

Released Volume Calculation

Length	250 feet
Width	120 feet
Thickness	0.5 in

15,000 gal = 357 Est. Total Bbls Released

Volume = L*W*T

Total Released Volume =	15,000 gallons (US, dry)
	357 Bbls



Site Characterization Report and Remediation Workplan

August 28, 2025

**South Vacuum #274 SWD
(SW-392-00)
Produced Water Release
Incident # nAPP2523985227
Lea County, New Mexico**

Prepared For:

Clearwater SWD, LLC
P.O. Box 1476
Lovington, New Mexico 88260

Prepared By:

Crain Environmental
2925 East 17th Street
Odessa, Texas 79761

A handwritten signature in blue ink that reads 'Cynthia K. Crain'.

Cynthia K. Crain, P.G.



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1.0 Introduction

Crain Environmental (CE), on behalf of Clearwater SWD, LLC (Clearwater), has prepared this Site Characterization Report and Remediation Workplan for the produced water release at South Vacuum #274 SWD (Site), located approximately 16 miles west of Hobbs, in Lea County, New Mexico. The global positioning system (GPS) coordinates for the Release Site are 32.714002, -103.439334. The property surface rights are owned by the State of New Mexico. The location of the Site is depicted on Figure 1.

2.0 Background

Clearwater has applied to the New Mexico State Land Office (NMSLO) for a Salt Water Easement (Easement) at the Site. As a result of an Easement application, NMSLO has notified Clearwater that a "NMSLO 2025 field report noted spills around piping at the Salt Water easement" and has requested that Clearwater provide to the Oil Conservation Division (OCD) and NMSLO Environmental Compliance Office (ECO) all relevant information concerning the spills in the form of a site assessment workplan.

On July 7, 2022, Clearwater submitted a Remediation Report and Closure Request to the OCD for Incident #nAPP2209030874 at the South Vacuum #274 SWD. The release covered an area measuring approximately 90' x 80' to the east and southeast of the water tank. The produced water release covered a surface area of approximately 7,200 square feet. The OCD approved closure of the release on July 19, 2022.

On June 9, 2023, Clearwater observed a release from a flow line at the northwest corner of the well pad. Remediation was conducted, but not completed, and the release was not reported to the OCD at that time. A Notice of Release (NOR) was submitted to the OCD on August 28, 2025, and Incident # nAPP2523985227 was assigned. Figure 2 shows the release area.

This Site Characterization Report and Remediation Workplan has been prepared in accordance with 19.15.29.11 New Mexico Administrative Code (NMAC) and provides the results of assessment and remediation activities conducted at Incident # nAPP2523985227 and includes a proposal for completion of soil remediation.

3.0 NMOCD Closure Criteria

Cleanup standards for spills are provided in 19.15.29 NMAC. The cleanup standards (described in the rule as "Closure Criteria") are based primarily on depth to groundwater but are also based on other criteria. Three different Closure Criteria are provided in the rule. The most stringent apply to sites where groundwater is found within 50 feet of the ground surface or if the release occurred within one of the following areas:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
- Within 300 feet from an occupied permanent residence, school, hospital, institution or church.

South Vacuum #274 SWD
Site Characterization Report and Remediation Workplan



- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.
- Within 1,000 feet of any fresh water well or spring.
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
- Within 300 feet of a wetland.
- Within the area overlying a subsurface mine.
- Within an unstable area such as a karst formation.
- Within a 100-year floodplain.

CE reviewed available information to determine the Closure Criteria for the Site. The findings of this evaluation are summarized below.

3.1 Groundwater Evaluation

A review of the New Mexico Office of the State Engineer (NMOSE) records indicated there are three water wells located within 0.5 mile of the Site, and initial depth to groundwater measurements were provided for each well. Depth to groundwater in the three wells surrounding the Site ranged from 40 to 60 feet below ground surface (bgs). All wells were drilled prior to 1974. All wells located within 0.5 mile from the Site are listed in the table below. Figure 3 provides a 0.5-mile radius circle around the Site and shows the location of the three water wells within that radius. Based on the water well data available in NMOSE records, it will be assumed that depth to groundwater at the Site is less than 50 feet bgs. NMOSE water well records with depth to groundwater listed are provided in Appendix A.

Nearby Water Wells

Well ID	Location from Release Site	Year Installed	Use	Depth to Water (feet bgs)
L 06868	Approx. 2,600 feet to east	1971	N/A	57
L 06869	Approx. 1,800 feet to northeast	1971	N/A	60
L 07129	Approx. 1,600 feet to south	1973	N/A	40

3.2 Surface Features and Other Development

CE reviewed recent aerial photographs, topographic maps, the NMOSE Point of Discharge (POD) GIS website, and information available from the Lea County, New Mexico Central Appraisal District website. As shown on Figure 1, the Site is not located:

- Within 300 feet of any continuously flowing watercourse or any other significant watercourse.
 - No continuously flowing watercourses (rivers, streams, arroyos, etc.) are apparent within 300 feet of the Site in the aerial map (Figure 4).



- Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary highwater mark).
 - The aerial map (Figure 4) indicates there is not a lakebed, sinkhole or playa lake located within 200 feet of the Site; however, freshwater emergent wetlands are located approximately 900 feet northwest and 2,400 feet east of the Site. Additionally, a freshwater pond is located approximately 2,900 feet north of the Site.
- Within 300 feet from an occupied permanent residence, school, hospital, institution or church.
 - The Site Location Map (Figure 1) and information available from the Lea County, New Mexico Central Appraisal District do not show or list any permanent residence, school, hospital, institution or church located within 300 feet of the Site.
- Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes.
 - No wells or springs located within 500 feet of the Site appear in any of the NMOSE records reviewed by CE.
- Within 1,000 feet of any fresh water well or spring.
 - No freshwater wells or springs located within 1,000 feet of the Site appear in any of the records reviewed by CE.
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended.
 - Based on the property and other records review by CE, the Site is not located in incorporated municipal boundaries or within a defined municipal fresh water well field.
- Within the area overlying a subsurface mine.
 - Based on the property and other records reviewed by CE, the Site is not located within an area overlying a subsurface mine.

3.3 Wetlands, Floodplain, and Karst Geology

A review of the United States Fish and Wildlife Service (USFWS) wetlands map indicated the Site is not located within 300 feet of a wetland; however, freshwater emergent wetlands are located approximately 900 feet northwest and 2,400 feet east of the Site. Additionally, a freshwater pond is located approximately 2,900 feet north of the Site. The New Mexico Bureau of Land Management (BLM) karst potential map indicates the Site is located within a "low karst potential" area. Finally, a review of the Federal Emergency Management Act (FEMA) floodplain map indicates the release at the Site is located outside of a 100-year floodplain. Figures 4, 5, and 6 depict the USFWS map, the FEMA floodplain map, and the karst potential map, respectively.

3.4 Closure Criteria Currently Assumed Applicable to the Site

Based on the water well data available in NMOSE records, it will be assumed that depth to groundwater at the Site is less than 50 feet bgs and the most stringent NMOCD Closure Criteria associated with groundwater depths of less than 50 feet bgs will apply. A summary of the Closure Criteria is provided in the table below and in Table 1.



NMOCD Closure Criteria

Constituent of Concern		Closure Criteria Based on Depth to Groundwater (mg/kg)		
		≤ 50 feet bgs	51 feet to 100 feet bgs	> 100 feet bgs
Chloride (EPA 300)		600	10,000	20,000
TPH (EPA 8015M)	GRO + DRO + MRO	100	2,500	2,500
	GRO + DRO	NA	1,000	1,000
Total BTEX (EPA 8021 or 8260)		50	50	50
Benzene (EPA 8021 or 8260)		10	10	10

Notes: NA = not applicable
 bgs = below ground surface
 mg/kg = milligrams per kilogram
 GRO = gasoline range organics
 DRO = diesel range organics
 MRO = motor oil range organics
 TPH = total petroleum hydrocarbons
 BTEX = benzene, toluene, ethylbenzene, and total xylenes
 Green highlighted cells denote applicable Closure Criteria.

4.0 Site Assessment/Characterization Results

As per 19.15.29.11 NMAC, a Site Characterization Report will have the components described in Sections 4.1 through 4.5 of this document.

4.1 Site Map

As required by 19.15.29.11 NMAC, a scaled diagram showing significant Site infrastructure, sample point locations, and known subsurface features such as utilities is provided as Figure 2.

4.2 Depth to Groundwater

As discussed in Sections 3.1 and 3.4, depth to groundwater is assumed to be less than 50' bgs, and the most stringent NMOCD Closure Criteria will apply to the Site.

4.3 Wellhead Protection Area

The 0.5-mile wellhead protection area is shown on Figure 3. There were no other water sources, springs, or other sources of freshwater extraction identified within 0.5-mile of the Site.

4.4 Distance to Nearest Significant Watercourse

The horizontal distance to the nearest significant watercourse as defined in Subsection P of 19.15.17.7 NMAC is greater than 0.5-mile from the Site.



4.5 Summary of Delineation/Remediation Activities

As all sample locations were in areas that were not previously disturbed, compliance with the Cultural Properties Protection (CPP) Rule did apply, and an Archaeological Survey was completed by APAC of Carlsbad, New Mexico. The Archaeological Survey (NMCRIS Activity Number: 159334) reports that findings were negative, and no further archaeological review is required. Appendix D provides a copy of the Cultural resources Cover Sheet.

A biological desktop review was conducted, and no sensitive wildlife or plant species were found in proximity to the subject Site. A copy of the U.S. Fish & Wildlife Service database review and the New Mexico Habitat Assessment Tool (NM CHAT) map is included in Appendix E.

Beginning on June 10, 2023, affected soil was excavated from the release area until five-point composite confirmation samples were collected from the sidewalls (S-1 through S-11) and the bottom (S-12 through S-16) on June 21, 2023.

All samples were placed in laboratory prepared containers, properly labeled, immediately placed on ice, and hand delivered to Cardinal Laboratories (Cardinal) of Hobbs, New Mexico for analysis of total petroleum hydrocarbons (TPH) by EPA Method 8015 Modified, benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B, and chlorides by EPA Method 300.0.

Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations and concentrations. Appendix D provides a copy of the laboratory report and chain-of-custody documentation. Appendix E provides a photographic log that documents assessment activities.

Referring to Table 1, concentrations of benzene and total BTEX were reported below the test method detection limits in each sample. Concentrations of TPH were reported above the Closure Criteria in sample S-1 (118.5 mg/kg), and concentrations of chlorides were reported above the Closure Criteria in all samples except sidewall samples S-4, S-6, and S-9, and in all bottom samples (S-12 through S-16).

Excavation continued until five-point composite samples were collected from the sidewalls (S-1 through S-3, S-5, S-7, S-8, S-10, S-11, and S-17 through S-19) and bottom (S-12 through S-16 and S-20) of the excavation on July 12, 2023, and from the sidewalls (S-1 through S-3, S-5, S-7, S-8, S-10, and S-11) and the bottom (S-12 through S-16) on August 11, 2023, and from sidewall samples (S-1, S-8, and S-11) on August 25, 2023.

All samples were placed in laboratory prepared containers, properly labeled, immediately placed on ice, and hand delivered to Cardinal for analysis of chlorides by EPA Method 300.0. Samples S-17 through S-20 (collected on July 12, 2023) were also analyzed for TPH and BTEX, and sample S-1 (collected on July 12, 2023) was also analyzed for TPH. As previous samples collected from S-1 through S-16 reported BTEX concentrations below the test method detection limits, additional samples from those locations were not analyzed for BTEX.



Table 1 provides a summary of the laboratory results. Figure 2 shows the sample locations and concentrations. Appendix D provides a copy of the laboratory reports and chain-of-custody documentation. Appendix E provides a photographic log that documents assessment activities. Referring to Table 1, concentrations of benzene and BTEX were reported below the test method detection limits or Closure Criteria in each sample. Concentrations of TPH were reported above the Closure Criteria in samples S-18 (297 mg/kg), S-19 (768.4 mg/kg), and S-20 (224.5 mg/kg). All other samples reported TPH concentrations below the test method detection limits or Closure Criteria. Concentrations of chlorides were reported above the Closure Criteria in samples S-17 (22,600 mg/kg), S-18 (15,600 mg/kg), S-19 (5,460 mg/kg), and S-20 (4,720 mg/kg).

