} (as $CaCO_3$)	310.1
Nitrate as N, NO_3-N	300.0
Phosphate, PO_4	300.0
Chloride, Cl^-	300.0
Fluoride, F	300.0
Sulfate, SO_4^{2-}	300.0
Total Dissolved Solids, TDS	160.1
Total Kjeldahl Nitrogen, TKN	351.3
Total Nitrogen, TN	Calculated
Total Organic Carbon, TOC	415.2
pH	
Specific Conductivity	
Aluminum, Al	200.7
Arsenic, As	200.8
Barium, Ba	200.7
Calcium, Ca	200.7
Chromium, Cr	200.7
Cobalt, Co	200.7
Iron, Fe	200.7
Lead, Pb	200.8
Magnesium, Mg	200.7
Manganese, Mn	200.7
Potassium, K	200.7
Sodium, Na	200.7
Uranium, U	200.8
Zinc, Zn	200.7
All Standard Landfill VOCs	8260
1,2-Dibromo-3-chloropropane	504
1,2-Dibromoethane	504
Total Phenolics	420.3/9067
Additional bottle Sets:	

8260 Field Blank (3 VOAs)
8260 Dupe (3 VOAs)
Trip Blank

Exhibit G: NMED Correspondence

Exhibit G.1: Notification of Potential Exceedance (July 19, 2023)

Parkhill

July 19, 2023

Mr. William Schueler
Environmental Specialist
New Mexico Environment Department
Solid Waste Bureau
P.O. Box 5469
Santa Fe, NM 87502-5469

Re: 40111.22 Sandoval County Landfill: Groundwater Monitoring Report
Notification of Potential Exceedances

Dear Mr. Schueler:

On behalf of our client, Sandoval County, Parkhill is providing NMED Solid Waste Bureau (SWB) this correspondence summarizing the preliminary laboratory analytical results for groundwater samples collected at the Sandoval County Landfill (SCLF) on June 7, 2023 from wells MW-2R, MW3R, MW-5R, MW-6R, and MW-7R. The preliminary results (received by Parkhill on July 12, 2023) summarized in Table 1 indicate a potential exceedance of well/parameter-specific established assessment monitoring levels (AMLs) for arsenic in wells MW-2R and MW-6R, and nitrate and arsenic in MW-7R. It has been previously demonstrated that the presence of several total metals at this site is likely attributable to natural formation sediment suspended in the sample.

TABLE 1
Parameters Meeting or Exceeding Regulatory Presumptive AML

Well I.D.	Parameter	Analytical Result (µg/L)	Established AML (mg/L)	Regulatory Presumptive AML (mg/L)	Established UTLV (mg/L)
MW-2R	Arsenic	0.0059	0.0057	0.005	0.0079
MW-6R	Arsenic	0.0087	0.0086	0.005	0.011
MW-7R	Nitrate Arsenic	6.9 0.0070	5.0 0.006	5.0 0.005	N/A 0.007

Notes:
N/A: UTLV not assigned for this parameter
Bold italics indicates that Established UTLV has been met or exceeded

Consistent with the reporting requirements, Parkhill will submit detailed results of the monitoring and analytical data for the June 7, 2023, sampling event to SWB on or before September 4,2023. In accordance with the requirements of 20.9.9.11.C(1) NMAC, a copy of this correspondence is also being provided to SCLF to be placed in the site's Facility Operating Record.

333 Rio Rancho Boulevard NE | Suite 400 | Rio Rancho, New Mexico 87124 | 505.867.6990 Parkhill.com

We appreciate the Bureau's review of the enclosed information. Please contact us with your questions or comments at 505.504.7765.

Sincerely,

PARKHILL

By _____
Andrew N. Yuhas, PG
Professional Geologist

ANY/pg

cc: Mr. Mark Hatzenbuhler, Director of Public Works, Sandoval County
Mr. Chris Perea, Landfill Manager, Sandoval County Landfill (Facility operating record)
Mr. John Offerson, Environmental Scientist, NMED Solid Waste Bureau

Parkhill

Exhibit G.2: NMED Approval of Groundwater Monitoring Wells MW-2 and MW-3 Replacement Workplan (September 18, 2019)

NEW MEXICO
ENVIRONMENT DEPARTMENT

Harold Runnels Building
1190 Saint Francis Drive, PO Box 5469
Santa Fe, NM 87502-5469
Telephone (505) 827-2855
www.env.nm.gov

Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

September 18, 2019

Mr. Clay Kilmer, P.G., Hydrologist
Gordon Environmental/PSC
333 Rio Rancho Blvd NE, Ste. 400
Rio Rancho, NM 87124
ckilmer@team-psc.com

Re: Sandoval County Landfill; Work Plan for Replacement of Ground Water Monitoring Wells MW-2 and MW-3

Dear Mr. Kilmer:

The Solid Waste Bureau (Bureau) has reviewed the Monitoring Well MW-2 and MW-3 Decommissioning and Replacement Work Plan (Plan) for the Sandoval County Landfill (Landfill) submitted by Gordon Environmental/PSC on August 12, 2019. The Plan documents the steady decline of ground water elevations beneath the Landfill. In order to facilitate ground water sampling throughout the post-closure care period, the Plan seeks to extend the screened groundwater interval from the prescriptive 20 feet to 40 feet via replacement wells MW-2R and MW-3R.