All excavated soil (1,728 cubic yards) was disposed of at GM, Inc. (GMI) from June 19 through August 16, 2023. Waste manifests are included in Appendix F.

4.6 Laboratory Analytical Data Quality Assurance/Quality Control Results

Laboratory data in Report Numbers H233220, H233556, H234349, and H234636 generated by Cardinal, was reviewed to ensure that reported analytical results met data quality objectives. It was determined by quality control data associated with analytical results that reported concentrations of target analytes are defensible and that measurement data reliability is within the expected limits of sampling and analytical error. All analytical results are usable for characterization of soil at the Site. The laboratory analytical results are provided as Appendix D.

5.0 Proposed Remediation and Reclamation Activities

Clearwater proposes to excavate impacted soil encompassing sample points S-17 through S-20 until five-point confirmation samples collected from the bottom and sidewalls of the excavation(s) report TPH and chloride concentrations below the NMOCD Closure Criteria. Complete horizontal and vertical delineation will be conducted during excavation/remediation. As initial BTEX concentrations were reported below the test method detection limits, confirmation samples will not be analyzed for BTEX.

Due to the large footprint of the Site, Clearwater requests a variance from the NMOCD requirement of one soil sample per 200 square feet for confirmation sampling, and requests composite confirmation sample collection be performed for each 400 square feet of excavation floor and each 30 linear feet of excavation sidewall.

All excavated material will be transported under manifest to GMI.

Upon receipt of laboratory results that all TPH and chloride concentrations are below the Closure Criteria, the excavation will be backfilled to grade with non-impacted similar material obtained from a landowner pit. From the base of the excavation to a depth of 2' bgs will be backfilled with caliche, and from a depth of 2' bgs to surface will be backfilled with topsoil. Pursuant to 19.15.29.13 NMAC, the impacted surface areas will be restored to pre-release conditions. Surface grading will be performed to near original conditions and contoured to prevent erosion and ponding, promote stability, and preserve storm water flow patterns.



Seeding of the backfilled excavation area will be conducted during the next favorable growing season following completion of remediation. The remediated area will be re-seeded by seed drill method using the NMSLO Coarse Seed Mix (planted in the amount specified in the pounds live seed [PSL] per acre), and fresh water will be applied for two consecutive weeks following re-seeding.

The affected soil covers a surface area of approximately 7,200 square feet, and it is estimated that a total of approximately 2,000 cubic yards of soil will be excavated and hauled to disposal (272 additional yards).

6.0 Reclamation Monitoring

The Site will be monitored for vegetation growth to ensure that the reclamation activities performed were sufficient. Annual inspections (at a minimum) will take place on the location until revegetation is consistent with local natural vegetation density.

7.0 Schedule of Implementation

Clearwater proposes to begin remediation activities within 60 days of ECO and NMOCD approval of this Site Characterization Report and Remediation Workplan. The ECO will be notified at least 2 business days prior to the start of remediation activities, and sample notifications will be provided to ECO and NMOCD at least 2 business days prior to sample collection(s).

Remediation activities are anticipated to be completed within 90 days of initiation, and a Remediation Summary and Closure Report for Incident # nAPP2523985227 will be submitted to the NMOCD and ECO within 30 days of receiving the laboratory results of final confirmation samples.

Seeding will be conducted during the next favorable growing season following completion of reclamation activities, and a Final Reclamation Report will be submitted to the ECO and NMOCD upon establishment of successful revegetation.

8.0 Distribution

Copy 1: Mike Bratcher
New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division
Via email at: Mike.Bratcher@emnrd.nm.gov

Copy 2: Environmental Compliance Office
Via email at: ECO@nmslo.gov



TABLE

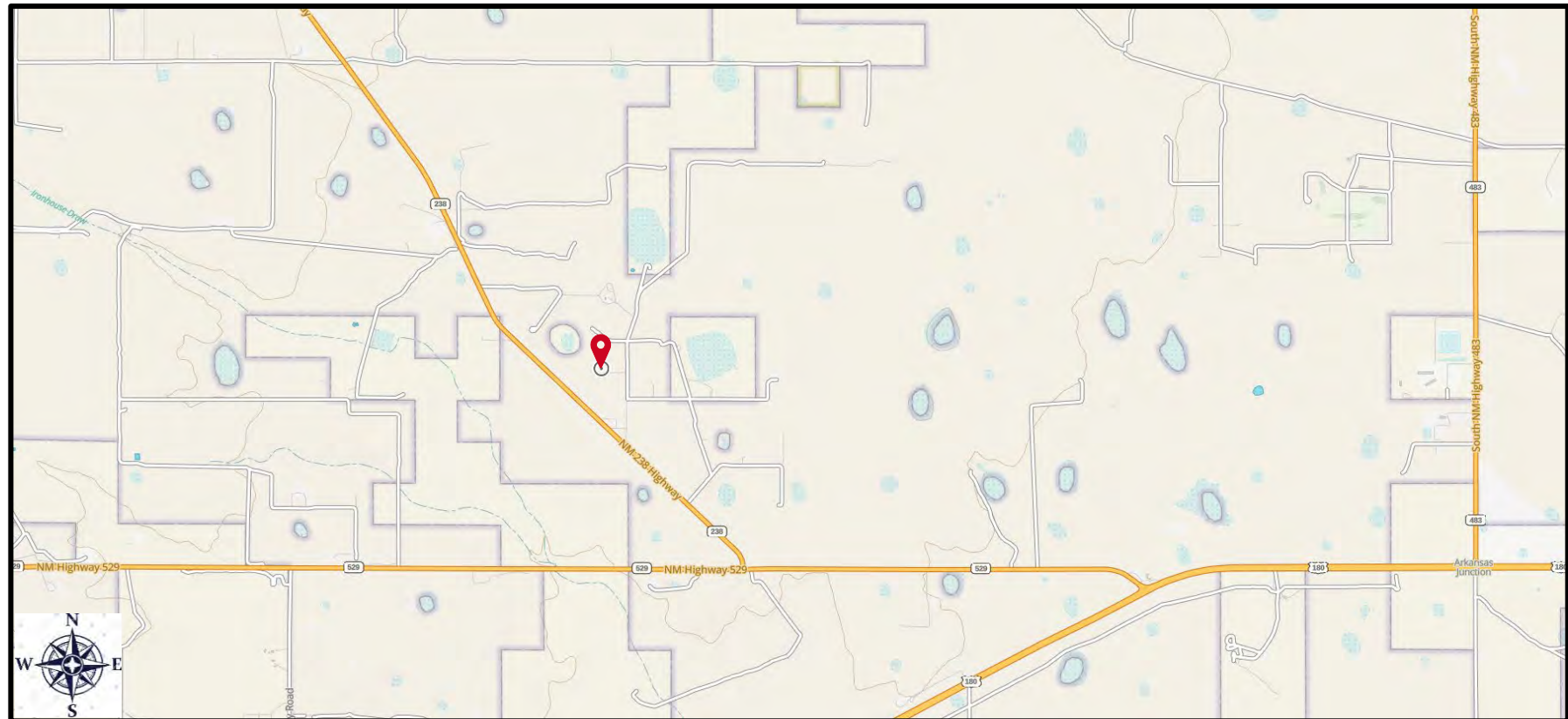
TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
CLEARWATER SWD, LLC
SOUTH VACUUM #274 SWD 30-025-31722
June 9, 2023 Release

Sample ID	Sample Date	Sample Depth (feet bgs)	Soil Status	TPH (GRO)	TPH (DRO)	TPH (MRO)	Total TPH	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Chloride
				milligrams per kilogram (mg/kg)									
NMOCD Closure Criteria				-	-	-	100	10	-	-	-	50	600
S-1	06/21/23	0-2	Excavated	<10.0	84.6	33.9	118.5	<0.050	<0.050	<0.050	<0.150	<0.300	10,900
	07/12/23	0-2	Excavated	<10.0	10.3	<10.0	10.3	--	--	--	--	--	6,400
	08/11/23	0-6	Excavated	--	--	--	--	--	--	--	--	--	752
	08/25/23	0-6	In Situ	--	--	--	--	--	--	--	--	--	416
S-2	06/21/23	0-2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	784
	07/12/23	0-2	Excavated	--	--	--	--	--	--	--	--	--	1,120
	08/11/23	0-6	In Situ	--	--	--	--	--	--	--	--	--	144
S-3	06/21/23	0-2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	7,860
	07/12/23	0-2	Excavated	--	--	--	--	--	--	--	--	--	4,000
	08/11/23	0-6	In Situ	--	--	--	--	--	--	--	--	--	224
S-4	06/21/23	0-2	In Situ	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	528
S-5	06/21/23	0-2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	22,800
	07/12/23	0-2	Excavated	--	--	--	--	--	--	--	--	--	2,080
	08/11/23	0-6	In Situ	--	--	--	--	--	--	--	--	--	144
S-6	06/21/23	0-2	In Situ	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	112
S-7	06/21/23	0-2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,960
	07/12/23	0-2	Excavated	--	--	--	--	--	--	--	--	--	2,000
	08/11/23	0-4.5	In Situ	--	--	--	--	--	--	--	--	--	288
S-8	06/21/23	0-2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	2,840
	07/12/23	0-2	Excavated	--	--	--	--	--	--	--	--	--	4,480
	08/11/23	0-4.5	Excavated	--	--	--	--	--	--	--	--	--	672
	08/25/23	0-4.5	In Situ	--	--	--	--	--	--	--	--	--	496
S-9	06/21/23	0-2	In Situ	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	528
S-10	06/21/23	0-2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	3,200
	07/12/23	0-2	Excavated	--	--	--	--	--	--	--	--	--	2,040
	08/11/23	0-4.5	In Situ	--	--	--	--	--	--	--	--	--	64.0
S-11	06/21/23	0-2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,010
	07/12/23	0-2	Excavated	--	--	--	--	--	--	--	--	--	1,440
	08/11/23	0-4	Excavated	--	--	--	--	--	--	--	--	--	1,180
	08/25/23	0-4	In Situ	--	--	--	--	--	--	--	--	--	224
S-12	06/21/23	2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	1,230
	07/12/23	2.5	Excavated	--	--	--	--	--	--	--	--	--	1,040
	08/11/23	4.5	In Situ	--	--	--	--	--	--	--	--	--	128
S-13	06/21/23	2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	7,060
	07/12/23	2.5	Excavated	--	--	--	--	--	--	--	--	--	640
	08/11/23	4.5	In Situ	--	--	--	--	--	--	--	--	--	48.0
S-14	06/21/23	2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	7,240
	07/12/23	2.5	Excavated	--	--	--	--	--	--	--	--	--	800
	08/11/23	4.5	In Situ	--	--	--	--	--	--	--	--	--	80.0
S-15	06/21/23	2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	20,000
	07/12/23	2.5	Excavated	--	--	--	--	--	--	--	--	--	656
	08/11/23	6	In Situ	--	--	--	--	--	--	--	--	--	80.0
S-16	06/21/23	2	Excavated	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	16,800
	07/12/23	2.5	Excavated	--	--	--	--	--	--	--	--	--	1,200
	08/11/23	6	In Situ	--	--	--	--	--	--	--	--	--	176
S-17	07/12/23	0-1	In Situ	<10.0	<10.0	<10.0	<10.0	<0.050	<0.050	<0.050	<0.150	<0.300	22,600
S-18	07/12/23	0-1	In Situ	<10.0	174	123	297	<0.050	<0.050	<0.050	<0.150	<0.300	15,600
S-19	07/12/23	0-1	In Situ	<10.0	687	81.4	768.4	<0.050	<0.050	<0.050	<0.150	<0.300	5,460
S-20	07/12/23	1	In Situ	<10.0	133	91.5	224.5	<0.050	<0.050	<0.050	<0.150	<0.300	4,720

- Notes:
- GRO: Gasoline Range Organics
 - DRO: Diesel Range Organics
 - MRO: Motor Oil Range Organics
 - : No NMOCD Closure Criteria established.
 - Bold and highlighting indicates the COC was detected above the NMOCD Closure Criteria.
 - < indicates the COC was below the appropriate laboratory method/sample detection limit
 7. Yellow highlighting indicates the COC concentration exceeds the NMOCD Closure Criteria
 8. Green highlighting indicates the soil has been excavated and disposed.
 - -: Samples were not collected for the constituent.



FIGURES

**LEGEND:**

Site Location

Figure 1**Site Location Map**

Clearwater SWD, LLC
South Vacuum #274 SWD
Lea County, New Mexico

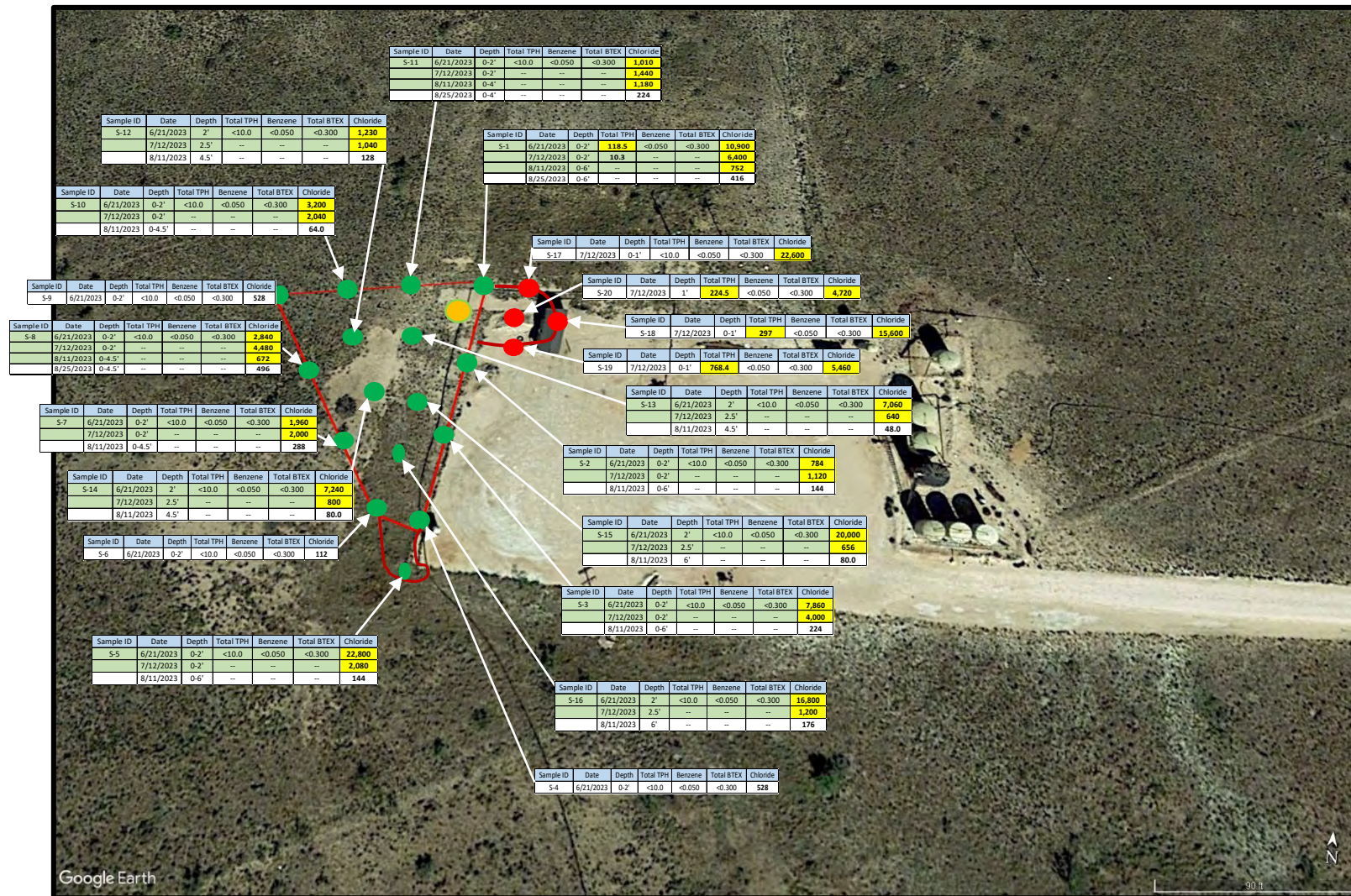
Drafted by: CC | Checked by: CC

Draft: August 24, 2025

GPS: 32.714002° -103.439334°

Base Map from GAIA GPS



**LEGEND:**

- Sample Location Needs Excavation
- Sample Location Needs No Further Excavation
- Release Point
- Excavation Boundary
- Highlighted concentrations exceed NMOCD Closure
- Highlighted Cells Indicate Soil Has Been Excavated and Disposed

Figure 2

Soil Sample Analytical Results Map
 Clearwater SWD, LLC
 South Vacuum #274 SWD
 June 9, 2023 Release
 Lea County, New Mexico

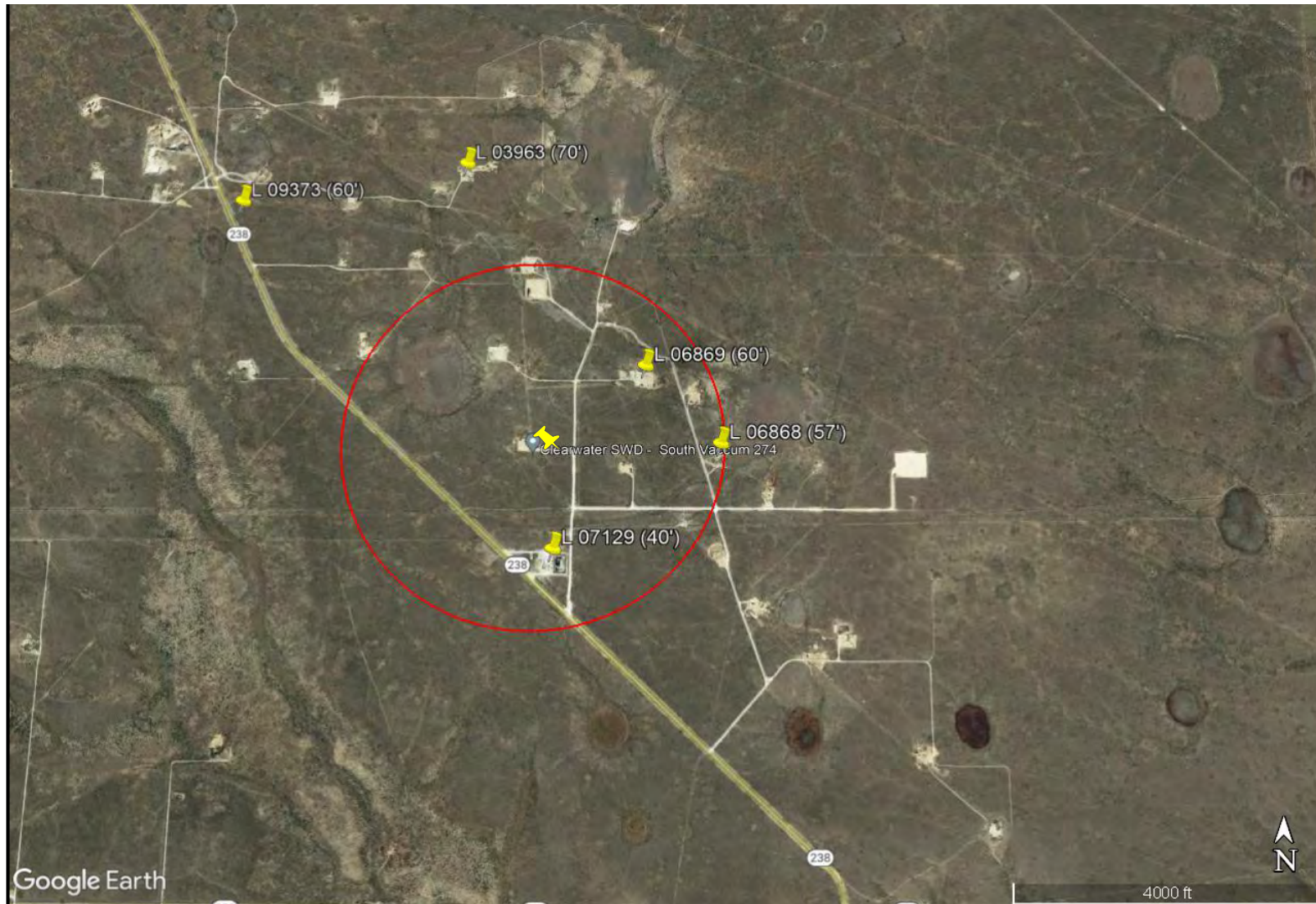
Drafted by: CC | Checked by: CC

Draft: August 24, 2025

GPS: 32.714002° -103.439334°

Base Map from Google Earth





LEGEND:



Site and Water Well Locations With Depth to Groundwater
(feet below ground surface)



0.5 Mile Radius

Base Map from Google Earth Pro

Figure 3

**Wellhead Protection
Area Map**

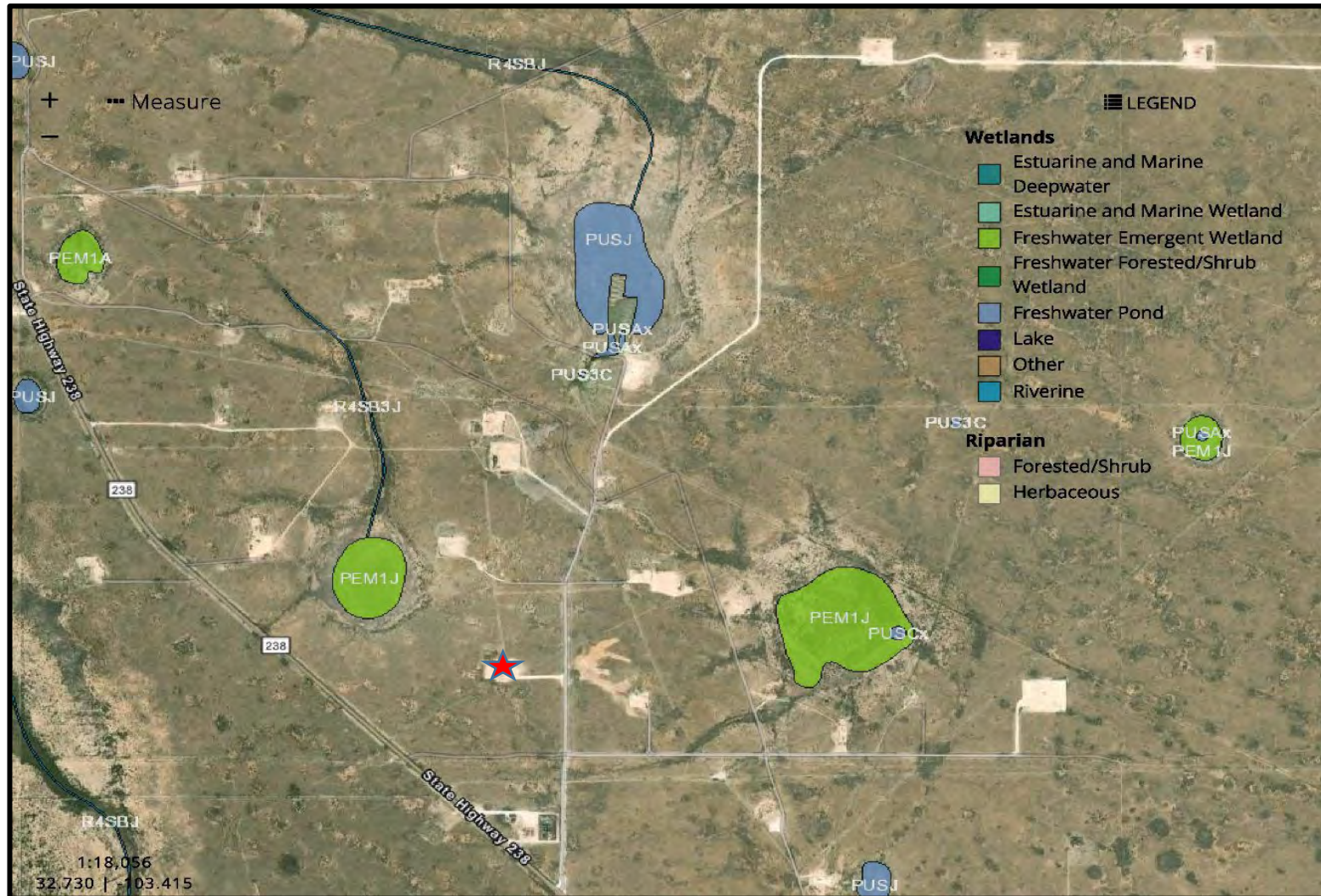
Clearwater SWD, LLC
South Vacuum #274 SWD
Lea County, New Mexico