The Bureau gives specific approval for the installation of monitoring wells MW-2R and MW-3R with 40-foot screened intervals. Per a phone conversation on September 11, 2019, between myself and Mike Crepeau, the Landfill requested moving the locations of each well approximately 50 feet from the proposed locations in the Plan. The Bureau approves the new locations proposed for monitoring wells MW-2R and MW-3R. Provide an update to the Plan showing the new locations of each replacement well.

The Bureau gives specific approval to discontinue ground water sampling of MW-2 and MW-3 upon construction of MW-2R and MW-3R and to convert MW-2 and MW-3 for use as piezometers. Provide an amendment to the Landfill's Ground Water Monitoring System Plan once the decommissioning of MW-2 and MW-3 and drilling of MW-2R and MW-3R have been completed.

Should you have any questions, please feel free to contact me at (505) 383-2078, or by e-mail at james.dyer@state.nm.us.

Sincerely,

James R. Dyer
Hydrologist-SWB

cc: Mr. Mike Crepeau, P.E., Gordon Environmental/PSC, mcrepeau@team-psc.com
George Schuman, Permit Section Manager, SWB
Paul Martinez, Enforcement Area I, SWB
Sandoval County Landfill Facility File
J. Dyer Reading File

Parkhill

Exhibit G.3: NMED Approval of Groundwater Monitoring Wells MW-2R and MW-3R Installation Report (August 19, 2020)

NEW MEXICO
ENVIRONMENT DEPARTMENT

Solid Waste Bureau
1190 Saint Francis Drive, Room N-2150
PO Box 5469
Santa Fe, NM 87502-5469
Telephone (505) 827-0197
www.env.nm.gov/solid-waste/

Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

August 19, 2020

Received
AUG 28 2020
Gordon Environmental / PSC

Mr. Andy Yuhas, Engineering Technologist
Gordon Environmental/PSC
333 Rio Rancho Blvd NE, Suite 400
Rio Rancho, NM 87124

Re: Sandoval County Landfill, Ground Water Monitoring Wells MW-2R and MW-3R Installation Report

Dear Mr. Yuhas:

The Solid Waste Bureau (Bureau or SWB) has reviewed the Ground Water Monitoring Wells MW-2R and MW-3R Installation Report (Report) for the Sandoval County Landfill (Landfill), received by email on July 2, 2020. The Report summarizes field activities related to the installation of replacement monitoring wells MW-2R and MW-3R.

In a letter dated September 18, 2019 the Bureau gave specific approval for the installation of monitoring wells MW-2R and MW-3R, including a 40-foot screened interval and location. The installation of monitoring wells MW-2R and MW-3R and the associated Report comply with 20.9.9.9.E, F, and J NMAC.

Should you have any questions, please feel free to contact me by e-mail at james.dyer@state.nm.us.

Sincerely,

James Dyer Digitally signed by James Dyer
Date: 2020.08.19 14:22:34 -06'00'

James R. Dyer
Hydrologist

cc: Mr., Mark Hatzenbuhler, Public Works Director, Sandoval County Landfill, 2708 Iris Road NE, Rio Rancho, NM 87144
Joan Snider, Chief, SWB
George Schuman, Permit Section Manager, SWB
Paul Martinez, Enforcement Area I, SWB
Sandoval County Landfill Facility File
J. Dyer Reading File

Parkhill

Exhibit G.4: NMED Approval of Analytical Limits for MW-2R and MW-3R (October 6, 2020)

NEW MEXICO
ENVIRONMENT DEPARTMENT

Solid Waste Bureau
1190 Saint Francis Drive, Room N-2150
PO Box 5469
Santa Fe, NM 87502-5469
Telephone (505) 827-0197
www.env.nm.gov/solid-waste/

Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

October 6, 2020

Mr. Mark Hatzenbuhler, Director of Public Works
Sandoval County
2708 Iris Road NE
Rio Rancho, NM 87144

Re: Sandoval County Landfill, 2020 Annual Ground Water Monitoring Report

Dear Mr. Hatzenbuhler:

The Solid Waste Bureau (Bureau) has reviewed the 2020 Annual Groundwater Monitoring Report (Report) for the Sandoval County Landfill (Landfill), dated September 24, 2020. Samples were collected at monitoring wells MW-2R, MW-3R, MW-5R, MW-6R, and MW-7R at the Landfill on June 17, 2020. MW-2R and MW-3R are recent replacements for MW-2 and MW-3. The Report was not received within 90 days of sampling but was submitted prior to an extended submittal deadline approved by the Bureau.