Drafted by: CC | Checked by: CC

Draft: August 24, 2025

GPS: 32.714002° -103.439334°





LEGEND:



Site Location

Base Map from US Fish & Wildlife Service

Figure 4
National Wetlands
Inventory Map

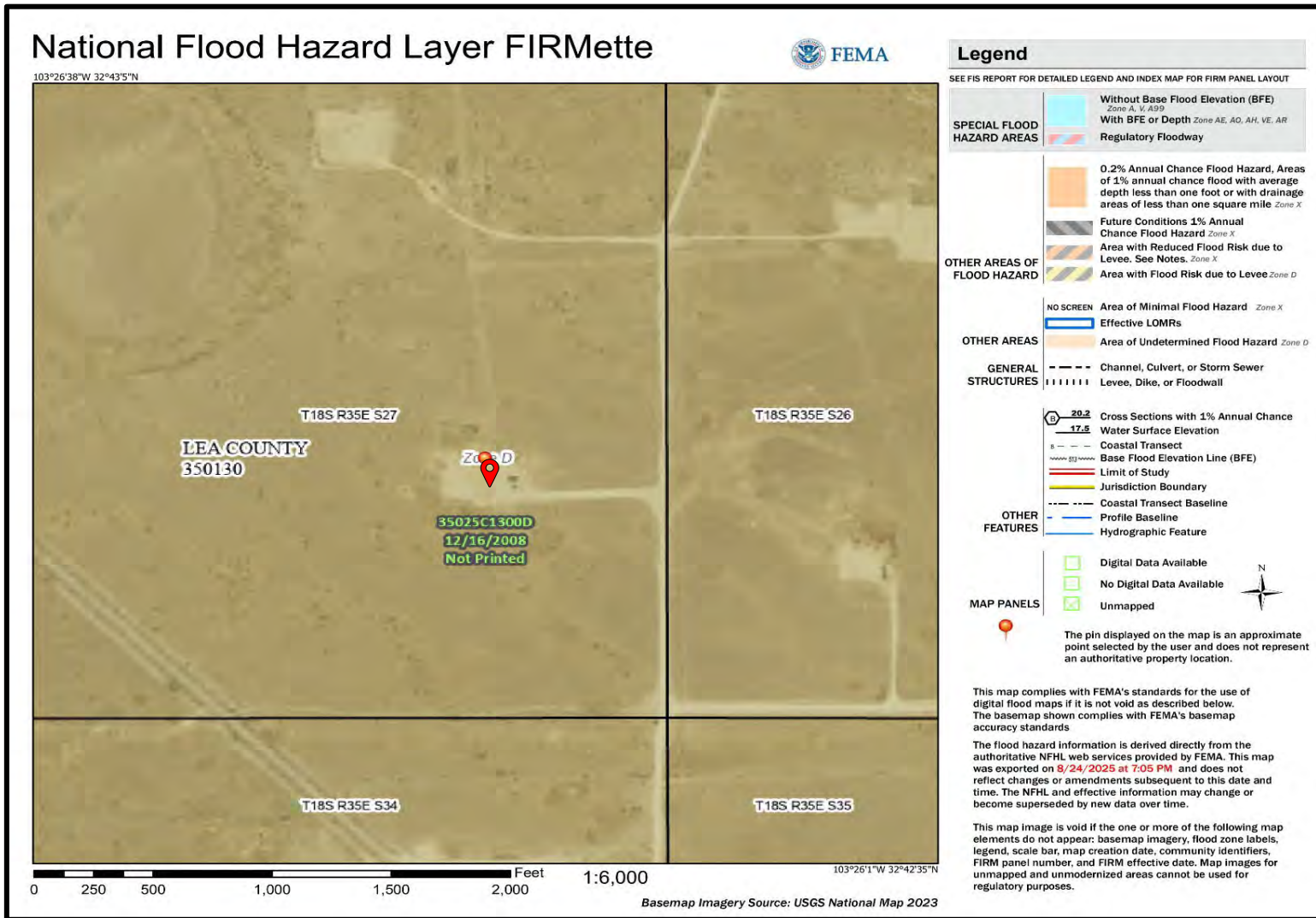
Clearwater SWD, LLC
South Vacuum #274 SWD
Lea County, New Mexico



Drafted by: CC | Checked by: CC

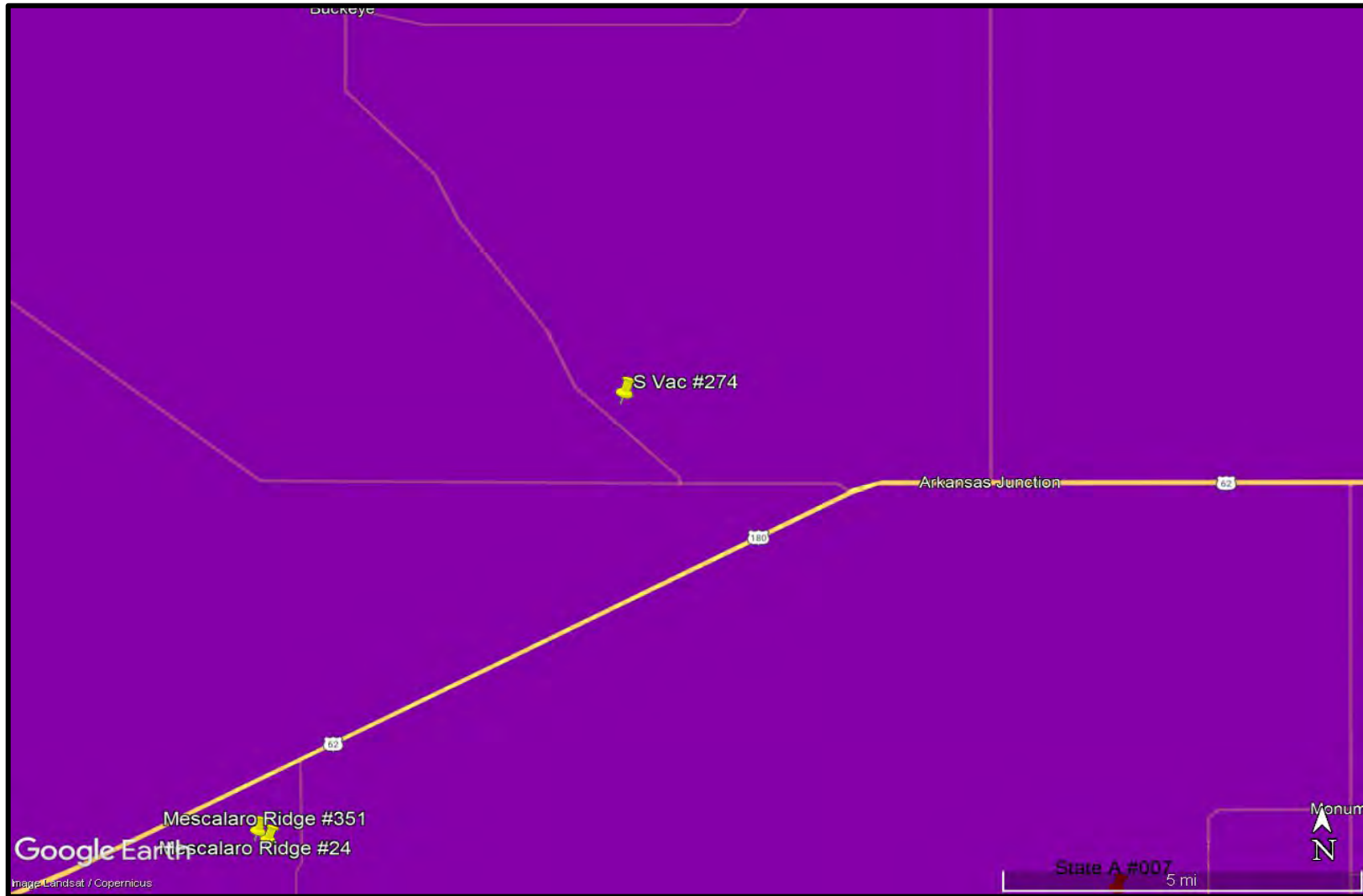
Draft: August 24, 2025

GPS: 32.714002° -103.439334°








LEGEND:  Site Location Base Map from FEMA	Figure 5 FEMA Floodplain Map Clearwater SWD, LLC South Vacuum #274 SWD Lea County, New Mexico		
		Drafted by: CC Checked by: CC	
		Draft: August 24, 2025	
		GPS: 32.714002° -103.439334°	



LEGEND:

	Low Karst Potential
	Medium Karst Potential
	High Karst Potential

Base Map from Google Earth Pro and BLM

Figure 6
Karst Potential Map
Clearwater SWD, LLC
South Vacuum #274 SWD
Lea County, New Mexico

Drafted by: CC Checked by: CC		
Draft: August 24, 2025		
GPS:	32.714002°	-103.439334°






APPENDIX A: NMOSE WATER WELL RECORDS

South Vacuum #274 SWD
Site Characterization Report and Remediation Workplan

Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
	L 06868	NW	SE	SW	26	18S	35E	647026.0	3620666.0 *	

* UTM location was derived from PLSS - see Help

Driller License:	46	Driller Company:	ABBOTT BROTHERS COMPANY		
Driller Name:					
Drill Start Date:	1971-10-30	Drill Finish Date:	1971-11-01	Plug Date:	1972-08-21
Log File Date:	1971-11-03	PCW Rcv Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	
Casing Size:	6.63	Depth Well:	110	Depth Water:	57

Water Bearing Stratifications:

Top	Bottom	Description
57	110	Sandstone/Gravel/Conglomerate

Casing Perforations:


Top	Bottom
68	110

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
	L 06869		NW	SW	26	18S	35E	646717.0	3620966.0 *	

* UTM location was derived from PLSS - see Help

Driller License:	531	Driller Company:	GRIFFIN WATER WELL SERVICE		
Driller Name:					
Drill Start Date:	1971-11-09	Drill Finish Date:	1971-11-11	Plug Date:	1972-12-21
Log File Date:	1971-11-16	PCW Rcv Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	
Casing Size:	7.00	Depth Well:	125	Depth Water:	60

Water Bearing Stratifications:

Top	Bottom	Description
70	125	Sandstone/Gravel/Conglomerate

Casing Perforations:


Top	Bottom
105	125

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Point of Diversion Summary

quarters are 1=NW 2=NE 3=SW 4=SE
quarters are smallest to largest

NAD83 UTM in meters

Well Tag	POD Nbr	Q64	Q16	Q4	Sec	Tws	Rng	X	Y	Map
L 07129	SE	SW	SW	34	18S	35E	645237.0	3618830.0 *		

* UTM location was derived from PLSS - see Help

Driller License:	208	Driller Company:	VAN NOY, W.L.		
Driller Name:	W L VAN NOY				
Drill Start Date:	1973-10-12	Drill Finish Date:	1973-10-15	Plug Date:	
Log File Date:	1973-10-24	PCW Rcv Date:		Source:	Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield:	
Casing Size:	6.63	Depth Well:	60	Depth Water:	40

Water Bearing Stratifications:

Top	Bottom	Description
50	60	Other/Unknown

Casing Perforations:

Top	Bottom
45	55

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



APPENDIX B: NMSLO CULTURAL RESOURCES COVER SHEET

South Vacuum #274 SWD
Site Characterization Report and Remediation Workplan



Stephanie Garcia Richard, Commissioner of Public Lands
State of New Mexico

NMSLO Cultural Resources Cover Sheet

Exhibit 25-08-04

NMCRIS Activity Number: 159334

(if applicable)

Exhibit Type (select one)

☐ **ARMS Inspection/Review** - Summarize the results (select one):

- ☐ (A) The entire area of potential effect or project area has been previously surveyed to current standards and **no cultural properties** were found within the survey area.
- ☐ (B) The entire area of potential effect or project area has been previously surveyed to current standards and **cultural properties were found** within the survey area.
- ☐ (C) The entire area of potential effect or project area has **not** been previously surveyed or **has not been surveyed** to current standards. A complete archaeological survey will be conducted and submitted for review.

☒ **Archaeological Survey**

Findings:

☒ **Negative** - No further archaeological review is required.

☐ **Positive** - Have avoidance and protection measures been devised? Select one:

No

Comments: The cultural survey located no cultural materials in the project area of the proposed South Vacuum #274 SWD Pad reclamation project for Gandy Corporation represented by Crain Environmental. These findings will allow for archaeological clearance to be recommended for +

Project Details:

NMSLO Lease Number (if available):

Cultural Resources Consultant: APAC Jeffrey Pangburn

Project Proponent (Applicant): Gandy Corporation represented by Crain Environmental

Project Title/Description: An Archaeological Survey for the Existing South Vacuum #274 SWD Pad Reclamation in Lea County, New Mexico

Project Location:

County(ies): Lea County, New Mexico

PLSS/Section/Township/Range): T18S R35E S27

For NMSLO Agency Use Only:

NMSLO Lease Number:

Acknowledgment-Only:

☐

Lease Analyst:

Date Exhibit Routed to Cultural Resources Office:

No person may alter the wording of the questions or layout of the cover sheet. The completion of this cover sheet by itself does not authorize anyone to engage in new surface disturbing activity before the review and approvals required by the Cultural Properties Protections Rule.

Form Revised 12 22



APPENDIX C: BIOLOGICAL DESKTOP REVIEW



United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna Road Ne
Albuquerque, NM 87113-1001
Phone: (505) 346-2525 Fax: (505) 346-2542



In Reply Refer To:

08/24/2025 19:10:46 UTC

Project Code: 2025-0140053

Project Name: South Vacuum #274 SWD

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Thank you for your recent request for information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of New Mexico wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 *et seq.*), the Migratory Bird Treaty Act as amended (16 USC 701-715), and the Bald and Golden Eagle Protection Act as amended (16 USC 668-668(c)). We are providing the following guidance to assist you in determining which federally imperiled species may or may not occur within your project area, and to recommend some conservation measures that can be included in your project design.

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the ESA of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the ESA is to provide a means whereby threatened and endangered species and

the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the ESA and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (NEPA; 42 USC 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at <https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>.

Candidate Species and Other Sensitive Species

A list of candidate and other sensitive species in your area is also attached. Candidate species and other sensitive species are species that have no legal protection under the ESA, although we recommend that candidate and other sensitive species be included in your surveys and considered for planning purposes. The Service monitors the status of these species. If significant declines occur, these species could potentially be listed. Therefore, actions that may contribute to their decline should be avoided.

Lists of sensitive species including State-listed endangered and threatened species are compiled by New Mexico State agencies. These lists, along with species information, can be found at the following websites.

Biota Information System of New Mexico (BISON-M): www.bison-m.org

New Mexico State Forestry. The New Mexico Endangered Plant Program:
<https://www.emnrd.nm.gov/sfd/rare-plants/>

New Mexico Rare Plant Technical Council, New Mexico Rare Plants: nmrareplants.unm.edu

Natural Heritage New Mexico, online species database: nhnm.unm.edu

WETLANDS AND FLOODPLAINS

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. These habitats should be conserved through avoidance, or mitigated to ensure that there would be no net loss of wetlands function and value.

We encourage you to use the National Wetland Inventory (NWI) maps in conjunction with ground-truthing to identify wetlands occurring in your project area. The Service's NWI program website, www.fws.gov/wetlands/Data/Mapper.html, integrates digital map data with other resource information. We also recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands.

MIGRATORY BIRDS

In addition to responsibilities to protect threatened and endangered species under the ESA, there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the Service (50 CFR 10.12 and 16 USC 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a Federal nexus) or a Bird/Eagle Conservation Plan (when there is no Federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>. We also recommend review of the Birds of Conservation Concern list (<https://www.fws.gov/media/birds-conservation-concern-2021>) to fully evaluate the effects to the birds at your site. This list identifies migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent top conservation priorities for the Service, and are potentially threatened by disturbance, habitat impacts, or other project development activities.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 thereby provides additional protection for both migratory birds and migratory bird habitat. Please visit <https://www.fws.gov/partner/council-conservation-migratory-birds> for information regarding the implementation of Executive Order 13186.

We suggest you contact the New Mexico Department of Game and Fish, and the New Mexico

Project code: 2025-0140053

08/24/2025 19:10:46 UTC

Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding State protected and at-risk species fish, wildlife, and plants.

For further consultation with the Service we recommend submitting inquiries or assessments electronically to our incoming email box at nmesfo@fws.gov, where it will be more promptly routed to the appropriate biologist for review.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Mexico Ecological Services Field Office
2105 Osuna Road Ne
Albuquerque, NM 87113-1001
(505) 346-2525

Project code: 2025-0140053

08/24/2025 19:10:46 UTC

PROJECT SUMMARY

Project Code: 2025-0140053
Project Name: South Vacuum #274 SWD
Project Type: Easement / Right-of-Way
Project Description: Salt Water Disposal facility
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@32.713842799999995,-103.43867655987142,14z>



Counties: Lea County, New Mexico

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Project code: 2025-0140053

08/24/2025 19:10:46 UTC

BIRDS

NAME	STATUS
Lesser Prairie-chicken <i>Tympanuchus pallidicinctus</i> Population: Southern DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1924 General project design guidelines: https://ipac.ecosphere.fws.gov/project/DHHTOZQJMRCTZMGKTKVYJMPNWA/documents/generated/9126.pdf	Endangered
Northern Aplomado Falcon <i>Falco femoralis septentrionalis</i> Population: U.S.A (AZ, NM) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1923 General project design guidelines: https://ipac.ecosphere.fws.gov/project/DHHTOZQJMRCTZMGKTKVYJMPNWA/documents/generated/8928.pdf	Experimental Population, Non- Essential

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act ² and the Migratory Bird Treaty Act (MBTA) ¹. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act (MBTA). Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their nests, should follow appropriate regulations and implement required avoidance and minimization measures, as described in the various links on this page.

The data in this location indicates that no eagles have been observed in this area. This does not mean eagles are not present in your project area, especially if the area is difficult to survey. Please review the 'Steps to Take When No Results Are Returned' section of the Supplemental Information on Migratory Birds and Eagles document to determine if your project is in a poorly surveyed area. If it is, you may need to rely on other resources to determine if eagles may be present (e.g. your local FWS field office, state surveys, your own surveys).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) ¹ prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Chestnut-collared Longspur <i>Calcarius ornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9437	Breeds May 1 to Aug 10

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper

Project code: 2025-0140053

08/24/2025 19:10:46 UTC

Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

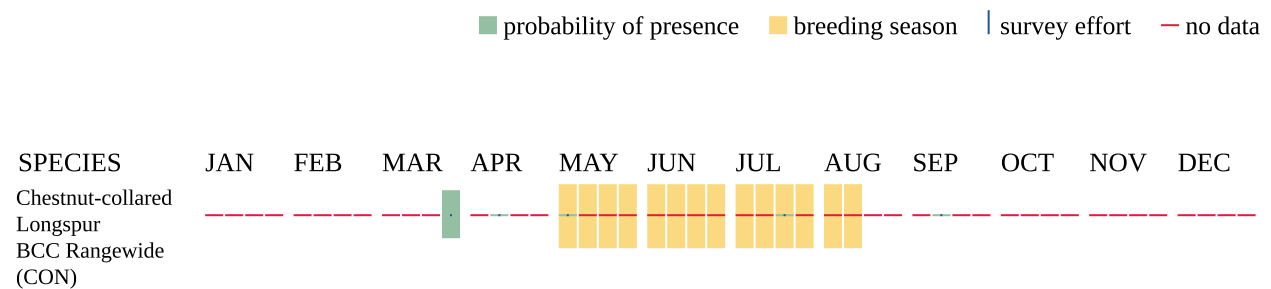
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

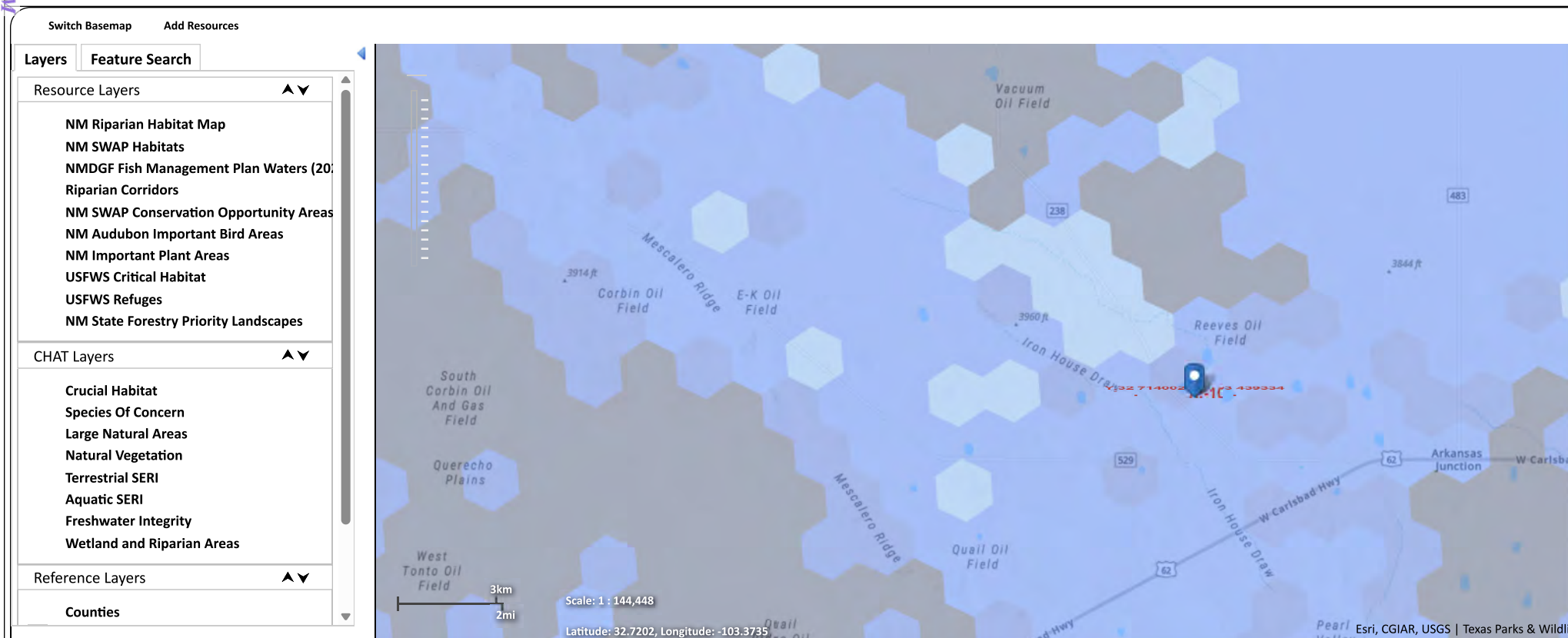


Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

- [new mexico department of game and fish \(http://www.wildlife.state.nm.us/\)](http://www.wildlife.state.nm.us/)
- [New Mexico Conservation Information System \(https://nhnm.unm.edu/data\)](https://nhnm.unm.edu/data)
- [BISON-M \(http://www.bison-m.org/\)](http://www.bison-m.org/)
- [NM ERT \(https://nmert.org\)](https://nmert.org)
- [NM CHAT \(http://nmchat.org/\)](http://nmchat.org/)
- [SWAP \(http://nmswap.org/\)](http://nmswap.org/)
- [Share with Wildlife \(http://www.wildlife.state.nm.us/conservation/share-with-wildlife/\)](http://www.wildlife.state.nm.us/conservation/share-with-wildlife/)