In monitoring well MW-2R, arsenic, manganese, and total phenolics were detected at concentrations above their established Assessment Monitoring Levels (AML). The reported concentration for manganese was also above the established Upper Tolerance Limit Value (UTLV) and above the corresponding Ground Water Protection Standard (GWPS). Arsenic was detected at a higher concentration than the established AML but below the GWPS. Total phenolics were detected at a higher concentration than the established AML and the GWPS.

In monitoring well MW-3R, manganese was detected at a higher concentration than the established AML but below the GWPS. Total phenolics were detected at a higher concentration than the established AML and the GWPS.

Historical data indicates the elevated concentrations of manganese and arsenic are likely results of natural fluctuations in groundwater quality. A June 2016 demonstration showed that the past exceedances at MW-2 and MW-3 are due to naturally occurring concentrations in the water-bearing formation and maybe related to suspended sediments in water samples and not the result of Landfill operations. As MW-2R and MW-3R were recently installed, the Bureau will postpone the determination of assessment monitoring for total phenolics at MW-2R and MW-3R until reviewing results of the 2021 Report.

In replacement monitoring well MW-7R, nitrate was detected at a higher concentration than the established AML, but below the corresponding GWPS. The detected concentration of nitrate is within the range of historical results for this constituent. No further action is required at this time.

Included in the Report is the Landfill's request to adopt the background concentration values (BCVs), assessment monitoring levels (AMLs) and intrawell upper tolerance limit values (UTLVs) and reduced parameter list for replacement wells MW-2R and MW-3R that have already been established for wells MW-2 and MW-3.

The Report provided a comparison of water quality data for wells MW-2 and MW-3 to the analytical data for new wells MW-2R and MW-3R from the 06/17/20 sampling event. After careful review, it appears that the water quality results for wells MW-2R and MW-3R are statistically consistent with the historical water quality data for wells MW-2 and MW-3. As requested by the Landfill, the Bureau approves the BCVs, AMLs, and UTLVs from previous monitoring wells MW-2 and MW-3 be utilized for determination of exceedances for current monitoring wells MW-2R and MW-3R. Please submit the revised Groundwater Monitoring Plan and Groundwater Monitoring System Plan within 90 days of receipt of this letter.

The Report meets the requirements of 20.9.9 NMAC and your Ground Water Monitoring System Plan. Should you have any questions, please feel free to contact me by e-mail at james.dyer@state.nm.us.

Sincerely,

James Dyer Digitally signed by James Dyer
Date: 2020.10.07 13:10:19 -06'00'

James R. Dyer
Hydrologist, NMED-SWB

cc: Mr. Diego Y. Ramirez, Civil Engineer, Parkhill, dramirez@parkhill.com
Mr. Michael J. Crepeau, P.E., Associate, Parkhill, mcrepeau@parkhill.com
Paul Martinez, Enforcement Area I, NMED-SWB
Sandoval County Landfill Groundwater Monitoring File
J. Dyer Reading File

Exhibit H: Qualified Groundwater Scientist Certification

Exhibit H

Qualified Groundwater Scientist Certification

This is to certify that, to the best of my knowledge and belief, the attached Groundwater Monitoring Report for the June 2023 sampling event at the Sandoval County Landfill is accurate and complete. Based on the information provided in the attached Report, the following exceedances of the established assessment monitoring levels (AMLs) are noted:

1. **Arsenic in Well MW-2R.** The concentration of arsenic in well MW-2R exceeds the established AML but remains below the established UTLV.
2. **Arsenic in Well MW-6R.** The concentration of arsenic in well MW-6R exceeds the established AML but remains below the established UTLV.
3. **Nitrate in Well MW-7R.** The concentration of nitrate in well MW-7R exceeds the established AML but is below the GWPS. A UTLV for this parameter has yet to be established.
4. **Arsenic in Well MW-7R.** The concentration of arsenic in well MW-7R exceeds the established AML, and is equal to the established UTLV, but remains below GWPS.

As noted in the attached Groundwater Monitoring Report, the exceedances noted above are likely attributable to natural fluctuations in natural groundwater quality, or a source other than the Landfill.

Date: 9/1/2023

Signature of Qualified Groundwater Scientist

Andrew N. Yuhas, P.G.
Professional Geologist
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Parkhill
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505.867.6990