Environmental Review Tool





APPENDIX D: LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

South Vacuum #274 SWD
Site Characterization Report and Remediation Workplan



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 26, 2023

CINDY CRAIN

CRAIN ENVIROMENTAL

2925 E. 17TH ST.

ODESSA, TX 79761

RE: SOUTH VACUUM #274 FLOW LINE

Enclosed are the results of analyses for samples received by the laboratory on 06/21/23 14:53.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 1 (H233220-01)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEX	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10900	16.0	06/22/2023	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	84.6	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	33.9	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 96.6 % 48.2-134

Surrogate: 1-Chlorooctadecane 89.2 % 49.1-148

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 2 (H233220-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	784	16.0	06/22/2023	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 93.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 3 (H233220-03)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7860	16.0	06/22/2023	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 95.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 85.5 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 4 (H233220-04)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTX	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	06/22/2023	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 94.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 84.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received: 06/21/2023
Reported: 06/26/2023
Project Name: SOUTH VACUUM #274 FLOW LINE
Project Number: NONE GIVEN
Project Location: GANDY - LEA CO NM

Sampling Date: 06/21/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S - 5 (H233220-05)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	22800	16.0	06/22/2023	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 88.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 6 (H233220-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	06/22/2023	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 94.9 % 48.2-134

Surrogate: 1-Chlorooctadecane 86.1 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 7 (H233220-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1960	16.0	06/22/2023	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 88.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 8 (H233220-08)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2840	16.0	06/22/2023	ND	416	104	400	3.77	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 89.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 9 (H233220-09)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	06/22/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 93.7 % 48.2-134

Surrogate: 1-Chlorooctadecane 83.2 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 10 (H233220-10)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3200	16.0	06/22/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 88.0 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received: 06/21/2023
Reported: 06/26/2023
Project Name: SOUTH VACUUM #274 FLOW LINE
Project Number: NONE GIVEN
Project Location: GANDY - LEA CO NM

Sampling Date: 06/21/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S - 11 (H233220-11)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTX	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1010	16.0	06/22/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 76.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 67.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 12 (H233220-12)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEX	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1230	16.0	06/22/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 90.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 82.4 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 13 (H233220-13)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7060	16.0	06/22/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 72.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 64.7 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 14 (H233220-14)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7240	16.0	06/22/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 88.2 % 48.2-134

Surrogate: 1-Chlorooctadecane 80.8 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 15 (H233220-15)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	20000	16.0	06/22/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/23/2023	ND	176	88.2	200	1.01	
DRO >C10-C28*	<10.0	10.0	06/23/2023	ND	167	83.7	200	0.836	
EXT DRO >C28-C36	<10.0	10.0	06/23/2023	ND					

Surrogate: 1-Chlorooctane 86.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 79.0 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	06/21/2023	Sampling Date:	06/21/2023
Reported:	06/26/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 16 (H233220-16)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/23/2023	ND	2.16	108	2.00	2.48	
Toluene*	<0.050	0.050	06/23/2023	ND	2.11	106	2.00	2.50	
Ethylbenzene*	<0.050	0.050	06/23/2023	ND	2.06	103	2.00	1.98	
Total Xylenes*	<0.150	0.150	06/23/2023	ND	6.21	103	6.00	2.24	
Total BTEx	<0.300	0.300	06/23/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16800	16.0	06/22/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/22/2023	ND	161	80.7	200	7.25	
DRO >C10-C28*	<10.0	10.0	06/22/2023	ND	181	90.4	200	7.10	
EXT DRO >C28-C36	<10.0	10.0	06/22/2023	ND					

Surrogate: 1-Chlorooctane 84.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 96.7 % 49.1-148

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Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "C. D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 2

Company Name: <u>Crain Environmental</u>				BILL TO				ANALYSIS REQUEST																		
Project Manager: <u>Cindy Crain</u>				P.O. #:				<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> TPH 8015M BTEX Chlorides </div> <div style="width: 60%;"></div> </div>																		
Address: <u>2925 E. 17th St.</u>				Company: <u>Gandy Corp.</u>																						
City: <u>Delphos</u> State: <u>TX</u> Zip: <u>79761</u>				Attn: <u>Larry Gandy</u>																						
Phone #: <u>(575) 441-7244</u> Fax #: <u>-</u>				Address: <u>P.O. Box 1474</u>																						
Project #: <u>-</u> Project Owner: <u>Clearwater</u>				City: <u>Lovington</u>																						
Project Name: <u>South Vacuum #274 Flow Line</u>				State: <u>NM</u> Zip: <u>88260</u>																						
Project Location: <u>Lea Co. NM</u>				Phone #: <u>(575) 399-5721</u>																						
Sampler Name: <u>Cindy Crain</u>				Fax #: <u>(575) 396-0797</u>																						
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING																
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME												
<u>4233220</u>																										
1	S-1					X					X		4/21/23	1000												
2	S-2													1005												
3	S-3													1010												
4	S-4													1015												
5	S-5													1020												
6	S-6													1025												
7	S-7													1030												
8	S-8													1035												
9	S-9													1040												
10	S-10													1045												

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Relinquished By: <u>Cindy Crain</u>	Date: <u>4/21/23</u>	Received By: <u>[Signature]</u>	Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:
Relinquished By:	Date:	Received By:	All Results are emailed. Please provide Email address:
	Time: <u>1453</u>		<u>Cindy.Crain@gmail.com & Lgandy@gandycorporation.com</u>
			REMARKS:
Delivered By: (Circle One)	Observed Temp. °C <u>5.5</u>	Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	CHECKED BY: (Initials) <u>[Signature]</u>
Sampler - UPS - Bus - Other:	Corrected Temp. °C <u>4.9</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No	Turnaround Time: <u>Standard</u> <input checked="" type="checkbox"/> Rush <input type="checkbox"/>
			Thermometer ID #113 Correction Factor -0.6°C
			Bacteria (only) Sample Condition Cool Intact <input type="checkbox"/> Observed Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Corrected Temp. °C <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>

FORM-006 R 3.3 07/18/22

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 2 of 2

Company Name: <u>Crain Environmental</u>				BILL TO				ANALYSIS REQUEST														
Project Manager: <u>Cindy Crain</u>				P.O. #:				<div style="display: flex; justify-content: space-between;"> <div style="width: 20%;"> <u>794 8015 M</u> <u>BTX</u> <u>Chlorides</u> </div> <div style="width: 80%;"></div> </div>														
Address: <u>2925 E. 17th St.</u>				Company: <u>Gandy Corp.</u>																		
City: <u>Odessa</u> State: <u>TX</u> Zip: <u>79761</u>				Attn: <u>Larry Gandy</u>																		
Phone #: <u>(575) 441-7244</u> Fax #: <u>—</u>				Address:																		
Project #: <u>—</u> Project Owner: <u>Clearwater</u>				City:																		
Project Name: <u>South Vacuum #274 Flow Line</u>				State: Zip:																		
Project Location: <u>Lea Co., NM</u>				Phone #:																		
Sampler Name: <u>Cindy Crain</u>				Fax #:																		
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING														
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME								
<u>H233220</u>		<u>C</u>	<u>1</u>			<u>X</u>				<u>X</u>	<u>✓</u>		<u>4/21/23</u>	<u>1050</u>								
<u>11</u>	<u>S-11</u>													<u>1055</u>								
<u>12</u>	<u>S-12</u>													<u>1100</u>								
<u>13</u>	<u>S-13</u>													<u>1105</u>								
<u>14</u>	<u>S-14</u>													<u>1110</u>								
<u>15</u>	<u>S-15</u>													<u>1115</u>								
<u>16</u>	<u>S-16</u>																					

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Relinquished By: <u>Cindy Crain</u>	Date: <u>4/21/23</u>	Received By: <u>[Signature]</u>	Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:
Relinquished By:	Date:	Received By:	All Results are emailed. Please provide Email address:
	Time: <u>1453</u>		<u>Cindy.Crain@gmail.com & Lgandy@gandycorporation.com</u>
	Date:		REMARKS:
	Time:		
Delivered By: (Circle One)	Observed Temp. °C <u>5.5</u>	Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <u>yo</u>
Sampler - UPS - Bus - Other:	Corrected Temp. °C <u>4.9</u>		Turnaround Time: <u>Standard</u> <input checked="" type="checkbox"/> Rush <input type="checkbox"/>
			Bacteria (only) Sample Condition Cool Intact Observed Temp. °C
			<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No
			Thermometer ID #113 Correction Factor -0.6°C
			Corrected Temp. °C

FORM-006 R 3.3 07/16/22

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 17, 2023

CINDY CRAIN

CRAIN ENVIRONMENTAL

2925 E. 17TH STREET

ODESSA, TX 79761

RE: SOUTH VACUUM #274 FLOW LINE

Enclosed are the results of analyses for samples received by the laboratory on 07/12/23 12:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CRAIN ENVIRONMENTAL
CINDY CRAIN
2925 E. 17TH STREET
ODESSA TX, 79761
Fax To: (432) 272-0304

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO., NM		

Sample ID: S - 1 (H233556-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6400	16.0	07/13/2023	ND	416	104	400	7.41	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2023	ND	213	106	200	0.650	
DRO >C10-C28*	10.3	10.0	07/14/2023	ND	206	103	200	2.60	
EXT DRO >C28-C36	<10.0	10.0	07/14/2023	ND					
Surrogate: 1-Chlorooctane	88.5 %	48.2-134							
Surrogate: 1-Chlorooctadecane	92.3 %	49.1-148							

Sample ID: S - 2 (H233556-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	07/13/2023	ND	416	104	400	3.77	

Sample ID: S - 3 (H233556-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4000	16.0	07/13/2023	ND	416	104	400	3.77		

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIRONMENTAL
CINDY CRAIN
2925 E. 17TH STREET
ODESSA TX, 79761
Fax To: (432) 272-0304

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO., NM		

Sample ID: S - 5 (H233556-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2080	16.0	07/13/2023	ND	416	104	400	3.77		

Sample ID: S - 7 (H233556-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2000	16.0	07/13/2023	ND	416	104	400	3.77		

Sample ID: S - 8 (H233556-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4480	16.0	07/13/2023	ND	416	104	400	3.77		

Sample ID: S - 10 (H233556-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2040	16.0	07/13/2023	ND	416	104	400	3.77		

Sample ID: S - 11 (H233556-08)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1440	16.0	07/13/2023	ND	416	104	400	3.77		

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIRONMENTAL
CINDY CRAIN
2925 E. 17TH STREET
ODESSA TX, 79761
Fax To: (432) 272-0304

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO., NM		

Sample ID: S - 12 (H233556-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1040	16.0	07/13/2023	ND	416	104	400	3.77		

Sample ID: S - 13 (H233556-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	640	16.0	07/13/2023	ND	416	104	400	3.77	

Sample ID: S - 14 (H233556-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	07/13/2023	ND	416	104	400	3.77	

Sample ID: S - 15 (H233556-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	656	16.0	07/13/2023	ND	416	104	400	3.77		

Sample ID: S - 16 (H233556-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1200	16.0	07/13/2023	ND	416	104	400	3.77	

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Analytical Results For:

CRAIN ENVIRONMENTAL
CINDY CRAIN
2925 E. 17TH STREET
ODESSA TX, 79761
Fax To: (432) 272-0304

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO., NM		

Sample ID: S - 17 (H233556-14)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	1.99	99.5	2.00	1.53	
Toluene*	<0.050	0.050	07/13/2023	ND	1.99	99.3	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	1.99	99.4	2.00	1.23	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	5.87	97.8	6.00	1.40	
Total BTX	<0.300	0.300	07/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	22600	16.0	07/13/2023	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2023	ND	213	106	200	0.650	
DRO >C10-C28*	<10.0	10.0	07/14/2023	ND	206	103	200	2.60	
EXT DRO >C28-C36	<10.0	10.0	07/14/2023	ND					

Surrogate: 1-Chlorooctane 98.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 102 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIRONMENTAL
CINDY CRAIN
2925 E. 17TH STREET
ODESSA TX, 79761
Fax To: (432) 272-0304

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO., NM		

Sample ID: S - 18 (H233556-15)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/13/2023	ND	1.99	99.5	2.00	1.53	
Toluene*	<0.050	0.050	07/13/2023	ND	1.99	99.3	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/13/2023	ND	1.99	99.4	2.00	1.23	
Total Xylenes*	<0.150	0.150	07/13/2023	ND	5.87	97.8	6.00	1.40	
Total BTEx	<0.300	0.300	07/13/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	15600	16.0	07/13/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2023	ND	213	106	200	0.650	
DRO >C10-C28*	174	10.0	07/14/2023	ND	206	103	200	2.60	
EXT DRO >C28-C36	123	10.0	07/14/2023	ND					

Surrogate: 1-Chlorooctane 94.3 % 48.2-134

Surrogate: 1-Chlorooctadecane 105 % 49.1-148

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Analytical Results For:

CRAIN ENVIRONMENTAL
CINDY CRAIN
2925 E. 17TH STREET
ODESSA TX, 79761
Fax To: (432) 272-0304

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO., NM		

Sample ID: S - 19 (H233556-16)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2023	ND	1.99	99.5	2.00	1.53	
Toluene*	<0.050	0.050	07/14/2023	ND	1.99	99.3	2.00	1.32	
Ethylbenzene*	<0.050	0.050	07/14/2023	ND	1.99	99.4	2.00	1.23	
Total Xylenes*	<0.150	0.150	07/14/2023	ND	5.87	97.8	6.00	1.40	
Total BTX	<0.300	0.300	07/14/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 71.5-134

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5460	16.0	07/13/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2023	ND	213	106	200	0.650	
DRO >C10-C28*	687	10.0	07/14/2023	ND	206	103	200	2.60	
EXT DRO >C28-C36	81.4	10.0	07/14/2023	ND					

Surrogate: 1-Chlorooctane 90.5 % 48.2-134

Surrogate: 1-Chlorooctadecane 109 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIRONMENTAL
CINDY CRAIN
2925 E. 17TH STREET
ODESSA TX, 79761
Fax To: (432) 272-0304

Received:	07/12/2023	Sampling Date:	07/12/2023
Reported:	07/17/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	LEA CO., NM		

Sample ID: S - 20 (H233556-17)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/14/2023	ND	1.99	99.5	2.00	1.53		
Toluene*	<0.050	0.050	07/14/2023	ND	1.99	99.3	2.00	1.32		
Ethylbenzene*	<0.050	0.050	07/14/2023	ND	1.99	99.4	2.00	1.23		
Total Xylenes*	<0.150	0.150	07/14/2023	ND	5.87	97.8	6.00	1.40		
Total BTX	<0.300	0.300	07/14/2023	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 71.5-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4720	16.0	07/13/2023	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	07/14/2023	ND	213	106	200	0.650	
DRO >C10-C28*	133	10.0	07/14/2023	ND	206	103	200	2.60	
EXT DRO >C28-C36	91.5	10.0	07/14/2023	ND					

Surrogate: 1-Chlorooctane 91.1 % 48.2-134

Surrogate: 1-Chlorooctadecane 99.3 % 49.1-148

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: <u>Crain Environmental</u> Project Manager: <u>Cindy Crain</u> Address: <u>2925 E. 17th St.</u> City: <u>Odessa</u> State: <u>TX</u> Zip: <u>79761</u> Phone #: <u>(575) 441-7244</u> Fax #: <u>-</u> Project #: <u>-</u> Project Owner: <u>Clearwater</u> Project Name: <u>South Vacuum # 274 Flow Line</u> Project Location: <u>Lea Co., NM</u> Sampler Name: <u>Cindy Crain</u>		BILL TO P.O. #: Company: <u>Gandy Corp.</u> Attn: <u>Larry Gandy</u> Address: <u>P.O. Box 1476</u> City: <u>Lovington</u> State: <u>NM</u> Zip: <u>88260</u> Phone #: <u>(575) 399-5721</u> Fax #: <u>(575) 396-0747</u>		ANALYSIS REQUEST																							
FOR LAB USE ONLY		Lab I.D. <u>H233556</u>		Sample I.D.		(G)RAB OR (C)OMP. # CONTAINERS		MATRIX GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:				PRESERV. ACID/BASE: ICE / COOL OTHER:		SAMPLING DATE TIME		TPH 8015M Chlorides											
		1		S-1		C 1						X		7/12/23 1100		X											
		2		S-2										1105		X											
		3		S-3										1110		X											
		4		S-5										1115		X											
		5		S-7										1120		X											
		6		S-8										1125		X											
		7		S-10										1130		X											
		8		S-11										1135		X											
		9		S-12										1140		X											
		10		S-13										1145		X											

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Relinquished By: _____ Date: 7/1/2014 Received By: _____

Relinquished By: <i>Cindy Crain</i>		Date: <i>7/12/23</i>	Received By: <i>Amara</i>		Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:	
Relinquished By:		Time: <i>1237</i>	Received By:		All Results are emailed. Please provide Email address: <i>Cindy.Crain@gmail.com + Lgardy@lgardycorporation.com</i>	
		Date:			REMARKS:	
		Time:				
Delivered By: (Circle One)		Observed Temp. °C <i>22.8</i>	Sample Condition	CHECKED BY: (Initials) <i>J.C.</i>	Turnaround Time: <u>Standard</u> <input type="checkbox"/> <u>Rush</u> <input type="checkbox"/>	Bacteria (only) Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool Intact <input checked="" type="checkbox"/>	Cool Intact <input checked="" type="checkbox"/>		Thermometer ID #113 <i>#140</i>	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No
		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Correction Factor <i>-0.6°C</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No

FORM-006 R 3.3 07/16/22

† Cardinal cannot accept verbal changes. Please email changes to: info@cardinalcorp.com

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 2

Page 11 of 11

Company Name: <u>Crain Environmental</u>				BILL TO				ANALYSIS REQUEST											
Project Manager: <u>Cindy Crain</u>				P.O. #:															
Address: <u>2925 E. 17th St.</u>				Company: <u>Gandy Corp.</u>															
City: <u>Odessa</u> State: <u>TX</u> Zip: <u>79761</u>				Attn: <u>Larry Gandy</u>															
Phone #: <u>(575) 441-7244</u> Fax #: <u>-</u>				Address:															
Project #: <u>-</u> Project Owner: <u>Clearwater</u>				City:															
Project Name: <u>South Vacuum #274 Flow Line</u>				State: Zip:															
Project Location: <u>Lea Co. NM</u>				Phone #:															
Sampler Name: <u>Cindy Crain</u>				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		(GRAB OR (C)OMP. # CONTAINERS		MATRIX		PRESERV.		SAMPLING		<u>TPH 8015M</u> <u>BTEX</u> <u>Chlorides</u>							
				GROUNDWATER		WASTEWATER		SOIL		OIL									
				SLUDGE		OTHER:		ACID/BASE:		ICE / COOL									
								OTHER:											
H233556				C1		X		X		7/12/23		1150							
11		S-14										1155							
12		S-15										1200							
13		S-16										1205							
14		S-17										1210							
15		S-18										1215							
16		S-19										1220							
17		S-20																	

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Relinquished By: <u>Cindy Crain</u>	Date: <u>7/12/23</u>	Received By: <u>Maura Aldridge</u>	Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:
Relinquished By:	Time: <u>1237</u>	Received By:	All Results are emailed. Please provide Email address:
Delivered By: (Circle One)	Date:		<u>Cindy.crain@gmail.com + Lgandy@gandycorporation.com</u>
Sampler - UPS - Bus - Other:	Time:		REMARKS:
Observed Temp. °C <u>22.8</u>	Sample Condition	CHECKED BY: (Initials) <u>TO</u>	Turnaround Time: <u>Standard</u> <input type="checkbox"/> <u>Rush</u> <input type="checkbox"/>
Corrected Temp. °C	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID <u>#113</u>
			Correction Factor <u>-0.5°C</u> <u>#140</u> <u>7/12/23</u>
			Bacteria (only) Sample Condition
			Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No
			Observed Temp. °C
			Corrected Temp. °C

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 17, 2023

CINDY CRAIN

CRAIN ENVIROMENTAL

2925 E. 17TH ST.

ODESSA, TX 79761

RE: SOUTH VACUUM #274 FLOW LINE

Enclosed are the results of analyses for samples received by the laboratory on 08/11/23 11:34.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	08/11/2023	Sampling Date:	08/11/2023
Reported:	08/17/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 1 (H234349-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	08/15/2023	ND	400	100	400	3.92	

Sample ID: S - 2 (H234349-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/15/2023	ND	400	100	400	3.92	

Sample ID: S - 3 (H234349-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	08/15/2023	ND	400	100	400	3.92	

Sample ID: S - 5 (H234349-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	08/15/2023	ND	400	100	400	3.92	

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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received: 08/11/2023
Reported: 08/17/2023
Project Name: SOUTH VACUUM #274 FLOW LINE
Project Number: NONE GIVEN
Project Location: GANDY - LEA CO NM

Sampling Date: 08/11/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S - 7 (H234349-05)

Chloride, SM4500Cl-B		mg / kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	08/15/2023	ND	400	100	400	3.92		

Sample ID: S - 8 (H234349-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	08/15/2023	ND	400	100	400	3.92		

Sample ID: S - 10 (H234349-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	08/15/2023	ND	400	100	400	3.92	

Sample ID: S - 11 (H234349-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1180	16.0	08/15/2023	ND	400	100	400	3.92		

Sample ID: S - 12 (H234349-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	08/15/2023	ND	400	100	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received: 08/11/2023
Reported: 08/17/2023
Project Name: SOUTH VACUUM #274 FLOW LINE
Project Number: NONE GIVEN
Project Location: GANDY - LEA CO NM

Sampling Date: 08/11/2023
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: S - 13 (H234349-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/15/2023	ND	400	100	400	3.92	

Sample ID: S - 14 (H234349-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/15/2023	ND	400	100	400	3.92		

Sample ID: S - 15 (H234349-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	08/15/2023	ND	400	100	400	3.92		

Sample ID: S - 16 (H234349-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	08/15/2023	ND	400	100	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 7

Page 6 of 7

Company Name: <u>Crain Environmental</u>				BILL TO		ANALYSIS REQUEST																			
Project Manager: <u>Lindy Crain</u>				P.O. #:																					
Address: <u>2925 E. 17th St.</u>				Company: <u>Gardy Corp.</u>																					
City: <u>Doleson</u>		State: <u>TX</u>		Attn: <u>Larry Gardy</u>																					
Phone #: <u>(575) 411-7244</u>		Fax #: <u>-</u>		Address: <u>P.O. Box 1476</u>																					
Project #: <u>-</u>		Project Owner: <u>Clearwater</u>		City: <u>Lovington</u>																					
Project Name: <u>South Vacuum #274 Flowline</u>				State: <u>NM</u>		Zip: <u>88260</u>																			
Project Location: <u>Lea Co. NM</u>				Phone #: <u>(575) 399-5721</u>																					
Sampler Name: <u>Lindy Crain</u>				Fax #: <u>(575) 396-0797</u>																					
FOR LAB USE ONLY				MATRIX		PRESERV.		SAMPLING																	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME											
<u>H234349</u>																									
1	S-1	<u>C</u>	<u>1</u>			<u>X</u>					<u>X</u>		<u>8/11/23</u>	<u>0915</u>	<u>X</u>										
2	S-2													<u>0920</u>											
3	S-3													<u>0925</u>											
4	S-5													<u>0930</u>											
5	S-7													<u>0935</u>											
6	S-8													<u>0940</u>											
7	S-10													<u>0945</u>											
8	S-11													<u>0950</u>											
9	S-12													<u>0955</u>											
10	S-13													<u>1000</u>											

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Relinquished By: <u>Lindy Crain</u>	Date: <u>8/11/23</u>	Received By: <u>Keumara Eldridge</u>	Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
	Time: <u>1134</u>		All Results are emailed. Please provide Email address:	
Relinquished By:	Date:	Received By:	<u>Cindy.Crain@gmail.com & Lgardy@gardycorporation.com</u>	
	Time:		REMARKS:	
Delivered By: (Circle One)	Observed Temp. °C <u>19.0</u>	Sample Condition	CHECKED BY: (Initials) <u>Y.E.</u>	Turnaround Time: <u>Standard</u> <input checked="" type="checkbox"/> <u>Rush</u> <input type="checkbox"/>
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Bacteria (only) Sample Condition
		Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
				Observed Temp. °C
				Corrected Temp. °C
				Thermometer ID #443 <u>#140</u>
				Correction Factor <u>-0.5°C</u> <u>Y.E. 8/11/23</u>

FORM-000 R 5.2 10/07/21

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(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 2 of 7

Company Name: <u>Crain Environmental</u>				BILL TO				ANALYSIS REQUEST																															
Project Manager: <u>Cindy Crain</u>				P.O. #:																																			
Address: <u>2925 E. 17th St.</u>				Company: <u>Gardy Corp.</u>																																			
City: <u>Odessa</u> State: <u>TX</u> Zip: <u>79761</u>				Attn: <u>Larry Gardy</u>																																			
Phone #: <u>(575) 441-7244</u> Fax #: <u>-</u>				Address:																																			
Project #: <u>-</u> Project Owner: <u>Clearwater</u>				City:																																			
Project Name: <u>South Vacuum #274 Flowline</u>				State: Zip:																																			
Project Location: <u>LPA Co., NM</u>				Phone #:																																			
Sampler Name: <u>Cindy Crain</u>				Fax #:																																			
FOR LAB USE ONLY						MATRIX		PRESERV.		SAMPLING		Chlorides																											
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP. # CONTAINERS		GROUNDWATER		WASTEWATER		SOIL														OIL		SLUDGE		OTHER:		ACID/BASE:		ICE / COOL		OTHER:		DATE		TIME	
<u>H234349</u>				<u>C1</u>						<u>X</u>																				<u>X</u>						<u>8/11/23</u>		<u>1005</u>	
<u>11</u>		<u>S-14</u>		<u>↓</u>						<u>↓</u>																				<u>↓</u>						<u>↓</u>		<u>1010</u>	
<u>12</u>		<u>S-15</u>		<u>↓</u>						<u>↓</u>																				<u>↓</u>						<u>↓</u>		<u>1015</u>	
<u>13</u>		<u>S-16</u>		<u>↓</u>						<u>↓</u>																				<u>↓</u>						<u>↓</u>			

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Relinquished By: <u>Cindy Crain</u>		Date: <u>8/11/23</u>		Received By: <u>Temara Oldaker</u>		Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:	
Time: <u>1134</u>		Time:		Time:		All Results are emailed. Please provide Email address:	
Relinquished By:		Date:		Received By:		REMARKS:	
Time:		Time:		Time:		REMARKS:	
Delivered By: (Circle One)		Observed Temp. °C <u>19.0</u>		Sample Condition		Turnaround Time: <u>Standard</u> <input checked="" type="checkbox"/> <u>Rush</u> <input type="checkbox"/>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		Bacteria (only) Sample Condition	
				CHECKED BY: (Initials) <u>J.O.</u>		Cool Intact Observed Temp. °C	
						Thermometer ID #113-#140	
						Correction Factor -0.5°C <u>-2</u> <u>8/11/23</u>	
						Cool Intact Observed Temp. °C	
						Cool Intact Observed Temp. °C	

FORM-006 R 3.2 10/07/21

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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 30, 2023

CINDY CRAIN

CRAIN ENVIROMENTAL

2925 E. 17TH ST.

ODESSA, TX 79761

RE: SOUTH VACUUM #274 FLOW LINE

Enclosed are the results of analyses for samples received by the laboratory on 08/25/23 12:02.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

CRAIN ENVIROMENTAL
CINDY CRAIN
2925 E. 17TH ST.
ODESSA TX, 79761
Fax To:

Received:	08/25/2023	Sampling Date:	08/25/2023
Reported:	08/30/2023	Sampling Type:	Soil
Project Name:	SOUTH VACUUM #274 FLOW LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	GANDY - LEA CO NM		

Sample ID: S - 1 (H234636-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	08/29/2023	ND	432	108	400	0.00	

Sample ID: S - 8 (H234636-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	08/29/2023	ND	432	108	400	0.00	

Sample ID: S - 11 (H234636-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	08/29/2023	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Crain Environmental</u>				BILL TO				ANALYSIS REQUEST											
Project Manager: <u>Lindy Crain</u>				P.O. #: <u>-</u>															
Address: <u>2425 E. 17th St.</u>				Company: <u>Gandy Corp.</u>															
City: <u>Odessa</u> State: <u>TX</u> Zip: <u>79761</u>				Attn: <u>Larry Gandy</u>															
Phone #: <u>(575) 441-7244</u> Fax #: <u>-</u>				Address: <u>P.O. Box 1476</u>															
Project #: <u>-</u> Project Owner: <u>Clearwater</u>				City: <u>Lovington</u>															
Project Name: <u>South Vacuum #274 Flowline</u>				State: <u>NM</u> Zip: <u>88260</u>															
Project Location: <u>Lea Co., NM</u>				Phone #: <u>(575) 399-5721</u>															
Sampler Name: <u>Lindy Crain</u>				Fax #: <u>(575) 396-0797</u>															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING		Chilled					
				GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE				OTHER :			
				ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME							
<u>H234636</u>																			
<u>1 S-1</u>				<u>C 1</u>				<u>X</u>		<u>X</u>		<u>8/25/23 0900</u>		<u>X</u>					
<u>2 S-8</u>				<u>C 1</u>				<u>X</u>		<u>X</u>		<u>8/25/23 0910</u>		<u>X</u>					
<u>3 S-11</u>				<u>C 1</u>				<u>X</u>		<u>X</u>		<u>8/25/23 0920</u>		<u>X</u>					

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Relinquished By: <u>Cindy Crain</u>		Date: <u>8/25/23</u>		Received By: <u>Amara Oldaker</u>		Verbal Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:	
Time: <u>1202</u>		Time: <u>1202</u>		Time: <u>1202</u>		All Results are emailed. Please provide Email address:	
Relinquished By:		Date:		Received By:		REMARKS:	
Time:							
Delivered By: (Circle One)		Observed Temp. °C <u>51</u>		Sample Condition		CHECKED BY: (Initials)	
Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		Corrected Temp. °C		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		Turnaround Time: <u>Standard</u> <input checked="" type="checkbox"/> <u>RUSH</u> <input type="checkbox"/>	
Sampler - UPS - Bus - Other:				Thermometer ID #443 <u>H140</u>		Bacteria (only) Sample Condition	
				Correction Factor <u>-0.5°C</u> TO <u>8/25/23</u>		Cool <input type="checkbox"/> Intact <input type="checkbox"/> Observed Temp. °C	
						Corrected Temp. °C	

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APPENDIX E: PHOTOGRAPHIC DOCUMENTATION

South Vacuum #274 SWD
Site Characterization Report and Remediation Workplan

Appendix E
Clearwater SWD, LLC
South Vacuum #274 SWD



View to N of excavation (6/21/23).



View to NE of excavation (6/21/23).



View to E of excavation (6/21/23).



View to NE of excavation and stockpile (6/21/23).



View to NW of excavation (7/12/23).



View to N of excavation (7/12/23).

Appendix E
Clearwater SWD, LLC
South Vacuum #274 SWD



View to W of excavation (7/12/23).



View to SW of excavation (7/12/23).



View to N of excavation (8/11/23).



View to S of excavation (8/11/23).



View to SW of excavation (8/11/23).



View to N of excavation (8/25/23).

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State of New Mexico
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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 500171

QUESTIONS

Operator: CLEARWATER SWD, LLC P.O. Box 1476 Lovington, NM 88260	OGRID: 371101
	Action Number: 500171
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Prerequisites	
Incident ID (n#)	nAPP2523985227
Incident Name	NAPP2523985227 SOUTH VACUUM #274 SWD @ 30-025-37122
Incident Type	Produced Water Release
Incident Status	Remediation Plan Received
Incident Well	[30-025-37122] SOUTH VACUUM #274

Location of Release Source

Please answer all the questions in this group.

Site Name	South Vacuum #274 SWD
Date Release Discovered	06/09/2023
Surface Owner	State

Incident Details

Please answer all the questions in this group.

Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release

Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.

Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Cause: Normal Operations Flow Line - Injection Produced Water Released: 357 BBL Recovered: 0 BBL Lost: 357 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 500171

QUESTIONS (continued)

Operator: CLEARWATER SWD, LLC P.O. Box 1476 Lovington, NM 88260	OGRID: 371101
	Action Number: 500171
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

I hereby agree and sign off to the above statement	Name: Cindy Crain Email: cindy.crain@gmail.com Date: 08/28/2025
--	---

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QUESTIONS, Page 3

Action 500171

QUESTIONS (continued)

Operator: CLEARWATER SWD, LLC P.O. Box 1476 Lovington, NM 88260	OGRID: 371101
	Action Number: 500171
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Site Characterization	
<i>Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 26 and 50 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Greater than 5 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1000 (ft.) and ½ (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1000 (ft.) and ½ (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	Yes

Remediation Plan	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
Requesting a remediation plan approval with this submission	Yes
<i>Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.</i>	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	22800
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	768.4
GRO+DRO (EPA SW-846 Method 8015M)	687
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
On what estimated date will the remediation commence	09/15/2025
On what date will (or did) the final sampling or liner inspection occur	10/10/2025
On what date will (or was) the remediation complete(d)	10/31/2025
What is the estimated surface area (in square feet) that will be reclaimed	7200
What is the estimated volume (in cubic yards) that will be reclaimed	2000
What is the estimated surface area (in square feet) that will be remediated	7200
What is the estimated volume (in cubic yards) that will be remediated	2000
<i>These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.</i>	
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 4

Action 500171

QUESTIONS (continued)

Operator: CLEARWATER SWD, LLC P.O. Box 1476 Lovington, NM 88260	OGRID: 371101
	Action Number: 500171
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	fAB0000000061 TNM-55-95
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Not answered.
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
I hereby agree and sign off to the above statement	Name: Cindy Crain Email: cindy.crain@gmail.com Date: 08/28/2025
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 500171

QUESTIONS (continued)

Operator: CLEARWATER SWD, LLC P.O. Box 1476 Lovington, NM 88260	OGRID: 371101
	Action Number: 500171
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS, Page 6

Action 500171

QUESTIONS (continued)

Operator: CLEARWATER SWD, LLC P.O. Box 1476 Lovington, NM 88260	OGRID: 371101
	Action Number: 500171
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	{Unavailable.}

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	No

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CONDITIONS

Action 500171

CONDITIONS

Operator: CLEARWATER SWD, LLC P.O. Box 1476 Lovington, NM 88260	OGRID: 371101
	Action Number: 500171
	Action Type: [C-141] Site Char./Remediation Plan C-141 (C-141-v-Plan)

CONDITIONS

Created By	Condition	Condition Date
nvez	Remediation plan is approved as written except with the following conditions; 1. Clearwater SWD, LLC (Clearwater) request to forgo BTEX analysis from any future final sampling is approved. 2. Alternative sampling plan request not to exceed 400 square feet (ft.2) for each five (5) point composite (5pc) from the excavation floor per 19.15.29.12D (1b) NMAC is approved. Sidewall confirmation sample(s) will abide at 200 ft.2 for each 5pc per 19.15.29.12D (1c) NMAC. All other provisions addressed in 19.15.29.12D NMAC remain in effect. 3. Prior to backfilling the open excavation per 19.15.29.12D (2) NMAC, Clearwater must collect a minimum of one (1) 5pcs from the media being used as backfill to verify that it meets non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division.	9/19/2025
nvez	This is especially important for the material being used within the top four (4) feet from the ground surface. 4. Please submit as a reclamation report if re-seeding is completed prior to its submittal. 5. Clearwater has 90-days (December 18, 2025) to submit to OCD its appropriate or final remediation closure report.	9/19/2025